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EXTRACT

From an Act prescribing Rules for the Government of the State Library. passed March 8th. 1861.

SECTION 11. The Librarian shall cause to be kept a register of all books issued and returned; and all books taken by the members of the Legislature, or its officers, shall be returned at the close of the session. If any person injure or fail to return any book taken from the Library, he shall forfeit and pay to the Librarian, for the benefit of the Library, three times the value thereof; and before the Controller shall issue his warrant in favor of any member or officer of the Legislature, or of this State, for his per diem. allowance, or salary, he shall be satisfied that such member or officer has returned all books taken out of the Library by him, and has settled all accounts for injuring such books or otherwise.

SEC. 15. Books may be taken from the Library by the members of the Legislature and its officers during the session of the same, and at any time by the Governor and the officers of the Executive Department of this State who are required to keep their offices at the seat of government, the Justices of the Supreme Court, the Attorney-General, and the Trustees of the Library.

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1867 JANUARY 1st, 1867

Commencement of Fourteenth Volume

—OF THE—

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Published Every Saturday.

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The prospects of our journal are now brighter than at any former period. Our facilities for furnishing a valuable paper are constantly increasing.

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Following are some of the many opinions generously expressed by our neighbors:

MINING AND SCIENTIFIC PRESS.—The paper whose name we have just written, ranks among the leading scientific journals of the world. On mining matters it certainly has no equal, and more than all other causes combined, it has advanced the interests of the quartz miners of the Pacific Coast. Its editors are men of thorough education and large practical experience, and its list of contributors embraces many names distinguished in the various fields of scientific exploration and mechanical invention. The MINING AND SCIENTIFIC PRESS ought to circulate universally among intelligent Californians, to whom we most cordially recommend it, and its traveling agent, O. P. Truesdell, who is now canvassing this city and county, and will shortly visit other counties in the southern part of the State, in the interest.—[Stockton Daily Independent, Sept., 1866.

"SULPHURETS," and "Our Lady Correspondent," of the MINING PRESS, have each contributed an interesting article on Mines and Mining in Amador county. Hope they will keep up the fire. One of our subscribers complains that "Sulphuret" fell into an error, in stating that the sulphurets of the middle or Jackson range are richer than those on the upper or Pine Grove. He thinks it is just the reverse.—[Amador Ledger.

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We can give our testimony that it is always replete with useful and valuable information to miners and mechanics.—[Placer Herald.

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Interesting and important to miners and Mountain men.—[Butte Record.

Friends pleased with our efforts in the publication of the PRESS can render us essential aid by furnishing correspondence and all important information which may come under their observation, and by calling the attention of their neighbors to the commendable features of the paper; the appreciation of which favors will be duly manifested by the constant improvement of our journal.

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MINING AND SCIENTIFIC PRESS
PATENT AGENCY FOR THE PACIFIC COAST,
SAN FRANCISCO, CAL.

TO INVENTORS
ON THE
Pacific Coast.

Messrs. DEWEY & CO.

Take occasion to call your attention to the following rules, regulations and suggestions relative to the obtaining of LETTERS PATENT of the United States:

Self-Evident Facts.

Having had large experience, and gratifying success with the great variety of cases emanating on this coast, we feel confident of our abilities to assist inventors in patenting their inventions, saving them from vexatious delays, and from receiving worthless papers by reason of imperfect preparation of their claims before being sent to the Patent Office.

The branch of Patent Law is of itself a SPECIALITY of legal jurisprudence; or, as Mr Phillips, an eminent Patent lawyer, justly remarked: "The metaphysics of the law."

In early days but little preparation was needed, or but ordinary skill required to obtain a patent; but now, by reason of the multiplicity of inventions, and the numerous acts of Congress, found necessary to protect the inventor while the patent lasts, and to do justice to the people after it expires, the utmost care and skill are requisite in managing cases and obtaining a patent that will be of real value to the Patentee, and stand the test of passing through the legal ordeal of an infringement suit.

The general practice of the Patent office regarding the examination or issue of Letters Patent for inventions has not been materially changed for many years, yet there have been amendments added to the laws of 1861, 1863 and 1866, and which it is necessary for all parties managing an application to be conversant with. Old inventors invariably advise the employment of none but agents of *responsibility* and *experience*. As agents with such qualifications, we solicit your patronage.

Confidential Advice.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the MINING AND SCIENTIFIC PRESS. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice we make no charge. A pen-and-ink sketch and description of the invention should be sent together with a stamp for return postage. Write plain, do not use pencil or pale ink; be brief.

Remember all business committed to our care, and all consultations, are kept by us secret and strictly confidential. Our permanent business interests demand, as it were, a sacred compliance with our obligations as solicitors, and in reference to our strict fidelity in this respect we refer to one and all of the hundreds of inventors and patentees on this coast who have patronized us.

Letters Patent.

A patent is an open letter, embodying all the language of an inventor or his agent, contained in the specification, without alteration, and is granted to citizens of the United States, or those who have declared their intention of becoming such, and is signed by the Secretary of the Interior and the Commissioner of Patents, with the seal of the Patent Office affixed. Its jurisdiction is for the whole United States, for the term of seventeen years.

A patent right is personal property, and is assignable, but cannot be seized and sold on execution.

What Claims can be Patented?

A knowledge of Ancient and Modern Mechanics and familiarity with American and Foreign patent issues and rejections, enables us to determine in a measure in all cases what can be patented, and how much can be claimed as new and novel, and be covered by Letters Patent. This is one of the most difficult questions encountered by both old and new inventors—one in which an experienced counsel is of great service—and yet it can never be positively determined except by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate drawings and payment of the first government fees.

Steps Necessary to Procure a Patent.

The FIRST thing required is a model, if your invention can be represented by one. It is not only immediately necessary in preparing the papers, but the law demands that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimensions. A less size model will answer when more convenient. It should be neatly made, and of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it in a permanent manner.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express, or otherwise, to our address, namely: DEWEY & CO., *Mining and Scientific Press, San Francisco.* Prepay expenses and send express receipt to us by mail.

A full description must also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance, stating the name and address of the sender. On the receipt of the model and Government first fee of $15 in currency, the case is duly registered on our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government last fee of $20 in currency will be required. The law states that every patent shall be dated as of a day not later than six months after the time at which it was passed and allowed, and notice thereof sent to the applicant or his agent. And if the final fee for such patent be not paid within the said six months, the patent shall be withheld, and the invention therein described shall become public property as against the applicant therefor.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication, as the business can be well done by correspondence.

When the invention consists of a new article of manufacture, a medicine, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished, with full description of the entire preparation.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of Government officials, the period is sometimes extended to four or five months, and even more. We make a special point to advance our cases as rapidly as possible.

Saving of Time.

In urgent cases for an immediate patent, persons can deposit the amount of the last fees with us, in San Francisco, and have our Washington agent procure the *issue* of the papers as soon as granted, saving the two or three months time which would otherwise be required for the inventor to receive notice and then forward the money. Money advances for this purpose will be returned, should the application be rejected. By adopting this course, we are enabled, with our other advantages, to secure the *receipt* of patent papers to inventors on this Coast, at least four or five months sooner than can be done through agents in the East, without the applicant going to the hazardous expense of sending on the last fee before it is known whether the patent will be granted.

Expense of Applying for Patent.

The Government fee, on filing an application for a patent in the United States, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian, Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our citizens. The only discrimination made is against subjects of governments that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added fees for preparing the various documents and expense of drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, varies from $20 to $40.

Following is the list of Government fees:

On every caveat	$10
On every application for a patent, for seventeen years	15
On every application for a design, for 3 y'rs and 6 mos	10
On every application for a design, for seven years	15
On every application for a design, for fourteen years	30
On issuing each original patent	20
On filing a disclaimer	10
On every application for a re-issue	30
On every additional patent granted on a re-issue	30
On every application for an extension	50
On the grant of every extension	50
On appeal to the Examiners-in-Chief	10
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C.	25

Caveats.

A caveat is a description of the invention designed to be patented, lodged in the Patent Office before the patent is applied for, and while the inventor is perfecting his design. When *properly* made, it operates as a bar to applications respecting the same invention from any other quarter; but when improperly done, it is inoperative by reason of such defect. The Patent Office always returns a receipt for caveat papers with a copy of the laws governing the same, but does not seek to point out its incorrectness, unless there be some glaring defect.

If worth filing at all, these cases should be prepared with very great care and caution.

One inventor on this Coast, who had filed a caveat by an attorney, was, sometime afterward, surprised to find that his invention, which was a very important one, had been patented and was being brought out by an eastern company with a capital of more than a million of dollars. Upon inquiring at the Patent Office, he was informed that his caveat was inoperative by reason of imperfections and his not having complied with the law in that case as made and provided.

Our fee for the service varies from $10 to $20. The Government fee, under the new law, is reduced to ten dollars. This latter sum does not now apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat papers, we only require a sketch and description of the invention; no model being necessary.

If an inventor publicly uses and sells his invention, prior to making application for a patent, he cannot, afterward, prevent others from doing the same thing; and should any party put the invention into use, before such application for a patent is made, they could continue to use the specific machine or composition of matter after the patent is issued to another. Filing a caveat does not give the right to affix the words, "Patented," or "Patent applied for."

Patent Rejections.

First. Refusals are always made by the Patent Office if there is any informality in the specification, or if it does not contain the entire subject matter of the invention, and is not properly arranged and stamped. A slight omission often proves fatal.

Second. If the drawings are defective, and are not executed in an artistic manner in India ink, and on sheets of the required size, they are subject to rejection.

Third. Applications are always rejected where the claims conflict with others already patented.

If the rejection should be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case.

For the prosecution of such cases, obtaining references, making arguments, and personally attending to explain the case (through our agent in Washington), *we charge no second fee,* as is the case with some agencies, but attend to the business till finally allowed or rejected, without extra charge, beyond the Government fee.

Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unsurpassed facilities in securing favorable results. We have been successful in securing Letters Patent in many such cases. Our terms are very moderate.

Advantages to Patrons of Our Agency.

Some of the advantages to be obtained by patronizing us, may be enumerated as follows:

1. Inventors on this Coast having their applications for patents made out through our agency can sign their papers at once, and thus secure their rights at least *three months sooner* than by trusting the same to distant agencies, situated at New York or Washington.

2. As many of the inventions conceived here are especially adapted to the Pacific Coast, they should be properly brought out here, which can be accomplished (if the invention is a meritorious one) by illustrating the subject, with a careful description, in the columns of the "Mining and Scientific Press," *free of charge;* the inventor paying simply for the engraving, which will be executed at a moderate charge. The same cuts can be subsequently used for hooks, letters, or circulars. In a word, we are determined to make it of decided interest for every inventor on this Coast to patronize home talent and enterprise.

3. Most inventions on this Coast are for objects and purposes but little understood by parties at Washington or other parts of the East. Our mining machinery, processes and operations are best understood by those familiar with their use; and a personal, verbal explanation is oftentimes of important service, and enables us to be more successful than agents generally.

4. Remittances of money made by individual inventors to the Government sometimes miscarry, and it has frequently happened that applicants have not only lost their money, but their inventions, also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency. By sending duplicate correspondence to our Washington agent we avoid hazardous delays.

Dangers of Delay.

Situated so remote from the seat of Government, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by the extra time consumed in transmitting specifications from Eastern agencies back to this Coast for the signature of the inventor, or by reason of return for amendment when addressed directly by the inventor to the Government.

Re-Issues.

When, through "inadvertance, accident, or mistake," an *insufficient* or *defective* patent has been issued, the defects in the Specification and Claims can be cured by a *re-issue.* In order to obtain this, the inventor, or the holders of the patent, must surrender the patent, and file an amended specification and drawings, and a statement specifying the ground for asking for a re-issue. Re-issues are generally applied for after it has been found that the patent could not withstand litigation. It is, therefore, especially desirable that the new Specification and Claims should be prepared with great care and skill. Terms liberal in these cases.

Foreign Patents.

In addition to American patents, we secure, with the assistance of co-operative agents, claims in all foreign countries which grant patents, including Great Britain, France, Belgium, The Netherlands, Prussia, Austria, Russia, Spain, British India, Saxony, Hanover, Sardinia, Norway, Sweden, Australia, Mexico, Victoria, V. I.

Many valuable and important inventions of Americans are being yearly surreptitiously patented in foreign countries, some of which governments allow it, thus debarring those who have valuable inventions from their rights.

Patents obtained in England, France and Belgium, will secure the rights of an inventor among many millions of the most enlightened people on the globe; it is therefore very important, if the invention is valuable, to secure foreign patents.

Our schedule prices for obtaining foreign patents, in all cases, will be as low, or lower, than those of any other agency.

To Eastern Inventors.

Our close proximity to Mexico, Australia, and the Islands, enables us to obtain Letters Patent for you with much less *delay* and expense than they can be secured through any other agency in the United States.

Comparatively few inventors seem to be aware that Melbourne, in Australia, is a city nearly double in size to San Francisco, besides the adjacent colonies of great commercial and mineral importance. Inventions of all kinds, but especially those relating to the saving of gold and silver, if secured in Australia, will often prove of great value. We have competent agents there, and can promise that the business will be attended to with fidelity and dispatch.

DEWEY & CO.,
Patent Solicitors, Mining and Scientific Press Office,
505 Clay Street, San Francisco.

ESTABLISHED] [MAY, 1860.

VOLUME THIRTEEN
— OF THE —
Mining and Scientific Press,
COMMENCING JULY, 1866.

DEWEY & CO., Publishers.

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Mining Press.

INV. 1898.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

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SAN FRANCISCO, SATURDAY, JANUARY 6, 1866.

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San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	0 50 @ 7 00
Do Superfine	6 25 @ 6 75
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	1 95 @ 2 10
Oats, choice, ₱ 100 lb	1 50 @ 1 75
Barley, ₱ 100 lb	1 05 @ 1 12
Beans, ₱ 100 lb	2 25 @ 3 50
Potatoes, ₱ 100 lb	90 @ 1 00
Hay, ₱ ton	15 00 @19 00
Live Oak Wood, ₱ cord	8 00 @10 00
Beef, on foot, ₱ lb	@ 7
Beef, extra, dressed, ₱ lb	12½c@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	9 @ 10
Hogs, dressed, ₱ lb	13 @ 14
Groceries, Etc.	
Sugar, crushed, ₱ lb	16½@ —
Do China	10 @ 12½
Coffee, Costa Rica, ₱ lb	27½ @ —
Do Rio	26 @ —
Tea, Japan, ₱ lb	85 @ 95
Do Green	70 @ 90
Hawaiian Rice, ₱ lb	10 @ —
China do.	8 @ 10
Coal Oil, ₱ gal	1 10 @ 1 25
Candles, ₱ lb	24 @ 27
Ranch Butter, ₱ lb	55 @ 65
Isthmus do	35 @ 42½
Cheese, California, ₱ lb	20 @ 26
Eggs, ₱ doz	45 @ 47
Lard, ₱ lb	22 @ 23
Ham and Bacon, ₱ lb	25 @ —
Shoulders	20 @ 22
Soap—Pale & C. O	10 @ 12
Castile	12 @ 13

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	75@ 80
do pickled ₱ lb	60@ 70
do Oregon	35@ 40
do New York, ₱ lb	43@ 55
Cheese, ₱ lb	25@ 35
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	00@ 75
Lard, ₱ lb	@ 25
Hams and Bacon, ₱ lb	28@ 30
Cranberries, ₱ gal	75@ —
Potatoes, sweet, ₱ lb	5@ 8
do Irish, ₱ lb	1@ 2½
Tomatoes, ₱ lb	5@ 8
Onions, ₱ lb	4@ 6
Apples, No. 1, ₱ lb	4@ 10
Pears, table ₱ lb	3@ 10
Plums, dried, ₱ lb	15@ 25
Peaches, dried, ₱ lb	15@ 25
Grapes, ₱ lb	5@ 15
Oranges, ₱ doz	75@ 1 00
Lemons, ₱ doz	1 00@ 1 50
Chickens, apiece	75@ 1 00

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, Dec. 30, 1865.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1¾@ 1¾c ₱ lb; Plate 1¼c ₱ lb; Pipe, 1¾c ₱ lb; Galvanized 2½c ₱ lb.	
Scotch and English Pig ₱ ton	40 @—
American Pig ₱ ton	39 @40
Refined Bar, bad assortment, ₱ lb	3 @—
Refined Bar, good assortment, ₱ lb	3½@—
Boiler No. 1 to 4	4 @ 5
Plate No. 5 to 9	4½@ 6
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—
COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb	
Sheathing ₱ lb	32 @34
Sheathing, Old	20 @30
Sheathing, Yellow	30 @—
Sheathing, Old Yellow	12 @13
Bolts	13 @16
Composition Nails	30 @32
TIN PLATES.—Duty: 2½c ₱ lb.	
Plates, Charcoal, 1X ₱ box	14 @15
Plates, I C Charcoal	12 @13
Roofing Plates	11 @ 12
Banca Tin Slabs, ₱ lb	41 @42½
STEEL.—English Cast Steel, ₱ lb	12½@16
QUICKSILVER.—Per lb	— @65
For export	55 @—
ZINC.—Sheets ₱ lb	9½@10
LEAD.—Pig ₱ lb	7 @ 8
Sheet	10 @12
	10 @12
	9½@10
California, ₱ lb	20 @23

VOLUME TWELFTH.

With our present issue we commence a new year, and the twelfth semi-annual volume of the MINING AND SCIENTIFIC PRESS. We have abundant evidence that no class journal has ever been established which, in so short a time, has become so highly appreciated by those for whom its publication has been especially designed, or by the thinking and intelligent portion of the community generally. We may be pardoned for referring, with some degree of pride, to what the present proprietors have done, in the short space of two years, in building up this paper; and we confidently point to the past as an earnest of what our future shall be.

We shall continue, as heretofore, to spare no labor or expense to keep up and add to the well-earned reputation which the paper now enjoys, and shall exert our utmost endeavor and means to render it still more useful and acceptable to the miner, the mechanic, and the general reader. We make no apology and feel no delicacy in asking and urging upon the friends of the paper, everywhere, to aid us in extending its circulation, or in calling upon them to assist us in filling our columns with facts and information which shall be of value to our readers in the several departments of practical knowledge to which the paper is devoted. We return sincere thanks for past favors, and earnestly solicit a continuance of similar ones in future.

The rapid strides which are now being made in scientific mining on this coast, and the constant modification of old processes, which experience teaches us is a necessity for their economical adaptation to the anomalous condition of the mines and mining interests here, to say nothing of the new discoveries and improvements which the ingenuity and experience of man is constantly seeking to apply to mining operations, renders the existence of a journal, exclusively devoted to such specialities, an indispensable requisite to every miner and millman who desires to keep himself posted in the progress of the chemistry, metallurgy, and mechanics of mining. The wonderful discoveries and marvelous deeds which are now almost daily being achieved in the domain of science and art, render serial scientific and class publications the mainstay and dependence of every person who would keep up with the times. The achievements of the past few years in this direction are absolutely astounding; and who knows—who can imagine what a year may accomplish? Books are useful only as a record of the past—the living, active present can be found only in the pages of the newspaper and magazine.

With these facts and suggestions before us, may we not look with confidence to the active assistance of our friends? It will readily be acknowledged that the greater the income, the greater will be our facilities for collecting and disseminating information which shall be useful to our readers. We have no especial desire to make the MINING AND SCIENTIFIC PRESS a money-making institution; but we *do* own up to a desire to establish a really reputable and creditable journal in San Francisco, devoted to the mining interests of the Pacific coast, which shall be a living, lasting monument to our labors, a credit to California, and a valuable medium for the dissemination of useful information. To accomplish this, we are willing to work and to wait—we are willing to put into the enterprise every dollar, over and above actual expenses, which the liberality of friends may place at our disposal.

Hence we trust that the friends of the paper will take hold of the matter in earnest, and swell our already large list to double its present proportions. We can assure them, if they will do so, we shall more than double the value of the paper, without any increase in its price. Tendering our readers the compliments of the season, we bid you, one and all, a Happy New Year.

SINGULAR EFFECTS OF COAL OIL.—Under this heading the Virginia *Enterprise* recently chronicled a circumstance where a man in that city, in pouring a canful of coal oil from one can to another, and during the operation having occasion to regulate the stream by placing his thumb over a portion of the hole in the can from which he was pouring, found, on removing his thumb, that it was frozen stiff. The editor regards this as a very singular circumstance to be produced by oil, adding: "Had the fluid been ether there would have been nothing so strange about it, but kerosene is certainly not sufficiently volatile to have produced, by evaporation, so great a degree of cold in so short a time. It appears to us that here is a nut for some savans to crack. The freezing did not occur in the open air, but in a room comfortably warmed."

Our cotemporary is certainly mistaken in his conclusions. The freezing was most undoubtedly the result of a rapid evaporation of the more volatile portion of the oil. The heat of the room was more favorable for the result than a cold one would have been. The oil, very likely, was a very poor quality, containing an unusually large proportion of the most volatile substance that always accompanies in a greater or less quantity, all coal oil. The change of this liquid from a liquid to a gaseous state is so rapid that *ice* is often formed at the mouths of flowing wells, in the hottest summer weather. We are not at all surprised at such a result, as above described, under the circumstances indicated.

A QUARRY of fire-proof stone has been found in the Truckee mining district. Sixty tons have been taken out and sold to Webber, at Ætna District, Humboldt, with which he is going to build a furnace for the purpose of roasting ore.

SUGAR MACHINERY.—Mr. James Macken, coppersmith, 226 Fremont street, is now engaged in manufacturing a large copper sugar evaporating pan, for a sugar plantation at Tepec, near Mazatlan, Mexico. He is also at work upon a worm for the new sugar refining company, on Brannan street, and a similar instrument for a liquor distillery.

THE amount disbursed on this coast during the past nine months, ending September 30th, exceeded $12,500,000, and the income of the Government for the same period, from all sources, amounted to $8,000,000.

THE MINER'S CONVENTION.

The miners throughout the State will be pleased to learn that the directors of the California Steam Navigation Company, and the San Jose Railroad Company, will carry the representatives from the mining districts to the Miners' Convention at Sacramento, for half fare each way. To secure the benefit of this reduction in fares, those applying for it must show that they have been elected or appointed to represent some mining district at the Convention. We presume that the other railroad companies in the State will extend the same courtesies that have been volunteered by the San Jose Company.

As the Convention will meet on the 17th instant, it is necessary that districts desiring to be represented should elect or select their representatives as soon as possible. From present appearances, this Miners' Convention will be one of the most important events that has happened in the State, and no mining district should be unrepresented at its meeting. Every paper, we believe, throughout the State, has published the call, and nearly or quite every journal representing mining interests, have accompanied the publication with remarks, more or less extended, urging the importance of holding such a Convention. In order to secure a full attendance, it will be necessary that some local action should be taken in each separate mining locality. It would be well for each mining township or, when more convenient, for each separate mining camp to call a meeting of those interested, and see that a reasonable number of practical miners will pledge themselves to be present. Although the Convention will not require of its members regular credentials, showing that they have been duly elected, etc.; still it is very desirable that the miners should thus meet, in their primary capacity, whenever they can conveniently do so, and select from their number a portion, at least, of the delegation, who shall feel pledged to be present. Such a course will be more likely to secure men of the right stamp—those who will take an interest in the matter, and such as can enter understandingly into whatever subjects may come before the Convention for discussion and adjustment. There is no time to lose, and we trust that prompt and universal action will be taken to make the Convention a success, and a means for furthering the great interest of mining on the Pacific Coast.

INCORPORATION.—The certificate of incorporation of the Roannaise Mining Company has been filed in this city. The trustees are George Platt, John Dunn, and Henry D. Bacon. The latter gentleman, formerly of the banking firm of Page & Bacon, has recently purchased of Mons. Roannaise an extension of the famous Eureka ledge, Grass Valley, for which the sum of $20,000 was paid, and this, we presume, is the claim the company purpose developing. The capital stock of the company is $500,000.

ARIZONA.—We learn from the Arizona *Miner* that Acting Governor McCormick and United States District Judge Backus arrived on the 30th of November, and was received with becoming honors.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE AGE OF GOLD-BEARING ROCKS.

BY PROFESSOR ROWLANDSON, F. G. S. L.

NO. IX.

[CONTINUED FROM PAGE 402, VOL. XI.]

SIR RODERICK MURCHISON'S VIEWS — HONOR AWARDED WHERE HONOR IS DUE.

Before quoting the views expressed by this world-renowned and justly celebrated geologist, I take the opportunity of publicly expressing my grateful thanks for the deep obligation which I personally feel towards Sir Roderick Murchison, for the great amount of labor undergone, and ability displayed by him in drawing up his "Silurian System;" for, although I had entered upon the inquiry of the age of gold-bearing rocks somewhat simultaneously with the commencement of Sir Roderick's laborers in Siluria, my researches on this question were commenced from a starting point different from that taken by the distinguished geologist alluded to—mine was taken chiefly from a chemico-metallurgic basis—Sir Roderick's from palæontological and stratagraphic evidence. It is only due to Sir Roderick to state, that up to the period when he published the views contained in the following quotations, all the evidence previously gathered tended not only to show the soundness of his generalization, as based on the facts which had been up to that time positively ascertained in regard to the palæontology of gold regions, but also from their persistency, as far as was then known, necessarily led to a belief, amounting to conviction, that the views originally propounded by Sir Roderick would hold good the world over. In regard to the latter point, I think Sir Roderick will find it necessary, from the evidence supplied by California, to modify his theory to some extent, as to the Age of Gold Bearing Rocks, especially those lying adjacent to this part of the Pacific coast, and possibly some other parts of the world to which attention will be drawn hereafter.

In respectfully drawing the attention of geologists, generally, and that of Sir Roderick Murchison, in particular, to the fact that gold bearing quartz lodes are, on tolerably good evidence, found to exist over a large extent of country, in this and adjoining States, amidst rocks of secondary, and possibly of tertiary age, I feel certain that however much such a view may be in opposition to a very frequently and strongly expressed theory of Sir Roderick, no one more readily than himself will cheerfully admit the soundness of any new view, when reasonably supported, however much that may differ from his own, as previously expressed; and further, that he will most willingly lend all the aid which his position and just influence enables him to so extensively exercise in order to ascertain the true theory of this interesting subject, to the end that it may, if possible, be turned to economic account.

The condition of geology at the time when Sir Roderick Murchison published his "Silurian System," since which nearly a generation has been called into existence and passed away, was something like that of chemistry, as applied to agriculture, etc., when Liebig, only a very few years later, reduced chaotic and dispersed masses of valuable matter and experiments into system. The world is indebted to Sir Rodcrick Murchison for like valuable assistance in regard to geology, and it would be difficult to imagine or describe the debt of gratitude that is due to that gentleman from the present as well as by future generations. Individually, I again tender to Sir Roderick my acknowledgments of the personal advantagee which I have derived in studying geology from an early perusal of his Silurian System. As brevity is said to be the soul of wit, I hope that in thus curtly according my thanks to him a like brevity will be accepted as the essence of sincerity.

SIR RODERICK MURCHISON'S VIEWS ON GOLD-BEARING ROCKS.

Sir Roderick states, at page 474 of his third edition of Siluria:

"Let us first reflect upon the general fact, that, whilst all the stratified formations are composed either of crystalline and paleozoic rocks, or of secondary and tertiary deposits, gold has never been found in any appreciable quantity in either of the two last-mentioned classes of strata. The vast areas, therefore, which are covered by all such younger formations are excluded from the application of our reasoning; and every one who lives in tracts the subsoil of which consists of such rocks, may at once be assured, that he can never profitably extract gold from them.

Having laid down this generalization, which affirms that by far the largest portion of land on the face of the globe never contains gold, we proceed to consider the nature and limits of the gold-bearing rocks, and then indicate how the chief wealth is derived from superficial auriferous drifted materials or gravel.

Appealing to the structure of the different countries which at former periods have afforded or still afford any notable amount of gold, we find in all a general agreement. Whether, referring to the ancient history, we cast our eyes to the countries watered by the Pactolus of Ovid, to the Phrygia and Thrace of the Greeks, to the Alps* and golden T gns of the Romans to the Bohemia of the Middle Ages, to tracts in Britain which were worked in old times, and have either been long abandoned or are now scarcely at all productive, or to to those chains in America and Australia which, previously unsearched, have, in our times, proved so rich—we invariably find the same constants in nature. In all these lands, gold has been imparted abundantly to one class only of those ancient rocks whose order and succession we have traced, or to the associated eruptive rocks. The most usual, original position of the metal is in quartzose veinstones that traverse altered Silurian slates (chiefly Lower Silurian), frequently near their junction with eruptive rocks. Sometimes, however, it is partially diffused through the body of rocks of igneous origin."

"Seeing, on the one hand, that the oldest rock, and, on the other, the medial and youngest deposits never contain gold, and that yet (as will be shown) the metal is of recent accumulation *en masse*, it might seem to follow that there existed in those original deposits which have since become largely auriferous, the elements out of which gold was subsequently brought together in rich veinstones. It is indeed a fact, as will hereafter be shown, that there are fine-grained old schistose sediments in which gold is so impalpably disseminated, that it is difficult to imagine how this diffusion could have occurred if the original menstruum had not contained the elements of the ore. In that diffused state the gold may have remained long after the consolidation of the sediment, until, in ages long posterior, it was run together into metallic veinstones by metamorphic action, or segregated into the lumps and filaments in which it now occurs. But, however we may account for them, the facts are those which I have for many years exposed—viz., that a certain geological zone only in the crust of the globe has been rendered richly auriferous†.

* In truth, as above expressed, every old country of Europe, where the rocks were once auriferous, has long ceased to yield any valuable amount of gold. In reference to the Alps, I am indebted to my learned friend Mr. J. W. Cowell for pointing out to me the following passage in Strabo (Book iv. ch. 6, sect. 12), by which it appears that even Imperial Rome was at one time inundated with a glut of gold from her Northern mountains:—"Polybius says that in his time the gold mines were so rich about [north of?] Aquileia, but especially in the country of the Taurisci Norici, that if you dug but two feet below the surface you found gold, and that the diggings (generally) were not deeper than 15 feet; that in some instances the gold was found pure, in lumps of the size of a bean or a lupin, and which lost only one-eighth in smelting, in others it required more smelting, but was very profitable. Italians aiding the barbarians in the working for two months, gold became forthwith one-third cheaper over the whole of Italy; and the Taurisci discovering this, drove the associate Italians away and monopolized it themselves. At present all gold mines belong to the Romans."

† When preparing this work for press, I received a letter from Mr. Lieber, the State Geologist of South Carolina, which, being explained by a second letter from that gentleman, in reply to one which I addressed to him, contains a little table which clearly expresses his views as derived from his experience in South Carolina and the Brazils. Tracing out the peculiar features of the "itacolumite" and its associated rocks of "itaberite" and "specular iron schist," and a compound of talc and magnetic iron, which he terms "catawberite," Mr. Lieber affirms, that these rocks, together with clay and talcose slates, are chiefly auriferous, and that none of the rocks above them ever bear gold, whilst the mica slates beneath are more less productive of the ore. He consequently classifies the whole in ascending order, as Sub-auriferous, Auriferous, and Post-auriferous—a mineral classification which is in accordance with the data I have long endeavored to establish by geological and palæontological proofs.

To be Resumed.—The line of steamers between New Orleans and San Francisco, suspended by the Rebellion, is to be again in operation. On the 1st of January, the Pacific Mail Steamship Company is to place a steamer on the line from New Orleans, via Havana, to Aspinwall, connecting at the latter place with the steamers to and from San Francisco.

Some of the principal New York hotels talk of raising the price of board to $6 per day. There are families in the Fifth avenue who give $500 or $600 a week for their mere lodging and boarding privilege, while their "extras" will reach $300 or $400 more.

[Written for the Mining and Scientific Press.]

"Gold Bearing Sulphurets and their Reduction."

REPLY TO "A STUDENT OF METALLUGICAL CHEMISTRY."

Messrs. Editors:—I notice in your issue of the 23d ultimo, a communication signed "A Student of Metallurgical Chemistry," in which the motives of my contribution to your journal, of December 9th, are unjustifiably attacked, and the positions assumed by me attempted to be controverted.

I would premise my reply to the author by hinting that the perusal of the gentleman's communication, without the signature, conveys evidence that it is written by a student, and certainly one not very far advanced in his studies.

My object is not concealed, nor is any attempt made at the same. It was written for the benefit of the mining community of California, who have been so often imposed upon by persons entirely ignorant of the first principles of chemistry, claiming to be competent to extract the precious metals from their ores. What has been the result? Valuable mines abandoned, miners ruined, public confidence shaken in all mining operations, and the production of the precious metals limited to about one-third of what it ought to be.

The method invented by myself for the reduction of the precious metals from the gold-bearing sulphurets was not "abandoned as impracticable." On the contrary, it is available for treating sulphurets rich in gold, especially some of those at Grass Valley, but not for those holding so small an amount as $20 per ton where labor is high.

I did not condemn the common reverberatory furnace—these are my words: "By means of this method the precious metals are "freed" when contained in hi-sulphide of iron;" neither was I ignorant that condensing chambers form an essential part of said furnace; alluding to the mechanical loss of gold, I said, "it is loss unless some means be employed for its collection." In copying the manuscript, I inadvertedly omitted the following to complete the paragraph: "This method is too slow and expensive for California."

I did not disapprove of reverberatory furnaces for the purpose of chlorination. Referring to the "Chlorination Process," I spoke of *oxidation* being performed in them previous to the treatment of the mass by chlorine, etc., a process it would appear the "Student" is unacquainted with. I did not discredit the methods of the distinguished Metallurgists, Agustin, Ziervogel and Von Patera; these employ said furnaces for a purpose foreign to the subject in question. My remarks were confined solely to the treatment of gold bearing sulphurets, a subject I profess to understand.

I have nothing to retract concerning "inventions in the shape of furnaces;" two of the said inventors have admitted to me that their inventions did not answer their expectations. I am not at liberty to publish their reasons.

Regarding the peformance of "The Gold and Silver Separating Company's Furnace" (Dr. Hagan's) the "Student" seems to intimate that the crude sulphurets taken for assay did not represent the "*mass* mixed" from which the third assay was made; I will endeavor to enlighten him on this point, thanking him in the first place for correcting a typographical error. It seems the gentleman is an arithmetician, as well as a student of metallurgy. Assay *first* is the mean of five assays made on as fair a sample of the crude mineral as could be obtained; they not disagreeing more than some $30 above, nor $11 per ton less than the mean (not an uncommon occurrence). Assay *third* is likewise the mean of five assays made on the mass after treatment, obtained in a like manner to that by which the sample from which assay *first* was made; these disagreed from $45 above to $26 per ton below the mean, thus showing that a fair sample was obtained. *Sixth* assay of the tailings; this was an assay of the "refuse" after amalgamation; had I made a series of them (I considered it unnecessary to do so), "the aggregate of the extraction and that left in the tailings" might have equalled the amount as per assay third; as it is, I consider assay sixth sufficiently exact for all practical purposes; from these results, along with those of the other three experiments. I considered myself justified in arriving at this fair conclusion, omitting fractions of a per cent., viz: 55 per cent., desulphurized; 16 per cent., lost; 52 per cent. extracted and 32 per cent. left in the tailings. The treated mass was amalgamated, and the amalgam carefully separated by a "Workman" without any apparent loss. Again, the "Student" is unwilling to admit that there was any loss of gold during treatment. I maintain that there was, knowing that fair samples were obtained for assay both before and after treatment. He says: "But aside from this, add the fixed, positive data obtained by the extraction of $205.12 to that shown by assay remaining in the tailings, and we have $205.12+146.12 =$351.24. Now, subtracting this last sum from the assay of the crude sulphurets=$395. 48—351.24=44.24 per ton, or *not quite twelve per cent. loss.*" This *quasi* admitted *loss* from a 55 per cent. desulphurization, or rather say what is warranted by the "Student's" arithmetic, 11.19 per cent., added to 9.15 per cent., corresponding to the complement (45) of 100 per cent., would make 20.34 per cent. loss, provided the whole of the mineral had been desulphurized; so it would appear that the minimum mechanical loss of gold mentioned in my communication (20 per cent.) would have been experienced had the furnace been capable of doing what it is represented to do.

I cannot see the analogy between decarbonizing carbonate of lime and desulphurizing bisulphide of iron. The first is a *proto-salt*, the second a *ternary compound*. Heat decomposes the former, whereas it does not separate the whole of the sulphur from the latter. I do not advance this by way of proof to show that bisulphide of iron cannot be desulphurized in lumps, but merely to show the fallacy of the "Student's" reasoning.

But the "Student" is continually harping on the "effectual method," and naively says: "This method is mainly commended to our confidence, from the circumstance of his being requested to examine the performance of this furnace (using his own words) in my professional capacity." Verily, this is arriving at a conclusion with a vengeance.

Experiments were made by me years ago on sulphurets in lumps, both with steam and without it, for the purpose of desulphurizing them. I always obtained a negative result. On the contrary, I have experimented on "tolerably fine crushed" sulphurets in an arrangement similar to Mr. White's, on the same principle, and obtained desulphurization of the mineral, with the exception of some milliemes of sulphur that was found associated with iron and oxygen; this small portion was not inimical to the extraction of the precious metals from the oxidized mineral by amalgamation.

I am aware that Mr. White's furnace was exhibited to the public at Newark, New Jersey, about eighteen months ago. Several chemists and persons engaged in the business of testing ores witnessed its performance. Some of them gave certificates regarding its merits. One "student" was among the number.

Any competent investigator will find no difficulty in performing experiments to satisfy himself that what I have stated regarding the two furnaces (Dr. Hagan's and Mr. White's) is true. Certainly no candid person will deny that the objections urged by the "student" against the common reverberatory furnaces are overcome in Mr. White's, viz:—"the expense of building and keeping them in repair, the trouble and cost of working the ore properly, and the constant dread of careless and indifferent workmen, upon whom the successful working of the ore chiefly depends."

The cost of Mr. W.'s is less in proportion than the common furnaces, considering the amount of work it is capable of performing. The attendance of one workman is only required to keep up the requisite degree of heat, and feed the hopper with the ground mineral, which discharges itself at the other end, the wear and tear being trifling, while the coil of pipe in the chimney, from which jets of cold water are ejected, acts the part of a condensing chamber, thus securing a compact apparatus as well as a cheap method.

There is an old adage—"The greatest thief always calls thief first." So the "Student's" communication, accusing me of interested motives, will readily convey conviction to the mind of the most obtuse reader, that his object is to holster up a process that had sunk into obscurity, and is now attempted to be revived under a new patent.

The "Student" appears not to confine his glowing intellect to the study of metallurgy only; but assumes to occupy the chair of a modern Chesterfield, and read me lessons upon taste and propriety; yet as I have already lived the greater part of a long life, I would suggest to him that his labors in this behalf are not appreciated. I would also suggest to him that in the scientific world, at least, the names of individuals being given is, to some extent, a guarantee of good faith; and if the "Student" has been more than three months in this city, and is of sufficient age to have experience in the matters in controversy to give weight to his opinions, it might be well for him to shake off his cloak of modesty and let your readers know to whom they are indebted for

the refulgent light he has thrown upon the subject.

I have followed my profession in this city for the last nine years, and must ask the "Student" to forgive me for supposing that my name to my suggestions will not be without its weight.

I assure you, Messrs. Editors, that I am not *paid* for commending Mr. White's furnace, nor for condemning Dr. Hagan's; being actuated solely with a desire to have introduced an effectual and cheap method for reducing the gold bearing sulphurets of California.

In future I will not answer any more anonymous communications on the subject; but may at some other time devise means whereby the merits of the one and the demerits of the other furnace may be established to the satisfaction of the mining community of California.

JOHN SCOTT,
Metallurgical Chemist.

MECHANICAL AND AGRICULTURAL COLLEGE FOR THE STATE OF NEVADA.—On Wednesday of last week the five Commissioners appointed by the Board of Regents of the above-named College, held a meeting in Washoe City, Nev., and perfected their organization by the election of a presiding officer and a Secretary. The law contemplates that this school shall be established and maintained by the means of voluntary contributions from the citizens of the State of Nevada.

EARTHQUAKES.—The Mendocino *Herald* says that there was a heavy shock of an earthquake felt along Dry Creek, in the lower portion of Mendocino county, on the 15th ult. It occurred about nine o'clock in the evening; there were nine distinct shocks felt—three of them quite heavy.

The inhabitants of Payette Valley, Boise county, Idaho, were recently startled at an early hour in the morning by the shock of an earthquake, which was sufficiently heavy to cause the cattle and horses to tremble, and run about frantically with fear. Animals appear to be peculiarly susceptible to fear from earthquake shocks. We see frequent mention made of the fact on this coast, and have also heard descriptions thereof from eye-witnesses. A more careful noting of the effects of such phenomena in animals would be interesting.

NEW VOLUMES.—The Marysville *Appeal* has entered upon its thirteenth volume, as its editor says, "with financial prospects more flattering than ever." We congratulate our cotemporary on the success to which it is most certainly entitled.

The Monterey *Gazette* has announced its third volume. The editor says it is doing as well as could be expected—in Monterey county; and has demonstrated the fact that a paper *can* be published on starvation prices. We regret that our cotemporary is obliged to put forth so unsatisfactory a record, and trust the past will prove no index for the future.

The Territorial *Enterprise* announces the commencement of its eighth volume on the 19th ult. We well recollect when that paper was started, and have enjoyed the pleasure of constantly perusing its columns, and witnessing its gradual growth up to the present time. The only time we ever visited the office was when it was printed in a blacksmith shop—and a poor one at that—in Carson. Col. Williams was then its presiding genius. "Commencing its existence in an almost unpeopled waste, the *Enterprise* has been borne along on the advancing tide of improvement from Genoa to Carson, from Carson to Virginia," until it is now one of the largest and most enterprising dailies on the Pacific coast. May it long live and flourish! The first number of the new volume contains some two columns of interesting extracts from its early issues, showing the early progress of the Territory, and developing the stages of the mineral discoveries there from 1858 to the present time.

FROM THE OFFICIAL REPORTS

Of the Fifth Industrial Exhibition

Of the Mechanics' Institute, San Francisco, 1865.

[Now in Press—Mining and Scientific Press Book and Job Office.]

[*Continued from Page 405, Vol. XI.*]

ON QUARTZ AND MINING MACHINERY.

Committee:

J. A. HOBART. JOHN ROACH. WM. H. SCOVILE.

Varney's Pan.—This pan has a great and wide-spread celebrity. All the points of superiority claimed for it could not be embodied in a brief report by the committee. Having seen it in operation at the Exhibition, the committee recommend it as a valuable pan, and award it a silver medal.

Wheeler & Randall's Pan.—This pan is of the latest model. In the small pan on exhibition (95) ninety-five pounds of very refractory rock, of bean size, was reduced to a fine pulp in (55) fifty-five minutes. The working of the pan gave satisfaction, and the committee deem it deserving of a silver medal.

Baur' Pan.—This machine combines, as claimed, a grinder, amalgamator, and separator. The pan is shallow, with a convex top rising to the center, at which point the rejected material is discharged into a sluice-box on the outside. The material to be treated is fed by a hopper on the side; where a stream of water carries it down. A continuous flow is kept up, if desired, and when the pulp, or other matter, is sufficiently ground, it is floated off, while the metal or heavy particles are allowed to be kept in longer contact with the quicksilver. The charging of this pan is continuos, and may be carried on until the amalgam is sufficiently strong, thus avoiding repeated charging and cleaning. The committee award it a silver medal.

Concentrator.—To J. Hendy, who exhibits a Prater Concentrator, the committee award a certificate of merit.

Concentrator.—By A. Hanter, who exhibits a Concentrator and Amalgamator, which has been working to the satisfaction of the committee, who award him a silver medal.

Crusher, by Henry Pearce, who, towards the close of the Fair, entered it for exhibition. The short time this machine was on exhibition, and the rules of the Fair, excluded it from taking a premium. The committee, thinking favorably of it, recommend an award of a certificate of merit.

Soap Stone Machine, by John Dougherty.—This was a rough contrivance, showing much ingenuity, the saw working upwards, thereby cleaning itself from the dust it makes, and cutting the stone remarkably fast. The committee deem it worthy of a certificate of merit.

In concluding their report, the committee would state that, desiring to be just to all parties exhibiting, they have listened attentively to explanations from the proprietors of Reducers and Amalgamators combined. The committee regret, however, that the Fair has not afforded facilities for a practical testing of the superiority of the machines offered for competition, and they, therefore, feel it their duty to withhold a first or special premium from either of the exhibitors of this class.

ON CORDAGE.

The only cordage manufactory on this coast is the San Francisco Cordage Manufacturing Co., Potrero, Tunns & Co., agents. The samples exhibited (some seventeen in number) were an assortment of the different kinds made by this company for sale, comprising grades of every description, ranging from the lightest hay-rope to the heaviest hawsers. The cordage of this company is superior in some qualities to the best imported, and is steadily driving out all competitors from this market. The company commenced business in 1856, cordage being one of the pioneer manufactures of California. Since that time the company has steadily increased the quantity of its manufactures, constantly adopting all improvements in cordage machinery as they became known, until now the works are equal in extent to any in the United States. This company possesses two important advantages over Eastern manufacturers for the market, *i. e.*, a closer proximity to the sources of supply of the raw material, and the advantage of manufacturing it into such sizes of cordage as the market may at that time require.

The annual consumption of cordage of all kinds in this market is about 1,300 tons, seven-eighths of which is made at the works at the Potrero, where 1,200 tons of hemp are consumed yearly. The company, with their present running machinery, can manufacture 2,000 tons of hemp per annum, and have additional machinery on hand for contingencies, and steam-power to run it. During the past year the manufacturing capacity of the works has been largely increased, a new engine and boiler of 150-horse power being substituted in place of the one formerly used of half that power. The walk has been extended to 1,500 feet in length—the largest in the United States. Single lengths of rope, 1,000 feet long, have been made, and the company can manufacture, with present facilities, 1,200 feet in length, and, with but little additional expense, make them still longer. A bawser, fourteen inches in circumference, has been made at the works, which are competent to make others up to twenty inches in circumference, if required. Fifty men are constantly employed at these works, about one-half the number being Chinamen, who are engaged in light work, such as in the Atlantic States is done by boys and girls. No substitute for Manilla hemp is grown in the State, although it is reported that a wild vine, which grows luxuriantly near Santa Cruz, furnishes a staple strong and fine like silk, the fibre being very long.

For superior quality of cordage, exhibited by the San Francisco Cordage Company, the Committee award a silver medal.

ON PAPER, BOOK-BINDING, PRINTING, ETC.

Committee:

FRANK EASTMAN, A. J. CORTES, WILLIAM ALLEN.

Report the following as the result of their labors:—The display in this department was not so extensive as the committee wished, but was very interesting, as showing the ability of manufacturers to produce within this State everything within the line of paper (excepting writing or sized paper,) that is needed on the Pacific coast. The importance of paper manufacturing to this State alone can be understood when it is stated that the present consumption of paper, for all purposes, in California, equals half a million of dollars per annum. Although struggling under many drawbacks, such as increased cost of imported material, transportation and labor, our manufactures have already driven some kinds of imported paper from the market, thus giving employment to many and retaining money in the State.

Paper.—To S. P. Taylor, proprietor of the Pioneer Paper Mills, for exhibition of largest assortment of different kinds of printing and wrapping paper, and straw boards of excellent quality—awarded a special premium of a silver medal.

Paper.—To the San Lorenzo Paper Mills, Wm. P. Harrison, Agent, for exhibition of same articles, equal in quality, but not of so many varieties, a special premium diploma.

Book-Binding.—To George B. Hitchcock, for exhibition of a case of blank books of San Francisco manufacture, they being excellent in quality, style of binding and ruling—awarded a silver medal.

This report was unanimous, with the exception of that portion relating to book-binding, which was signed by Mr. Eastman, but dissented from by the other members of the committee on the ground that the books "were not bound expressly for exhibition." These members of the committee, therefore, did not consider the books a fit subject for a prize or for essential merit, but regard them "simply as a fair sample of a style of binding, ruling and finishing, but not entitled to a special award or premium.

Newspaper Printing, by Dewey & Co., San Francisco.—For specimens of newspaper printing—bound volumes of the "Mining and Scientific Press," awarded a diploma.

ON WOOLEN MANUFACTURES.

The manufacture of woolen goods is one of the large mechanical interests of California. Removed so far from a manufacturing market, for many years woolen goods, extensively worn by all classes of population, brought high prices, and contributed largely to the flow of precious metal that yearly left the country to pay for imports. By a strange anomaly, California, while importing woolen goods at high prices, at the same time exported large quantities of excellent wool suitable for the needed manufactures. Between the two the wool-growing interest was depressed, and, as far as woolen goods were concerned, the country drained of money.

The opening for the manufacturing of woolen goods was, in 1858, deemed profitable enough to counter-balance the high rates of interest that then prevailed, and the Pioneer Woolen Mills Company was at that time formed, and during the following year introduced its manufactures (Blankets) in competition with imported goods with a favorable degree of success. In 1859 another association, for the manufacture of woolen goods, was formed, under the style and name of the Mission Woolen Mills Company, which commenced operations the next year.

In the present Fair the latter company did not exhibit their manufactures. The display of their products in the Fair of the preceding year was both interesting and valuable. As one of the great manufacturing companies of the State, a few facts as to the extent of manufacture and capacity of this company may be appropriate: The capital stock of the company is $500,000; the works last year consumed over 1,200,000 pounds of fine wool, which was manufactured into 32,000 pairs of blankets, nearly 500,000 yards of flannels, and over 100,000 yards of cloths and cloakings. The present machinery includes 11 sets of cards, 3,500 spindles, and 50 broad-power looms, of the best and most modern description found anywhere in the world.

At the present Fair, the Pioneer Woolen Mills Company made a very large and excellent display of goods of their manufacture, which would be considered creditable in any State. As the pioneer woolen mill of California, which at the present time possesses only two establishments of the kind, the following description may be interesting and useful:

The Pioneer Woolen Mills, which was started in 1859 by the firm of Heynemann, Peck & Co., was destroyed by fire in 1861, and was formed into a stock company, with a capital of $150,000. December 2d, 1861. The present building and out-houses occupy ten fifty-vara lots at Black Point. The machinery consists of 9 sets of cards, 14 jacks, 2,800 spindles, and 36 looms. The engine is of 200-horse power, but is only worked up at present to 90-horse power, leaving a large capacity of engine for a contemplated increase of machinery. The mills consume 1,000,000 pounds of wool per year, and will probably exceed this amount 100,000 pounds in 1865. The works employ 225 men, and manufacture all kinds of blankets, cassimeres, and flannels. The greatest portion of flannels produced, such as checked, scarlet, blue, grey, and white, being manufactured in the premises into flannel overshirts, undershirts, and drawers, which compare favorably with price of Eastern goods, and give far more satisfaction to the consumer. The company contemplate increasing their stock capital to $300,000, and orders for a large amount of machinery have been forwarded to the East. The Board consists of F. P. Solomon, President; L. Cohn and A. Block, Directors. Heynemann & Co., 311 to 317 California street, are the agents for the sale of goods.

Between the above-named companies over a million of dollars is yearly retained in the State, and employment in the manufacturing departments directly given to nearly 600 persons. So successful have the woolen mills of California been in their manufactures, that at the present time they have driven out almost all imported blankets and flannels of every description, and promise in a few years at most to do the same with the heavier and coarser qualities of woolen goods. Aside from the value of woolen goods manufactured, the establishment of these mills, by their competition and selections of wool fleeces, have, indirectly, enhanced the value of the entire wool crop of this State and Oregon, and it is not an extravagant estimate that the annual wool crop has been increased $300,000 in value to the grower.

The Pioneer Woolen Mills of San Francisco were, at the present Fair, awarded the highest prize or award made, viz., the "Institute Medal." This medal, the first of the kind ever awarded by the Mechanics' Institute, was designed for that invention, manufacture, or industrial product which should be decided to hold out promise of the greatest practical benefit to the people of California. In accordance with the decision of a Committee, of which the Governor of the State was Chairman, the medal was awarded to the Pioneer Woolen Mills of San Francisco. The following is the report:

Award of the Mechanics' Institute Gold Medal, 1865.

To the President and Executive Committee of the Mechanics' Institute:

GENTLEMEN:—Your Committee, appointed to award the *Institute Gold Medal* to that branch of industry which in their estimation promises to be of the most benefit to the State, have to that end made an examination of the various articles on exhibition, and are of the opinion that the *manufacture of woolen goods*, as represented by the productions or the *Pioneer Woolen Mills*, is entitled to the medal. It is therefore awarded to the Pioneer Woolen Mill.

F. F. LOW,
H. W. HALLECK,
H. P. COON,
J. M. ECKFELDT,
} *Committee.*

SAN FRANCISCO, September 9th, 1865.

ON CLOTHING.

Committee:

J. C. MITCHELL. JAMES SCRIMGEOUR. G. W. RAMAGE.

The Committee having made examination of the articles exhibited in this department, report:

Gent's Clothing, by I. Joseph & Co., San Francisco, who exhibit two suits of gent's clothing and cloaks, which are the best, both in cut and workmanship.—Awarded a first premium.

Children's Clothing, by C. A. Fletcher & Co., San Francisco, who exhibit two children's suits and child's cloak, of superior taste and workmanship. Awarded a second premium.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Saturday, December 30.

12 shs Ophir at 372½ per foot, b 30.
15 shs Chollar-Potosi at 180@177 per ft, b 30.
14 shs Chollar-Potosi at 175@173½ per foot.
10 shs Chollar-Potosi at 170 per foot, s 30.
15 shs Yellow Jacket at 605@530 per foot.
7 shs Yellow Jacket at 510@500 per ft, s 10.
4 shs Yellow Jacket at 525 per foot, b 3.
5 shs Yellow Jacket at 530 per foot, b 30.
1 sh Yellow Jacket at 505 per foot, s 3.
28 shs Crown Point at 540@610 per foot.
4 shs Crown Point at 540 per foot, b 30.
8 shs Crown Point at 515@510 per foot, s 30.
4 shs Crown Point at 510 per foot, s 20.
22 shs Hale & Norcross at 290 per foot, b 30.
26 shs Hale & Norcross at 280@270 per foot.
8 shs Alpha, G. H., at 240 per foot.
8 shs Alpha, G H, at 245 per foot, b 30.
1 sh Belcher at 175 per foot.
1 sh Savage at 830 per foot.
10 shs Imperial at 130 per share, s 10.
173 shs Imperial at 113@118 per share.
40 shs Imperial at 129@124 per share, b 10.
10 shs Imperial at 123 per share, s 3.
10 shs Imperial at 120 per share, s 20.
10 shs Imperial at 120 per share, s 30.
17 shs Imperial at 124 per share, b 3.
146 shs Sierra Nevada at at 10½@9¼ per sh.
10 shs Sierra Nevada at 10 per share, b 5.
105 shs Exchequer at 9½ per share.
10 shs Overman at 60 per foot, s 30.
45 shs Overman at 65@67½ per share.
30 shs Bullion at 35@37 per share, s 30.
18 shs Bullion at 40 per share, b 30.
42 shs Bullion at 38@37 per share.
15 shs Bullion at 38¼ per share, s 3.
10 shs Wide West at 8 per share.
20 shs Confidence at 40 per share.
4 shs Empire M. & M. Co. at 225 per sh, s 3
1 sh Empire M & M Co. at 230 per sh.
10 shs N B & Mission R. R. at 42 per share.
2 shs Cal S Nav Co at 59½ per cent.
2 shs Cal Steam Nav Co at 59 per cent, s 10
Amount of sales..... ...$ 78,634 00

Tuesday, January 2.

7 shs Yellow Jacket at 605@520 per foot.
2 shs Yellow Jacket at 510 per share, s 30.
3 shs Yellow Jacket at 525 per foot.
2 shs Yellow Jacket at 520 per foot, s 5.
2 shs Yellow Jacket at 520@530 per ft, s 10.
3 shs Yellow Jacket at 520@535 per ft, s 3.
1 shs Yellow Jacket at 540 per foot, s 5.
1 sh Yellow Jacket at 540 per foot, s 10.
1 sh Yellow Jacket at 540 per foot, b 3.
1 sh Yellow Jacket at 540 per foot, s 3.
1 sh Yellow Jacket at 542½ per foot, b 10.
48 shs Alpha, G. H., at 245@250 per foot.
8 shs Alpha, G. H., at 250 per foot, cash.
14 shs Hale & Norcross at 292@292 per foot.
22 shs Hale & Norcross at 297½@295 per ft.
1 shs Savage at 815@810 per foot.
1 sh Savage at 800 per foot, s 3.
2 shs Savage at 800 per foot.
1 sh Savage at 820 per foot, b 30.
4 shs Gould & Curry at 918@815 per foot.
4 shs Gould & Curry at 910 per foot.
8 shs Crown Point at 575@580 per foot, c.
4 shs Crown Point at 590 per foot, cash.
4 shs Crown Point at 590 per foot,
36 shs Ophir at 360 per foot, cash.
12 shs Ophir at 355 per foot, s 10.
60 shs Ophir at 355 per foot.
2 shs Chollar-Potosi at 155 per foot, cash.
2 shs Chollar-Potosi at 160 per foot.
6 shs Chollar-Potosi at 157½@155 per foot.
1 sh Chollar-Potosi at 154 per foot.
13 shs Overman at 60@55 per foot.
10 shs Overman at 60@55 per foot, cash.
10 shs Overman at 50 per share, s 30.
5 shs Overman at 55 per foot, b 30.
5 5hs Overman at 55 per foot, b 3.
55 shs Sierra Nevada at 9 per share.
10 shs Sierra Nevada at 9¼ por share, b 10.
85 shs Sierra Nevada at 8¾@9¼ per share.
15 shs Imperial at 124@126 per share, cash.
8 shs Imperial at 124 per share, s 3.
10 shs Imperial at 125@126 per share.
35 shs Imperial at 125½@127½ per share, c.
5 shs Imperial at 127 per share, c.
5 shs Imperial at 125¼ per share, s 5.
3 shs Confidence at 40 per share.
5 shs Bullion at 40 per share.
10 shs Bullion at 37@37½ per share.
5 shs Bullion at 35 per share
5 shs Bullion, at 35 per share, c.
10 shs Bullion at 37 per share, b 10.
15 shs Bullion at 35 per share, s 3.
27 shs Exchequer at 9¼ per share.

AFTERNOON SESSION.

4 shs Crown Point at 560 per foot.
4 shs Crown Point at 560 per foot, s 3.
4 shs Savage at 800@790 per foot.
3 shs Savage at 810@800 per foot, b 30.
1 sh Savage at 785 per foot.
1 sh Savage at 770 per foot, s 30.
12 shs Chollar-Potosi at 152½@150 per foot.
5 shs Chollar-Potosi at 150 per foot, s 15.
24 shs Ophir at 350 per foot.
2 shs Hale & Norcross at 280 per foot.
8 shs Hale & Norcross at 280@285 per ft. s3.
21 shs Imperial at 125@124 per share.
10 shs Imperial at 123 per share.
15 shs Imperial at 124@121 per share, s 3.
5 shs Impeaial at 117 per sharo, s 30.
80 shs Sierra Nevada at 8 per share.
1 sh Confidence at 32½ per share.
Amount of sales.....$118,439 00

Wednesday, January 3.

35 shs Ophir at 325@345 per foot.
12 shs Ophir at 350 per foot. b 3.
24 shs Ophir at 360 per foot, b 30.
37 shs Chollar-Potosi at 145@135 per sh, s 30.
35 shs Chollar-Potosi at 147¼@135 per foot.
8 shs Chollar-Potosi at 137@138, s 3.
20 shs Hale & Norcross at 292½@290 per ft.
4 shs Hale & Norcross at 292½@295, s 3.
4 shs Hale & Norcross at 270 per foot, s 30.
20 shs Crown Point at 580 per foot.
17 shs Yellow Jacket at 515@475 per foot.
2 shs Yellow Jacket at 500 per foot, b 4.
2 shs Yellow Jacket at 475 per foot, b 30.

Men's Clothing, by J. H. Hammond, who exhibits three suits of men's clothing. There being no competition, the Committee do not report on their merits. For a military coat of superior make and finish—Awarded a silver medal.

Cotton Wadding and Batting, by Greenberg & Co., San Francisco, who exhibit specimens of both articles, of California manufacture, equal in quality to that imported.

Rubber Clothing, by the "Rubber Clothing Co.," San Francisco, who exhibit samples of rubber clothing and cloth, and a case of fancy articles, which the Committee assumed to be of the same material. These are imported goods of excellent quality. The fancy goods exhibited a very great improvement in the variety of design, as well as quality of manufacture.—Awarded a certificate of merit.

ON GENTS' FURNISHING GOODS.

Committee:

H. B. PLATT. LEWIS LELAND.

The Committee report that, after a careful examination of the gentlemen's furnishing goods, they recommend the medal to be given to Mrs. Morris, for the best home-made shirts, collars and wristbands exhibited.

The Committee also favorably notice the excellent line of imported goods exhibited by S. W. H. Ward & Son.

ON BOOTS AND SHOES.

Committee:

G. M. NICHOLS. JAMES H. SWAIN.

Boots and Shoes, exhibited by Koenig Brothers, for general workmanship, awarded a first premium.

Ladies' Gaiters, by W. F. Burke, San Francisco, who exhibited a showcase of ladies' gaiters. Mr. Burke made a fine display of good work and fine finish, which are superior to anything of the kind imported.—Awarded a silver medal.

Boots and Shoes, by P. Kelly, San Francisco, one case California boots and shoes. The quality of material and workmanship of these boots and shoes, are unsurpassed. Awarded a silver medal.

ON CLOAKS, ETC.

Committee:

MDE. H. J. LA MARCHE. MRS. E. W. HITCHINGS.

For Cloaks, by Kerby & Byrne, San Francisco, for superior workmanship and finish, a first premium.

Cloth Basque, by Meyer & Jonasson, San Francisco, for fine quality and finish, a second premium.

Mantillas, by J. L. Ney, San Francisco.—This mantilla-work is awarded a certificate of merit.

ON FURS, HATS AND CAPS.

Committee:

J. K. WHITE. T. YOUNG. J. C. MUESSDORFFER.

The Committee report as follows:

Sable and Mink Goods, by A. Muller; also best general assortment of manufactured furs.—Awarded a first premium.

Ermine and Muskrat Goods, by I. C. Mayer & Sons.—Awarded a first premium.

Silk Plush Hats, by Van Tassel.—Awarded a first premium.

Military Caps, by Blake & Co.—Awarded honorable mention.

ON EMBROIDERY AND FANCY NEEDLEWORK.

Committee:

MRS. A. DANNENBURG. MRS. H. L. DAVIS.

The Committee have examined the various specimens of embroidery and fancy needlework exhibited at the Fair, and recommend the following as worthy of first premium:

Crochet Bed Spread, Miss Rosa Hielboon, a first premium.

Patch-Work Quilt, by Mrs. M. D. Willis, a first premium.

Silk Embroidered Bed Quilt, by Miss M. Tolle, a diploma.

Scarfs, Dresses, Shoes, etc., by Mrs. R. C. Alden, a first premium.

Crochet Tidy, by Mrs. S. Van Roon, a first premium.

Worked Chemise and Pillow Slips, by Mrs. N. G. Kittle, a first premium.

Embroidered Handkerchiefs, by Mrs. B. Velasco. The Committee, in view of the excellence of these articles, award a certificate of merit.

Mathematical Model for Cutting Dresses, by Mrs. Margaret Curtis. The Committee found this system simple and reliable, and one of great utility and assistance to those requiring an instructor in cutting ladies' and children's dresses—it being a perfect guide in dress-cutting. The Committee therefore award the article a diploma.

Regalia and Military Goods, by Daniel Norcross, San Francisco, a most superb assortment of gold and silver embroidery on regalia and military goods.—Awarded a diploma.

Skillful Embroidery, by Mrs. John Harding, late Mrs. P. E. Rogers, San Francisco, for beautiful embroidery.—Awarded a silver medal.

Chenille Work, by Mrs. Mary Gray, of beautiful design and skillful execution. Awarded a diploma.

Worsted Work, by Mrs. E. M. Cottrell, a most beautiful specimen of this kind of work.—Awarded a diploma.

SCULPTURE.

Committee:

F. A. BUTMAN, W. A. JEWETT, O. GORI,
F. ARRIOLA, V. SQUARZA.

There were but few exhibitions in this department of the late Fair, excepting the works of Mr. Mezzara.

Some half dozen images in marble (importations), placed about the fountain, which were not entered for competition, require, we presume, no particular mention. Also, one of the same in the Art Gallery, "Samuel," of Biblical history, probably copied from the plaster cast so common, and from the original idea of Benjamin West.

There were on exhibition, by Rogers of New York, and loaned by kindness of Messrs. Jones, Wool & Sutherland, a collection of beautiful statuettes, in plaster, illustrating events of soldier life in the late Rebellion. As works of art they are worth more than a passing notice, exhibiting as they do a force of character and expression, and truth to nature, that tells the story far better than the artist could have done in words. A number of them are worthy of being executed, life size in marble.

One mantel, in Vermont white marble, designed in good taste, and finely finished, was exhibited by John Daniel.

There were on exhibition several plaster busts by Mezzara, one in particular finely modeled and true to nature. Also a number of cameos, cut by the same artist, which we think could not be excelled for fine workmanship and artistic effect.

In the United States, thus far, cameo cutting has attracted but little attention, though in Europe it is held in high estimation, taking rank alongside with works in gold and silver, and dating as an art long anterior to the time of that prolific genius, cameo cutter, worker in gold, silver, and bronze, and sculptor, Benvenuto Cellini.

A colossal statue in plaster, of Abraham Lincoln, by P. Mezzara, was placed in a very bad light and position to be seen to the best advantage. In the modeling of this work the artist has had many obstacles to overcome. First, its size (ten feet in hight) presents not a few difficulties not encountered in the life size; secondly, the well-known want of anything like grace and beauty (without it was the homely beauty of an honest expression) in the outward appearance of the subject; and, lastly, the prejudice existing against clothing statuary in modern costume.

There has been much said about this last work by Mezzara, and all that we have heard has been on one side. We propose in this place briefly to tell both sides of the story—to speak of its merits as well as of its faults. The ideas of the artist engrafted in the work are truthful to the character of Mr. Lincoln and the history of his time. He is represented with the left arm extended, holding in that hand the "Emancipation Proclamation," in the act of reaching out and proclaiming freedom to the slave. The right arm falling by his side, with the half-opened hand covering and shielding with its protection a scroll representing the Constitution of his country. Under his right foot are allegorical images of Slavery and Rebellion; on the Tree of Life, by which he stands, is a representation of Union. The cast is well finished, as may be seen by the photograph taken before it was placed on exhibition in the Pavilion, which shows the statue to much better advantage than could be seen from any point of view in the place it occupied during the Fair.

The lines of the costume, and some points in the figure, are too sharp and angular, and the left arm is too long. The attitude is dramatic—this was not at all a characteristic of Mr. Lincoln—but the expression of the head and face is fine, and, we should judge, a good likeness.

It is a bold attempt to produce a colossal statue, clothed in modern costume, and some parts of the work are open to a justly severe criticism, yet we think it should not be criticised without giving to the artist the credit which he really deserves.

For Mr. Mezzara's general work we recommend a special premium. Awarded a gold medal.

ON OIL PAINTINGS.

Committee:

P. MEZZARA, T. A. PARRY, FERDINAND VASSAULT.

The Committee report as follows:

Portrait Painting, by Fortunato Arriola. Awarded a silver medal.

Landscape Painting, by F. Butman. Awarded a silver medal.

Oil Painting, by Nahl Bros. & Dickman. The best oil painting in the exhibition. Awarded a silver medal. This painting deserves especial mention for its exquisite drawing and color, and for the life-like impatience of the horse, whose superficial anatomy is delineated in a manner evincing long and careful study. The rider is a graceful-looking horseman, correctly costumed, and beautifully painted.

The Committee regret that there was no competition in the branches to which they have made the various awards.

Lithograph, by Loomis & Swift. Awarded a first premium.

Lithograph, by G. H. Baker. Awarded a second premium.

ON PHOTOGRAPHY.

Committee:

FORTUNATO ARRIOLA. P. MEZZARA. F. E. MILLS.
W. S. JEWETT.

In this department of Art you have assigned us a most difficult duty. To discriminate fairly between the merits of the different contributors in this beautiful and popular branch of Art, where the excellencies of all are so nearly equal, is no easy task. The conclusions arrived at in this Report are the result of careful comparisons, and are given with the hope that they may be charitably received, if we have erred in judgment.

The present collection of Photographs, including plain and retouched in India ink and water colors, is undoubtedly the finest ever exhibited in San Francisco, and is creditable in the highest degree to the various artists. Indeed, we think this exhibition of photographic skill could not be excelled by any display of the kind in any city. California, though young in years, is not necessarily young in Art, especially in this branch, where we have so many elements of its success in our fine, clear atmosphere, our wealth, and the refined taste of our people. Photography, as well as other branches of Art, must and will excel here, if progressing under a kind spirit of emulation and just and intelligent criticism.

Perhaps, in this connection, it will not be out of place for your committee to remark, that by intelligent criticism is not meant the sarcastic and malicious remarks too often indulged in by writers on Art. There is no intelligence or judgment manifested in criticism of that style. The artist learns nothing by it, receives no encouragement, but goes about another work as blindly as before, thinking all the time of the stigma of ridicule to attached to the result of his labor and study, when he should have been pointed out, no matter how severely, if kindly, the right direction, analyzing and reasoning out its merits and its faults. There are others who, though not sarcastic in their criticisms, condemn that which is really meritorious in a work of Art because it does not attain to their standard; and this standard being far beyond the reach of most artists, they necessarily condemn nearly everything coming under their notice.

To proceed with the duty before us, we find in the collection of Bradley & Rulofson, and Addis & Koch, the best plain photographs on exhibition, and recommend to each a first premium of equal merit, awarding them in this manner, for the reason that we found it exceedingly difficult to decide between the two best competitors.

There are also fine specimens of plain photographs in the collections of Nahl Bros. and Jacob Shew, to whom we award equally the second premium.

For the best *general* collection of life and cabinet-size photographs, retouched in India ink, we award the first premium to Bradley & Rulofson.

There are, however, single specimens of this class in some of the collections of the other exhibitors, which are not excelled in the Art Gallery; particularly several finely-worked pictures in ink, of hunting scenes in the collection of Nahl Brothers and Bradley & Rulofson—beautiful specimens of the art of landscape composition.

The second premium for largest sized photographs, retouched in India ink, we award to Jacob Shew.

CARD PHOTOGRAPHS.

There are a few specimens of cards, by Jacob Shew, equal, if not superior, to any others on exhibition, for which we would recommend a special premium.

But for the best *general collection* of standing and sitting pictures in this department, we award the first premium to Bradley & Rulofson; and for the best *general collection* of vignettes in this department, we award the first premium to Addis & Koch.

The second premium for best general collection, to Jacob Shew.

For the best photographs, worked in water colors, first premium to Nahl Bros. The superior merit of Messrs. Nahls' pictures in water colors, is their brilliancy and harmony of color, strength, delicate finish, and truth to nature.

Second premium for water-colored photographs, to Mr. Winter. The pictures by Mr. Winter show careful finish, are free and artistic in touch, and exhibit fine harmony and delicacy of color in the draperies. But, although the flesh is warm and transparent, it is wanting in truth of color, especially in the shadows.

These, we think, are some of the merits and the faults in the beautiful picture of the three young girls, which is one of the most pleasing exhibited in the Art Gallery. The grouping is natural and picturesque.

The photographs in water colors, by Addis & Koch and Bradley & Rulofson, deserve especial mention for their beauty and harmony of coloring, free and artistic handling of drapery and backgrounds. The flesh coloring is strong and vigorous, but is somewhat wanting in truth to nature. In the last named collection there are many very beautiful pictures, both large and small.

For best "Ivorytypes."—First Premium to Addis & Koch. The small pictures in this class are delicate and very pleasing. The largest ones—cabinet size, with full length figures, have very finely painted backgrounds, but the flesh coloring wants the force and brilliancy of the surroundings.

There are specimens of a new style of picture—photographs on porcelain, painted in water colors, in the collection of Nahl Bros., which are exquisitely beautiful, having all the transparency, delicacy and beauty of miniatures on ivory. For which we award the first premium.

The photographs of California landscapes, by Watkins, are too well known and appreciated to require an extended notice here. The point of sight in most of the views is chosen with rare judgment—points representing the finest combination of lines and picturesque beauty. This excellence, added to many others, place them high in the catalogue of superior productions.

For these pictures, so universally admired both at home and in Europe, we recommend the first special premium.

The photographic landscape views, in and near the city of San Francisco, by Klain, are, some of them, fine specimens of the art—clear, sharp, and well toned. Awarded a first premium.

Lawrence & Houseworth had on exhibition a large and beautiful collection of sterescopic views, of mountain, valley, lake, and river scenery in California.

RESUME.

Bradley & Rulofson—First premium for large photographs, re-touched.
" " Special premium for plain photographs.
" " First prem. for card pictures, standing and sitting.

Addis & Koch—Special premium for plain photographs.
" " First premium for ivorytypes.
" " First premium for card vignettes.

Jacob Shew—Special premium for card pictures.
" " Second premium for large photographs, re-touched.
" " Second Premium for general collection card pictures.
" " Certificate of merit for plain photographs.

Nahl Bros—First premium for water-colored photographs.
" " First premium for porcelain pictures.
" " Certificate of merit for plain photographs.

Robert Winter—Second premium for water-colored photographs.

C. E. Watkins—Special premium for mountain views.

M. Klain—Special premium for city views.

Lawrence & Houseworth—Diploma for sterescopic views.

ON MISCELLANEOUS ARTICLES.

Committee:

C. H. HARRISON, H. W. BRADLEY, P. J. O'CONNOR.

Owing to the varied character of the articles submitted to them, the committee, in the absence of owners or other persons to explain the improvements claimed, and their uses have found it difficult to judge as correctly as a more extensive knowledge of the merits of the articles would have admitted.

Lever Jacks, exhibited by Leffel & Meyers, Portland, Oregon.—These jacks are first rate for all railroad purposes, being quicker of action than either the screw or hydraulic jack in common use.

Army Printing Presses, exhibited by G. W. Edwards, San Francisco.—These presses are of Eastern manufacture, are of fine appearance, and possess many good qualities.

Job Printing Press, exhibited by A. N. Rood & Co.—Of Eastern manufacture and good appearance.

Straw Hats and Bonnets, exhibited by the Pacific Straw Works, San Francisco.—This exhibition comprised a case of straw hats and bonnets; also the machinery for making them. The machinery is ingenious and the workmanship good. Awarded a silver medal.

Self-emptying Bucket and Windlass, exhibited by J. S. Fogg, Oakland. This bucket and windlass are for well uses. The principle is ingenious and appears to work well.

Wind-Mills, exhibited by Atwood & Bodwell, San Francisco.—Awarded a diploma.

Mining Car, exhibited by C. Roberts & Co., San Francisco.—This car is of good strong manufacture, the plan of working the tail-board being new, simple and ingenious. Awarded a diploma.

Improved Soda Machine, exhibited by W. R. Frink, San Francisco.—This is an improved soda machine, the patent for which has been applied for by Mr. Frink. The main feature is the supplying the materials by means of pumps. The machine is a finished specimen of coppersmith work. Awarded a diploma.

Gas Machine, exhibited by Blake & Co., San Francisco.—This machine is of Boston manufacture. No test having been made with it, the committee were unable to judge of its merits.

Rope Covering for Hydraulic Hose, exhibited by J. L. Moulthrop, Miners' Foundry.—This is a very ingenious improvement for the protection and strengthening of mining hose, and deserves the careful attention of hydraulic miners. Awarded certificate of merit.

Duncan's Patent Steam Packing for Pistons, exhibited by Henry S. Smith, Golden State Foundry.—The construction of the piston head and rings being such that the rings are not bound or held fast by the head. The rings being cut in sections, they are allowed to move freely, readily adjusting themselves to untrue cylinders. They can be made much narrower, thereby avoiding friction; the steam forcing them out to their bearings, they require no springs or bolts, and the body of the piston not requiring to be filled with steam, but only a very small space, makes no loss of steam. They can readily be fitted to old pistons of any style.

Life Raft, exhibited by E. Hawthorne, San Francisco.—This raft is suitable for pontoons for army use, or for ferry use, or for floating stages around a ship. It is cheap, light, and easily constructed.

Cases of Stuffed Birds, exhibited by Lorquin, San Francisco.—Excellent specimens of the art, and beautifully arranged.

Eggs, Dyed and Engraved, exhibited by G. F. W. Richter.—The idea is ingenious, and the execution beautiful—the eggs being a great curiosity.

Horse Shoes, Pincers and Hammers, exhibited by Misgill & Cooper, San Francisco.—These are excellent specimens of workmanship.

Grate Bars, exhibited by Devoe, Dinsmore & Co., San Francisco.—A new style of bar, calculated to burn small coal, give a better draft, and last much longer than the old style. They are well worthy of attention.

Trunks, Valises and Carpet Bags, by James Longshore & Co., San Francisco.—The specimens exhibited were of excellent workmanship and appearance, and apparently of a very durable character. Awarded a diploma.

Plaster Ornaments, by Samuel Kellett, San Francisco.—For beauty of design and excellent finish, awarded a silver medal.

Iron Safe, by J. Weichart, San Francisco.—An excellent safe for the purpose intended. Awarded a diploma.

Gold, Silver and Copper Preparations, by J. A. Bauer, San Francisco. These consist of nitrate of silver, sulphate of copper, cloride of gold, and sodium, all prepared by the exhibitor. The nitrate of silver is used extensively in photography, about a ton of silver being used every year for that purpose, in the United States. Bauer claims a new method of obtaining sulphurets of copper, for which he has applied for a patent. Awarded a diploma.

Distilling Oils. Samples exhibited by E. Benoist, San Francisco, who has distilled lubricating and burning oils of most excellent quality. Awarded a diploma.

Combined Faucet and Measure, exhibited by E. D. Mitchell, San Francisco. This is an Eastern invention, and is a very ingenious, cleanly and economical method of measuring liquid from a barrel or tank, through the faucet at the time of drawing.

Boot-Blacking Machine. This machine, by A. E. White, is of California invention, and is said to be the first of the kind ever invented. Its construction shows considerable ingenuity, and its effects a considerable saving of time, a pair of boots being cleaned and handsomely polished by it in a half-minute. The committee awarded a certificate of merit.

Blow Pipe, by Joshua Hendy, San Francisco; two blow pipes. These blow pipes are constructed with valves, by means of which a small India Rubber bladder is filled with air, from the mouth of which, by the contractive force of the bladder, the air is thrown out of the point of the blow pipe in a continuous stream. This flow of air is also held under the controll of the operator by means of his finger, which, when pressed upon the neck of the bladder, either reduces the current or entirely cuts it off, as may be desired. Awarded a certificate of merit.

Fire Works, Church & Clark, San Francisco, who exhibited a large variety of ornamental fire works. This firm manufactures very largely of fire works, which have a first-class reputation in this market for brilliancy of colors and unfailing execution. The display made by Church & Clark on the opening night of the Fair, is said by good judges to have never been excelled, in good quality, by any display in San Francisco, or elsewhere. Awarded a diploma.

Fire Works, by Tripp & Robinson, who exhibited a fine assortment of patterns of ornamental fire-works. The display made by this firm on the closing night of the Fair was a very beautiful one. Awarded a diploma.

Shoe Lasts, by Brown & Butters, Oakland—nine shoe lasts manufactured at the Pacific Last Factory, Oakland. For excellence of model and good workmanship, awarded a certificate of merit.

Cooperage, by F. Nehrlich, San Francisco. Mr. Nehrlich exhibited a most excellent specimen of his workmanship, in the form of a mammoth cask or wine vat, capable of holding 534 gallons. Awarded a diploma.

Self-Regulating Bench Planes, by Mullear & Bender, San Francisco. This is a California invention, designed to avoid the delay and inconvenience experienced from the clogging of the plane, as ordinarily constructed. This improvement prevents clogging, and the cutting iron being firmly held, no vibration can occur, so the tool does its work neater and with less force than the instrument now in general use. Awarded a diploma.

Cedar Boards, by Macdonald Bros., San Francisco. The sawing of these boards reflects great credit upon the operators, the great accuracy of lines, and smoothness of surface being remarkable. Very large quantities of Spanish Cedar are now used in various branches of trade in California, mostly for ornamental and cabinet work, and the perfect sawing of the same is a nicety in the art. Awarded a silver medal.

Back Boards, by Macdonald Bros., San Francisco. For excellence of workmanship, awarded a diploma.

Sawed Lumber, by Joshua Hendy, San Francisco, one lot gang circular sawn lumber. This lumber was sawed by one of Hendy's gang circular saw mills, said to be the only mill that saws dimension lumber direct from the log, by one movement of the carriage. For evenness of dimensions the lumber is decidedly superior to any sawed by the ordinary circular saw. Awarded a silver medal.

Redwood Lumber, by Macpherson & Wetherbee, San Francisco, who exhibited two redwood planks, seven feet five inches wide, and twelve feet long—clear, without knot or blemish. These planks were sawed at Noyo River Mills, and are said to be the widest ever sawn. The exhibitors encountered great difficulty in getting a saw of size sufficient for the purpose. They sent an order to the agents of Spear & Jackson, in New York, for a 12-foot sash saw for the purpose. As 10-feet saws were the largest ever made by that celebrated firm, the agents on receiving the order, fearing an error, wrote back to Messrs. Macpherson & Wetherbee to that effect; when the order was repeated, followed by an order from New York to England for a steel plate to be made of the requisite size. As a specimen of the immense growth of the redwood timber which abounds on our Northern coast, the planks are very instructive. During the holding of the Fair, parties wishing to exhibit the capabilities of California for the production of timber, desired to purchase the planks to send to the Great Exhibition to be held in Paris in 1867. The owners, however, have declined to sell the same, preferring to donate them to the Agricultural Department at Washington. Awarded a silver medal.

[*To be Continued*].

60 shs Alpha, O. H., at 240@210 per foot.
4 shs Savage at 760 per foot.
1 sh Belcher at 150 per foot.
1 sh Belcher at 150 per foot, s 4.
1 sh Belcher at 150 per foot, s 30.
8 shs Gould & Curry at 880@880 per foot.
4 shs Gould & Curry at 875 per foot, s 30.
20 shs Lady Bryan at 1¼ per share.
90 shs Imperial at 115@117 per share, s 3.
56 shs Imperial at 118@117 per share.
20 shs Imperial at 115 per share, s 10.
10 shs Imperial at 113 per share, s 30.
3 shs Empire M & M Co. at 250 per share.
5 shs Empire M & M Co. at 250 per sh, s 3.
10 shs Sherman at 456@48 per foot.
10 shs Bullion at 30 per share.
5 shs Bullion at 29 per share, s 3.
5 shs Bullion at 27½ per share, b 5.
100 shs Spring Valley W W at 55 per cent
5 shs Oakland R R at 50 per cent.
$5,000 Legal Tender Notes at 67½ per cent.
$ 5,000 Legal Tender Notes at 67¾c, s 30.

AFTERNOON SESSION.

27 shs Challar-Potosi at 135 per foot.
5 shs Challar Potosi at 136 per foot, s 5.
5 shs Challar-Potosi at 136 per foot.
5 shs Challar-Potosi at 135 per foot, s 3.
3 shs Yellow Jacket at 485@475 per ft.
1 sh Yellow Jacket at 480 per foot, b 3.
2 shs Yellow Jacket at 465@460 per foot.
1 sh Yellow Jacket at 470 per foot, b 30.
3 shs Yellow Jacket at 435@470 per ft, b 3.
1 sh Yellow Jacket at 465 per foot, s 3.
2 shs Yellow Jacket at 460 per foot, s 5.
6 shs Yellow Jacket at 450 per foot, s 3.
1 sh Yellow Jacket at 435 per foot, s 30.
8 shs Crown Point at 570@560 per foot.
42 shs Crown Point at 575@560 per foot, b 30.
8 shs Crown Point at 560 per foot, s 3.
16 shs Crown Point at 555 per foot.
4 shs Crown Point at 555 per foot, s 3.
4 shs Crown Point at 560 per foot, s 5.
4 shs Crown Point at 560 per foot.
4 shs Crown Point at 550 per foot, s 30.
2 shs Hale & Norcross at 295 per foot.
20 shs Hale & Norcross at 295 per foot, b 30.
6 shs Hale & Norcross at 280 per foot.
6 shs Hale & Norcross at 275 per foot, s 30.
2 shs Hale & Norcross at 282½ per ft, s 3.
10 shs Overman at 5 per foot.
1 sh Belcher at 150 per foot, s 3.
3 shs Belcher at 155 per foot, b 30.
16 shs Gould & Curry at 880 per foot, b 30.
1 sh Savage at 750 per foot, s 3.
2 shs Savage at 75 per foot.
6 shs Empire Mill & Mining Co. at 250.
20 shs Sierra Nevada at 7½ per share.
45 shs Imperial at 108@113½ per share.
55 shs Imperial at 111@110 per share, s 3.
15 shs Imperial at 110@110 per share.
30 shs Imperial at 105@102½ per share, s 30.
10 shs Imperial at 105 per share, s 3.
3 shs Imperial at 100 per share s 30.
5 shs Imperial at 107 per share, s 5.
5 shs Imperial at 109 per share, s 3.
5 shs Imperial at 109 per share, b 3.
10 shs Imperial at 108¾ per share.
10 shs Imperial at 105 per share, s 10.
50 shs Spring Valley W Co at 55 per c, s 20
Amount of sales.....$159,687 00

Thursday, January 4.

18 shs Halo & Norcross at 280@265 per foot.
8 shs Hale & Norcross at 260 per foot, s 30.
4 shs Overman at 45@47 per share.
4 shs Alpha, C. H. at 210 per foot.
2 shs Alpha, G H, at 210 per foot, s 3.
37 shs Chollar-Potosi at 137@136 per ft,
8 shs Gould & Curry at 890 per foot,
16 shs Gould & Curry at 890 per foot, b 30.
4 shs Gould & Curry at 880 per foot, 15 d.
12 shs Gould & Curry at 815 per foot, s 30.
15 shs Yellow Jacket at 440@145 per foot.
1 sh Yellow Jacket at 439 per foot, b 30.
6 shs Yellow Jacket at 330@435 per ft, s 3.
4 shs Yellow Jacket at 425@420 per ft, s 30.
60 shs Ophir at 332½@330 per foot.
20 shs Crown Point at 560 per foot.
12 shs Crown Point at 550 per foot, s 4.
1 sh Belcher at 159 per foot.
1 sh Savage at 760 per foot.
46 shs Imperial at 109@111 per share.
20 shs Imperial at 105 per share, s 30.
20 shs Imperial at 111@109 per share, s 3.
20 shs Sierra Nevada at 7 per share, s 10.
5 shs Sierra Nevada at 8 per share.
3 shs Confidence at 27 per share
5 shs Confidence at 28 per share, b 6.
10 shs Wide West at 8 per share.
10 shs Empire M & M Co. at 200@195, s 90.
2 shs Empire M & M Co. at 240 per sh, s 30.
6 shs Exchequer at 8½ per share.
10 shs Exchequer at 7¾ per share, s 3.
5 shs Bullion at 29 per share, s 3.
25 shs Bullion at 29@31 per share.
5 shs Bullion at 30 per share, b 3.
2 shs Cal Steam Navy Co at 69 per cent, s 3.
$ 3,000 Legal Tender Notes at 69c.

AFTERNOON SESSION.

28 shs Crown Point at 545@540 per foot.
20 shs Crown Point at 540@545 per foot,
16 shs Crown Point at 445 per foot, s 4.
5 shs Yellow Jacket at 425@440 per ft, s 3.
1 shs Yellow Jacket at 435 per foot.
1 sh Yellow Jacket at 440 per foot, b 10.
1 sh Yellow Jacket at 437½ per foot, Mon.
5 shs Yellow Jacket at 440 per foot, s 10.
4 shs Yellow Jacket at 445 per foot.
2 shs Yellow Jacket at 447½ per foot.
2 shs Yellow Jacket at 445 per foot, s 3.
1 sh Yellow Jacket at 425 per foot, s 30.
2 shs Savage at 775@795 per foot.
2 shs Savage at 790@800 per foot.
8 shs Savage at 785 per foot.
1 sh Savage at 780 per foot, s 3.
2 shs Savage at 800@802½ per foot, b 30.
1 sh Savage at 775 per foot, s 30.
4 shs Alpha, G. H., at 210 per foot.
8 shs Alpha, O. H., at 210 per foot, b 30.
4 shs Alpha, G H, at 200 per foot, s 10.
10 shs Chollar-Potosi at at 139@140 per ft.
2 shs Chollar-Potosi at 132½ per foot.
5 shs Chollar-Potosi at 140 per foot, s 30.
1 shs Belcher at 160 per foot, b 30.
20 shs Lady Bryan at 1¼ per share.
15 shs Bullion at 30 per share, s 30.
20 shs Bullion at 31 per share, b 2.
10 shs Imperial at 110@113 per share.
5 shs Imperial at 113¾ per share.
10 shs Exchequer at 8 per share, b3.
5 shs Almeda R. R. at 20 per cent.
3 shs Cal. Steam Nav. Co. at 60 p ct., s 3.
2 shs Cal Steam Nav Co at 60 per cent. s 30
Amount of sales.....$162,498 00

Friday, January 5.

36 shs Ophir at 300@295 per share.
36 shs Ophir at 297@300 per foot.
10 shs Yellow Jacket at 420@430 per foot.
6 shs Yellow Jacket at 400@410 per ft, s 30.
10 shs Yellow Jacket at 430@435 per foot.
3 shs Yellow Jacket at 450 per foot. b 30.
2 shs Yellow Jacket at 430@435 per ft, s 30.
13 shs Savage at 770@760 per foot.
7 shs Savage at 760@765 per foot.
24 shs Alpha, O. H., at 200@190 per foot.
4 shs Alpha at 195 per share.
47 shs Imperial at 113@114 per share.
50 shs Imperial at 111½@110 per share.
30 shs Imperial at 107 per share, s 30.
20 shs Imperial at 100 per share, s 10.
25 shs Imperial at 110½@111 per share.
56 shs Crown Point at 580@600 per foot.
16 shs Chollar-Potosi at 145 per foot.
10 shs Bullion at 30 per share.
65 shs Sierra Nevada at 8 per share.
65 shs Overman at 47@45 per foot, s 30.
$21 6 0 Legal Tender Notes at 69½@69¾.
$5,000 U. S. 7-30 Bonds at 69¾ per cent.
10 shs Spring Valley W W Co at 55 per ct.
3 shs Cal Steam Nav Co at 60 per cent, s 30.

AFTERNOON SESSION.

1 shs Belcher at 150 per foot. b 30.
1 sh Belcher at 140 per foot, s 30.
3 shs Belcher at 150 per foot
6 shs Alpha, G. H., at 200@195 per foot.
1 sh Alpha at 205 per foot.
22 shs Chollar-Potosi at 145@148 per foot.
1 shs Gould & Curry at 900 per foot, s 3.
1 shs Savage at 760 per foot.
1 sh Yellow Jacket at 425 per foot.
1 sh Yellow Jacket at 440 per share.
30 shs Wide West at 9¼ per share.
2 shs Overman at 48 per foot.
5 shs Overman at 46½ per foot.
2 shs Ophir at 305 per foot.
1 sh Ophir at 310 per foot, b 10.
18 shs Imperial at 110 per share.
Amount of sales.....$118,629 00

Mining Summary.

CALIFORNIA.

PLUMAS COUNTY.—A correspondent of the Downieville *Messenger*, writing from Saw Pit Flat, says that the Eagle company is taking out gravel that is tinted handsomely with gold. The foreman recently took out a pan of dirt which yielded $29. The Franklin company are pushing the main tunnel back in search of another channel in the hill. Last week the company raised at the end of the tunnel, and found gravel that promises well. The Union company is busy taking out and piling gravel of prime quality,

The New York company is opening out in gravel that shows unmistakable signs of richness—pieces of gold being picked up every day.

The Monitor Company is getting handsome pay; the company made a washing, week before last, and cleaned up $3,500 from a run of three days.

The American company, on the opposite side of the hill, after battling nearly ten years with the hed rock, have raised a shaft forty feet over the back of the tunnel, and found gravel that promises to reward them for their toil, which pays from three to five dollars to the car-load. This will, no doubt, resurrect some half dozen companies that have been slumbering around the American, and brisk times are at hand.

SHASTA.—The Tehama *Observer* of the 23d ult. speaks of some rich placer mines in Shasta county, as follows:

Tipton & Burtt, of Red Bluff, sent $2,250 to San Francisco, in dust, the largest grain of which was valued at $325, and other pieces went from 50 cents to $150, The gold was brought to Red Bluff by George Burtt, of the firm of McPhee & Burtt, doing business at Dog Creek, Shasta county, some eighty miles north of this place, on the Sacramento river road to Yreka. It is represented as the richest gold mining section in the northern part of the State. One company, we are informed, are taking out $25 per day to the hand.

YUBA.—The Marysville *Appeal* of the 28th ult. learns that L. B. Clark sold, a few days ago, his mining claims at Smartsville for $115,000 in gold coin, retaining one-tenth unassessable. These claims join the celebrated blue gravel mines, and were purchased by an Eastern company. The ground is supposed to be very rich.

SIERRA.—A correspondent of the *Messenger* says that the interest taken in mining in the southern portion of the county is daily increasing. The Union company have not been running their mill for some time, although they have been busily at work and will commence to crush on Monday next. The Twenty-One Company are sinking shafts and taking out quartz, as the mill is not in running order at present. The Fac Simile ledge is considered one of the best in the vicinity. The Oak Flat company have, without doubt, an excellent claim. The ledge is now seven feet wide. They have two tunnels which are one hundred and thirty feet apart, in which the quartz is equally rich, and it must take a long time to crush the quartz between the tunnels. The Masonic company are working twenty men in their subterraneous gravel mine. There are several other mines in this vicinity which *are* paying well.

The sluices of the Erie company at Port Wine were cleaned up by some thieves on Friday night of last week. They got about $1,000.

The *Messenger* learns that Wasswick, on Thursday of last week, cleaned up twenty-two ounces for one day's work.

NEVADA.—The *Gazette* learns that mining matters are still quite lively at Summit City. The California company have made one clean-up of their mill, and although the yield of the rock was less than expected, it was sufficient to pay large profits.

Mr. Benj. Jones and others, engaged in working a placer mine on Gold Flat, have recently discovered a quartz ledge in their claims six feet wide, and very rich in sulphurets and free gold. They are able to trace it nearly 1,800 feet by surface indications. They are hard-working and deserving men.

A company is running a tunnel under Main street in Nevada. It is being strongly timbered, and the dirt is being run through sluices as it is being taken out. The ground under the street has long been known to be rich. In fact, the whole lower part of the city is built upon a rich placer mine.

The Grass Valley *Union* says that another handsome specimen was brought in from the Ophir mine on Tuesday evening last. The most experienced quartz miners in this section unite in the assertion that this is the handsomest and most valuable specimen ever taken from a ledge in that vicinity. On Wednesday about ten thousand dollars worth of rock was taken out. The Ophir mine is proving to be one of the richest mines in that proverbially rich district.

The Allison Ranch mine is paying from $100 to $1,000 per ton. It is said that the owners of this mine—probably the richest gold mine in the world—have divided fully one million of dollars, clear profits, within the past three years. Probably this sum is below the mark. The earnings for October last were $40,000; for November, $50,000. The owners, we believe, are six in number.

PLACER.—According to the Placer *Herald*, over one hundred ounces of gold was lately taken out of the Oro tunnel claim, near Forest Hill, as the week's work of four men. This tunnel was commenced in the year 1853, and this is the first good yield ever had from it.

We have a very interesting report of mining operations at Ophirville, which we shall give next week.

ALPINE.—Mr. W. D. Root, the Secretary of the Geo. Washington Co., has shown us some very fine looking rock, which he has received the past week, taken from the company's tunnel. It is thought to be from a spur, and that they will strike the main vein in a few days.

Work is progressing on the Active Co.'s mill. This company is putting up "desulphurising works" by which their refractory ores will be submitted to a new process which has worked finely on a small scale. High hopes are entertained of important results.

The Michigan Consolidated Mining Company, located near by, will also soon commence work under the impetus of New York capital.

TUOLUMNE.—On Tuesday of last week some prospectors discovered an immense vein of quartz of fine quality, on a hill near Sonora. Specimens yielded very well by mortar test. The locators will immediately have a quantity of the rock crushed, there being at least twenty tons in sight, in order to definitely ascertain what it will pay.

The Mount Vernon claim, Sugar Pine District, J. W. Mandeville & Co., owners, cleaned up week before last 218 ounces out of forty tons of rock.

Over 400 tons of quartz, according to the *Courier*, are now at the mouth of the tunnel of the Bacon mine, on Colder's ranch, ten miles from Sonora, and a large amount in addition is already in sight ready to be brought to surface as soon as mill facilities can be furnished.

The Sugar Pine district in this county is spoken of as noted for containing a large number of valuable quartz ledges, some of which have already yielded a vast amount of gold, while others are in a forward state of development. One of the most promising claims in the district is the Mount Moriah, near Uniontown, and about half a mile from the famous Excelsior.

MARIPOSA.—*Copper.*—The Mariposa *Free Press* says that reports from the Hamilton district concerning copper prospects still continue to be favorable. Several thousand pounds of the metal have been smelted during the last two weeks at the works of Henry & Co., ready for shipment. Quite a little town is springing up in the locality of these works at James' ranch, which may eventually rival Copperopolis. We shall refer more particularly next week to the copper mining interest of this county.

MARIN.—The Marin county *Journal* says that there is no doubt but that the copper mines now being worked at Bolinas, in this county, will prove of great value. From the Ewing claim large quantities of ore is now being taken for shipment. After working for some time in search of the hidden treasure, the owners finally struck a vein of twenty per cent. ore, two feet thick. The Union company are about to let a contract to run their tunnel two hundred feet farther, or until it strikes Ewing's ledge. The length of the tunnel of this company, thus far, is something more than five hundred feet. The owners of these mines are sanguine of great results, as the indications are favorable in the highest degree. We are glad to see that the stockholders have the prudence to keep the stock among their own immediate residents, and not allow speculators the chance to come among them, and by extravagance and mismanagement "freeze them out."

MENDOCINO.—Gold is found in Mendocino county, and quite a number of miners are said to be engaged in prospecting the gulches there, some of whom make as much as seven dollars per day.

ESMERALDA.

The editor of the Esmeralda *Union* has seen a sample of ore from the Mountain Queen mine at Montgomery, a quantity of which is being shipped via San Francisco to Swansea, England. This ore, per ton of 2,000 lbs, yields: silver, $1,011.95; gold, $13.02. The ore also assays four per cent. of copper. A second lot, from the same mine, is on the way, which is pronounced still richer. The Homestake mill, which has just been completed at Bodie, is now in operation, everything working beautifully. The machinery consists of twelve stamps, four of Hepburn's pans, with three separators, and is driven by a thirty-horse-power engine. The mill commenced crushing on the 27th ult. with three hundred tons of ore on hand, and a sufficient quantity coming out of the mine to keep up the supply. The ore pays on an average $80 per ton.

Mr Gallagher, who is the chief owner of the Crocket claim, has lately returned to Aurora, from San Francisco, and, as we understand, will take charge of the mine, which, though hitherto worked but little, still pays handsomely.

Mr. Markley, with others, has struck the Falkirk ledge at a depth of 140 feet on Last Chance Hill. It prospects very nicely. Work upon the same will be prosecuted vigorously.

HUMBOLDT.

The Humboldt *Register* says that "The Oreana" is one of the finest claims yet opened in the famous Arabia district. The ledge is about three feet in width, and the croppings assay as high as $111 to the ton. The ore is in a position extremely favorable for working. It will require roasting.

The brothers Black are still at work upon the Lavala, which continues to widen as they descend. It is now 15 feet wide, and they are following down the west wall, which continues smooth and well cased with clay, and gradually receding into the hill—promising at water level a very wide vein. No great proportion of metal in the ledge now, but it is expected the ore will, as is usually the case, concentrate when water level is reached. Their mill is on the ground, and will be erected as soon as the mineral vein will justify.

NEVADA.

The *Enterprise* says the Montana fever is quite prevalent in that city, and quite a rush thither from Washoe is predicted for next spring. Letters from that quarter speak most encouragingly of the mines there—both placer and quartz. There is a probability of work being resumed on many of the mines in the vicinity of Silver City that have lain idle for from one to three years. In most of the veins thereabouts gold is the predominant paying metal. At the time these leads were first prospected, the charge for crushing was from $30 to $50 per ton. This was more than the whole yield of the ores. Of course miners could not afford to pay such prices, so they stopped work. Now, however, crushing is being done for ten dollars, and these old and abandoned claims are likly to become valuable. Many of them yield ores that will pay from $18 to $25 per ton, and a few, rock that would undoubtedly pay, by judicious assorting, as high as $35 or $40. Among the claims named as having resumed work are the Kossuth and the Genessee companies.

A FRUIT PRESERVING HOUSE, with a capacity of 25,000 bushels, is to be erected at Buffalo, at a cost of $100,000. These houses have been thoroughly tested in Cleveland, Cincinnati, Indianapolis, New York and Greensboro, while large ones have just been finished in Pittsburg, Detroit, Chicago and St. Louis. A full description of one of these "preserving houses" and the philosophy of the process, was given in our issue of March 18th, 1865. Who will be the first to start a similar establishment in this city?

CONGRESSIONAL COMMITTEE ON MINES.—The Speaker of the National House of Representatives, in his appointment of the new Committee on Mines and Mining, has given representation to the gold mines of California and Oregon, silver mines of Nevada, lead mines of Iowa and Wisconsin, copper mines of Michigan, iron and coal mines of Pennsylvania, and Iron Mountain mines of Missouri. The Committee consists of nine members, as follows, Mr. Higby being Chairman: Higby, California; Ashley, Nevada; Cobb, Wisconsin; Strouse, Pennsylvania; Driggs, Michigan; Ashley, Ohio; Henderson, Oregon; Allison, Iowa; and Noell of Missouri.

GOOD FOR THE FARMERS.—The Calaveras *Chronicle* says: The early and abundant rains this season and the pleasant weather that followed, have enabled the farmers to make rapid progress in plowing and planting their fields. Present indications are favorable to a good crop.

QUINCY HALL is one of the oldest, largest and most respectable clothing establishments in San Francisco. Messrs. Davies & Schafer earn their success by enterprise.

THE GREAT LAKES TO BE CONNECTED WITH THE MISSISSIPPI.—At the last meeting of the Polytechnic Associatioo, Mr. Carter of Chicago, gave some particulars in relation to the work of lowering the bed of the Illinois and Michigan canal, for the purpose of draining the Chicago river into the Illinois. This canal is 100 miles in length, with a width of seventy feet at the surface, and thirty at the bottom. It connects the Chicago river, at a point near the city, with the Illinois river at Peru. It passes over a summit of about seven feet elevation, the water being raised for this level by a steam engine. The first design of the engineers was to sink the canal deep enough to avoid this summit level; but, to save expense in construction, the Commissioners finally decided on the present plan. The citizens of Chicago have, for some time, been desirous to have the canal sunk through this level, in order to drain the waters of the Chicago river through the canal into the Illinois, instead of allowing them to flow, as at present, into the lake, where they foul the water of the harbor by the sewerage of the city. It has finally been decided to do this work at the expense of the city, and on the close of navigation this year, numerous gangs of workmen are to commence the task so as to complete it with the least possible delay. Mr. Carter says that the length of the summit level is eighteen miles.

THE "DIAMOND" FEVER is raging furiously in Boise and Owyhee, according to last accounts in the *Avalanche* and *Statesman*. The editor of the former says he is the owner of *only* two diamond claims, each 300 feet square, and therefore keeps cool! Those parties who have successfully prospected for those brilliants think they have the "dead thing" on diamonds. Those crystals stand the severest tests, they say. They are small, from the size of a grain of sand to that of a small grain of wheat, but they are found all over a tract of country forty miles square—between Boise city and Owyhee. It is stated that the prospectors, from a want of mineralogical information, and in their excited eagerness, are packing home any amount of quartz, in the belief of their being diamonds. Yet, so far from the diamond excitement being a burlesque, says the *Avalanche*, it is a subject that commands the careful attention of the leading and best informed citizens.

BIG WAGONS.—We noticed some time last spring the construction and use of an immense wagon in Virginia City, Washoe, in which loads were hauled weighing as high as ten tons. This wagon was constructed for Mr. Carpenter, who after a thorough trial of the same for some eight months, and finding it a success, ordered the construction of another of twelve tons burthen. This new mammoth vehicle has been completed, and weighs 7,050 pounds.

ROAD LOCOMOTIVES.—A gigantic steam road locomotive is now at work in county Down, England, carrying freight from the Newcastle quarries. The machine is very large and heavy, calculated to carry *eighty tons* with ease. The practicability of road locomotives appears to have been fully proven, within the past three or four years; and there can scarce be a doubt apprehended that the great experiment about to be tried on the plains, westward from Missouri, will prove a success.

INCREASE OF PATENTS.—The number of patents issued for the year 1865 shows the aggregate to be 6,600, an increase of 1,600 over any previous year. It was supposed that there would be issued from the Patent Office for the week ending January 2d, 1866, 129 new patents. There was issued for the week ending with the 20th of June last, 160 patents—the largest number, we believe, ever issued from the office in any one week. The average weekly issue of patents for 1865 was 117; for 1860 it was only 98. The full official returns may slightly vary the above figures; as the closing work of the year is in part only estimated.

OIL IN COLORDO.—The Denver *News* chronicles the finding of large quantities of oil in that State. It says: We have every reason to believe from the indications and discoveries made, that portions of our Territory are as rich in petroleum as the celebrated Pithole District in Pennsylvania. Near Canyon City a well is now yielding twenty-four barrels per day of the best quality of "green oil." This well is only seventy-five feet in depth, and is the only well that has been sunk for oil in the Territory. Some others are going down, but none have as yet reached any considerable depth.

Mechanical.

IMPORTANT EXPERIMENTS.

Mr. Norman Wiard, of New York, has recently been making some interesting and important experiments in connection with steam boilers. By permission of the owners of the steamer St. John (the same whose boiler recently exploded), he inserted a number of thermometers into the port boiler (the one which subsequently exploded), for the purpose of ascertaining the differences of temperature, if any existed in the interior of the boiler. The result of his observations are given as follows:

Below the water line	276 degrees.
In the steam from	395 to 500 degrees.
12 inch. above the rupture of the 29th Oct.	500 degrees.
12 inch. below the rupture of the 29th Oct.	269 degrees.

The surface of the water in the boilers oscilated up and down six inches, alternately heating the plate by expansore to the hot steam at 500 degrees, and cooling it by contact with the water at 269 degrees. It is fearful to contemplate when we now know that a sudden change of 231 degrees is constantly occurring in these boilers; and the certain effect must be, with such expansion and contraction, to permanently weaken the plates of the boiler. These experiments have already created a great sensation among boiler-makers and engineers, and a large number of well known mechanics have examined the experiment for themselves and expressed great surprise at the new and practical discovery.

A similar class of experiments was made some time since by Chas. Wyn Williams, Esq., who has been the managing engineer of the Dublin Steam-packet line for many years. His experiments were made for an entirely different end from that had in view by Mr. Wiard, and were conducted at a low range of temperature—from 90° to 120° Fah. His conclusions, however, were, that after both the steam and water had reached 212 degrees of temperature, there was thenceforward no perceptible variation of heat between the steam and water areas in the boiler. He states that when both thermometers indicated a temperature of 218°, they would both fall simultaneously to 212, on the steam being allowed to escape.

These experiments are very important, and should be repeated, for verification, by a disinterested party. Mr. Wiard claims that he has discovered a method by which the engineer can equalize the temperature in his boilers, at will, so as to avoid the risk of explosion from its inequality; and his experiments have been made to prove that such inequality *does* exist. Will not some of our San Francisco machinists or engineers, who can have no ulterior object in view, as an inducement to produce one or the other result, repeat the experiments in this city. The cost would be trifling, while the practical results might be of immense importance, and they certainly would elicit a very great degree of interest.

An Important Branch of California Invention.—On Fremont street, near Market, Messrs. Bryant, Strahan & McEachren have recently started an establishment for the manufacture of looking-glass and picture frames. These frames are there made in all the various styles and sizes, from the cheapest wood to the richest burnished and gilt. Heretofore, we believe, with the exception of one establishment, which has manufactured principally for their own use, these frames have been imported from Europe or the Eastern States. But Mr. McEachren, one of the members of the above-named firm, having been engaged in this branch of industry from his boyhood, conceived the idea of starting an establishment of sufficient capacity to supply the largely-increasing demand of this entire market. He has invented some new machinery, connected with this branch of manufacture, whereby a great amount of labor is saved over the old process. By the use of this improvement, and the energy of the individual members of the firm, the company is now doing a good business, and employing some twenty men in the various departments of enameling, moulding, and gilding; and hope soon to be able to supply the wants of the entire Pacific coast for this class of merchandise, thus adding another link to the great chain of supplying our own wants by our own industry. We wish the company abundant success in their new enterprise.

SKILLED LABOR FROM ENGLAND.

The English papers and manufacturers are noting with no small degree of alarm the present rapid emigration of skilled labor from England to the United States, and are already beginning to look upon it in the nature of a public calamity. A late issue of the London *Times*, in commenting upon this movement, says: "It is beginning to be a frequent occurrence for forty or fifty hands to leave at every pay-day, from the principal iron and coal works of the district. This is said while speaking of the districts of South Wales, where there are famous treasures of iron, copper and coal, and where the workmen are as well skilled and as independent as any in the Kingdom.

This emigration has been so great and so long continued that so great a scarcity of skilled workmen has been produced as to enable the "strikers" to so advance the rate of wages as to admit even of the introduction of foreign iron into English manufacturing establishments. This latter fact is fully admitted in a circular recently issued by one of the largest firms of iron dealers in the city of London. In this circular it is stated that foreigners have delivered special descriptions even into the very centre of the iron districts, and have also profitably supplied from foreign sources many castings that would derange and interfere with the appliances of an English ironfounder, such as can now be made in England only at a greatly increased price.

A single steamship, the Kangaroo, recently arrived at New York from Liverpool, with over one hundred and fifty artisans and factory hands from England and Ireland, who came to seek employment in the great manufacturing centers of the New England States, and aid in developing the rapidly increasing commercial interests of the Union.

So great is the annoyance to English iron masters and manufacturers, which has grown out of this continued restlessness of workmen there, that agents have even been sent to this country to tempt the workers in iron back again to Europe; hoping by the return of such men to deter others from going abroad.

Hitherto the efforts of Americans have been chiefly directed to protective duties and a decrease of the price of home labor, to enable our people to compete in our own and the markets of the world, with foreign manufactures. The plan now is to create such a demand for foreign labor here, as to bring up the price of labor in Europe to something near our own standard; and thus prevent foreigners from supplying the markets of the world with manufactured goods through the aid of cheap labor and at the expense of the better and well paid labor of the United States. This condition of things is being brought about by a well organized emigration agency, and will have the effect to break up the oppressive system under which the English mechanic has hitherto been compelled to employ his labor at less than half its value, to build up and perpetuate the great moneyed aristocracy of England.

A ministerial order has been issued in France that only utensils tinned with pure tin should be used in the military hospitals, and M. Jeannel gives the following process for detecting small quantities of lead in tin. He treats five decigrammes of the metal filed off with an excess of nitric acid diluted with three times its weight of water, boils the mixture, filters, and then drops into the solution a crystal of iodide of potassium. If only one ten-thousandth of lead is present, a yellow precipitate is formed, which does not disappear on adding an excess of ammonia.

New Patent Lock.—The Amador *Dispatch* says a burglar-proof lock, patented by W. C. Bussy, of Jackson, is pronounced by competent judges to be the very best ever invented. The lock needs no key, and is constructed on a new principle. The inventor, we are informed, can instruct any one to fix it so that he can unlock it himself. He defies any person not so instructed to open the lock by fair or foul means.

Straightening Shafts.

It often happens in the business of the machine shop that iron shafts have to be straightened before they are turned. It is customary in most places to use a common sledge, and hammer away until the task is completed. The consequence is that many blows are struck before the object is accomplished, and the work is bruised and greatly injured.

A much better plan practised in some shops, but not so generally as it should be, is to have a large screw set in a frame, on a cast-iron bed. The shafts are put under this screw, and adjusted to suit circumstances. One turn of it will do more work, of a better quality, than much hammering. Not only this, but by putting the shaft under the screw and measuring before correcting it, the job can be done at once with one setting, so that it will be unnecessary to take it out and put it in the lathe several times. Large shafting that has to be heated before it can be straightened, may be best readily when cold, under the screw press.

It is also common to straighten shafting by "peaning;" that is to say, by hammering it on the hollow side, or the reverse of the process ordinarily employed. It looks odd to see a man hammering a shaft on the bent side to make it straight, but the philosophy of it is rational. By striking on the hollow side the scale, or skin more properly, is expanded, and, being thus the longest, compels the shaft to bend toward the round side, thus making it straight. The blows must be light, however, or else the operation will not be successful; moreover, if the shaft be turned afterwards so as to remove the scale, it will run out of truth again, and the work be spoiled.

It often happens that rods or connections require to be "off-set" so as to come in properly. Though the "off-set" is always avoided where it can be, nothing is more convenient to bend a rod with than a screw press. By it all blackening and bruising of the bright work in the blacksmith shop is done away with, and the job is so much cheaper in consequence. For straightening shafts, however, there is nothing equal to the screw press, and we recommend those who have not tried it to build or buy one without delay.—*Exchange.*

Improved Plow—A California Invention. Mr. John Mott, of Contra Costa county, near Danville, has invented a new and ingenious double-revolving plow. The plows, two in number, are placed one above the other, upon a horizontal axis, under the beam and parallel to it. Its operation is as follows: After the plow has passed across the field, and turned for the return furrow, by the touch of a spring the plow not in use, and which turns as opposite furrow, falls down from where it is, suspended, while the team, in starting, brings up the one which has just been in use, and places it in a position where it is locked, awaiting the next turn of the team. The invention is a very simple one, and promises to be of great value for plowing gardens or lands which have been fenced, as well as ground where dead furrows are objected to.

Light Railroad Locomotives.—Mons. M. Monette, a Parisian engineer, proposes to lay light rails on a narrow guage—about forty inches—on the sides of the old highways; and to work on them with small locomotives of four to five tons, or with horses in some cases. His plan seems much like what has been long in practice in most of the principal cities of this country, with horse-power, and for some years with dummy cars, and more recently with small traction engines.

A Wood-Splitting Machine.—Pierce's patent—an Eastern invention—is now in operation in Sacramento, at the corner of Second and L streets, and which, says the *Bee*, is attracting considerable attention. It consists of a knife on the end of a lever driven by steam, and works well. One man splits with it ten or twelve cords of sawed wood.

New Fusible Metal.—Dr. C. R. Von Hover has found that an alloy of cadmium 224 parts, lead 517.5, tin 295, and bismuth 1050, will melt at 149.9° Fahr. An alloy of cadmium three, and four each of tin, lead, and bismuth, fuses at 153.5°. An alloy of cadmium one, with two each of the others, or an alloy of one of each of the four metals, fuses at 155.3°. They all become pasty at lower temperatures, and all oxydize rapidly in water.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

Office of the Mining and Scientific Press—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the Inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the Mining and Scientific Press. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensues. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unequalled facilities for securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimensions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded in a letter by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos	$10
On every application for a design, for seven years	15
On every application for a design, for fourteen years	30
On every application for a patent, for seventeen years	15
On every caveat	10
On issuing each original patent	20
On filing a disclaimer	10
On every application for a re-issue	30
On every additional patent granted on a re-issue	30
On every application for an extension	50
On the grant of every extension	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C.	25

We have had successful experience in conducting these appeals and our services can be rendered on moderate terms.

N. B.—We make up our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents.

Mining and Scientific Press Office, No. 505 Clay street, corner of Sansome, San Francisco.

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It Is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

San Francisco:
Saturday Morning, Jan. 6, 1866.

A State Mining Convention.

Pursuant to the request of several mining journals and representative mining individuals, the association known as the "California Mining Bureau," of San Francisco, through their Board of Trustees, have issued the following call for a Mass Convention of the miners of California:

RESOLVED, That a Mass Convention of the miners of the State of California, be and is hereby called to assemble in the city of Sacramento, on WEDNESDAY, the 17th of January, A.D. 1866, at 12 o'clock, and that any person engaged in actual mining operations shall be eligible to a seat in said Convention.

JOSEPH W. LOW, Vice-President.
J. B. WHITCOMA, Recording Secretary.
San Francisco, December 6, 1865.

A STATE MINING BILL.

We publish in our issue to-day a bill introduced into the Legislature by Assemblyman Pattison, of Nevada, the object of which is to secure a general law, that shall be applicable to all parts of the State, for regulating the location of quartz claims, and keeping up the title to the same. The Bill, as introduced, is founded mainly upon the local laws which have been in force for many years in Nevada county, and which have been generally adopted as the basis of local mining laws throughout the State. Long experience has proven that the provisions of this law work well, and it is especially desirable that they should become general, and receive the sanction of State legislation.

The author of the Bill, though he has given the subject much thought, and has had considerable experience in its practical working in the district where he resides, does not claim that it is perfect, and has expressed a wish to receive suggestions upon the subject, with a view to its modification and improvement, before any further action shall be had upon it.

We understand that it is not his intention to put the Bill upon its passage before the 20th instant. By this delay the miners of the State will be enabled to thoroughly canvass its merits, and perhaps embody their matured and practical judgment at the approaching Quartz Miners' Convention, which will be held at Sacramento on the 17th instant. In the meantime, the Mining Committee, in whose hands it now rests, will report it back to the House, and ask its reference to the Judiciary Committee, to be examined as to points of law.

The suggestions of the Nevada *Gazette* appear to be well put, and are the only ones that occur to us at present. Those suggestions are to the effect that the locators of a claim should be required to describe its situation more accurately than is provided for in this bill, and that all sales of claims, whether the consideration is under or over twenty-five dollars, should be acknowledged before a proper officer. In order to entitle a bill of sale to record, it must be acknowledged, and in this respect we think quartz claims should be put upon the same footing as real estate. Holders of claims would then always be able to trace the title from the first locator, and this will become a matter of great importance in the future. We trust the quartz men of the state will carefully examine the bill, and suggest such improvements as they deem advisable.

INTERESTING INCIDENTS.—An interesting ceremony took place on Saturday evening of last week—the last working day of the old year in the large erecting shop of the Vulcan Iron Works, on Tremont street. The mechanics employed in the various departments of this extensive establishment met on that occasion for the purpose of presenting the superintendent, Mr. Joseph Moore, a magnificent gold watch, of California manufacture, as a token of their esteem and affection. On the cover of the watch was engraved: "To Joseph Moore, from the Mechanics of the Vulcan Iron Works, San Francisco, January 1st, 1866." Mr. Birch, the estimable foreman of the works presented the gift in a neat and appropriate speech, to which Mr. Moore replied as follows:

"Boys, I receive with hearty thanks this token of your good will towards me. It is most gratifying to me to know that every workman in this establishment regards me as his friend. The workmen of the Vulcan Iron Works, I am proud to say, have always been noted for their skill, intelligence, and gentlemanly conduct. A kindly feeling and good understanding has always existed between you and your employers, and I trust these mutual good feelings will be perpetuated through many years of prosperity to both. In conclusion, I assure you I shall always try to merit a continuance of your confidence and esteem. I again thank you most cordially, and wish you many happy New Years."

After the conclusion of this ceremony, the moulders and mechanics of the foundry presented to Mr. Steiger, one of the proprietors, a very handsome gold-headed cane.

The boiler makers also presented to Mr. Aiken, himself a proprietor, a magnificent gold watch-guard. Such acts of courtesy displayed by proprietors and employees alike, are refreshing to chronicle. These social reunions tend to cement that friendship and good feeling which should ever exist between employers and employees.

COPPER ORE SHIPMENTS.—The shipments of copper ore from the Union mine, at Copperopolis, for the week ending Dec. 21st, were 532 tons. The shipments for five days ending Dec. 28th, were 394 tons.

Ten sacks of sample ore, from the Keystone mine, were shipped to this city from Stockton on Tuesday last.

The Stockton *Independent* of Dec. 28th, says that a few days previously the Taunton copper smelting company shipped from that city to San Francisco, 61 tons of regulus, or copper matte. The Campo Seco mining company shipped on the same day 86 tons of ore. On Tuesday, 24 tons of copper ore arrived at Stockton from the Campo Seco mine.

SQUARZA, THE INCOMPARABLE.—The genial spirit who presides over the mysterious precincts at No. 44 Leidesdorff street, remembered his friends, as usual, on Monday last, with an abundance of the tangible evidence of his inimitable skill as a compounder of beverages, suitable for New Year's festivities. The reception of a houutiful supply at this office is gratefully acknowledged.

THE STOCKTON AND COPPEROPOLIS RAILROAD. Richard Ivers, Esq., one of the proprietors of the Vulcan Iron Works, in this city, has, in connection with G. D. Nagle, taken the contract to build the Stockton and Copperopolis Railroad. The contract price is $1,250,000. The road will be completed within three years; the cars will probably be running on a portion of the track by next September.

IMPORTANT DECISION.—In the Nevada Supreme Court, in the case of Milliken et al vs. Sloat, Judges Brosnan and Beatty have filed their opinion reversing the order for payment in coin, and, in effect, completely upsetting the Specific Contract Act—as, in express terms they declare it in conflict with the law of Congress making the national issues legal tenders, and consequently void. Chief Justice Lewis dissents.

DIVIDEND.—The Gould & Curry Silver Mining Company have declared a dividend of $50 per foot.

ONLY A MILLION.—The bond of the Collector of Customs at San Francisco is one million dollars.

NEW QUARTZ MINING BILL.

The following bill has been introduced in the California Legislature by Assemblyman Pattison of Nevada:

AN ACT

For Acquiring and Maintaining Titles to Quartz Mining Claims.

The People of the State of California, represented in the Senate and Assembly, do enact as follows:

SECTION 1. The provisions of this act shall extend over all quartz mining claims in the State of California.

SEC. 2. Each locator of a quartz claim shall hereafter be entitled to two hundred feet on a quartz ledge or vein, and the discoverer shall be allowed one hundred feet additional. Each claim shall include all the dips, angles, and variations of the vein.

SEC. 3. On the discovery of a vein of quartz, three days shall be allowed to mark and stake off the same, in such manner, by name of the owner or owners, and the number of the claims, or otherwise, as shall properly and fully identify such claim. Parties having claims may cause a map or plan to be made, and a copy filed with the County Recorder of the county in which the claims are situated, to more particularly fix the locality; but a map or plan shall not be obligatory.

SEC. 4. Any person, a citizen of the United States, or any person having taken the necessary steps to become a citizen of the United States, shall hereafter be entitled to hold one quartz claim on any distinct and separate lead as provided in section two, and as many more as may be purchased in good faith for a valuable consideration.

SEC. 5. When the consideration does not exceed the sum of twenty-five dollars, the said claims may be transferred by a bill of sale, in the presence of one witness, without the acknowledgement of any officer; but when the consideration for such transfer shall exceed the sum of twenty-five dollars, the bill of sale or deed shall be acknowledged before some competent officer, as in real estate.

SEC. 6. A notice shall be posted on the claims, containing the number of feet claimed, name or names of the person or persons making the claim, and the initial or starting point of such claim; and within fifteen days after the discovery of the claim a copy of the aforenamed notice shall be filed for record with the County Recorder of the county in which the claim is situated. On filing the notice with the Recorder, the person presenting the notice shall make affidavit before the said Recorder that such notice has been posted on said claim prior to the filing of the notice, or the affidavit may be made before any other competent officer and sent to the Recorder with the notice. The affidavit shall be placed on record with and as a part of said notice.

SEC. 7. Within thirty days after the filing of the notice, as above provided for, an owner or an agent for the owner or owners of such claim shall file in the County Recorder's office an affidavit that work has been done on such claim to the amount as follows: If the claim be less than five hundred feet, to the amount of twenty-five dollars; if the claim contains between five hundred and one thousand feet, to the amount of fifty dollars; if the claim contains between one thousand feet and fifteen hundred feet, to the amount of seventy-five dollars; if the claim contains between fifteen hundred and two thousand feet, to the amount of one hundred dollars; if the claim contains between two thousand and twenty five hundred feet, to the amount of one hundred and twenty-five dollars; if the claim contains between twenty-five hundred and three thousand feet, to the amount of one hundred and fifty dollars; if the claim contains between three thousand and thirty-five hundred feet, to the amount of one hundred and seventy-five dollars; if the claim contains between thirty-five hundred and four thousand feet, to the amount of two hundred dollars; if the claim contains between four thousand and five thousand feet, to the amount of two hundred and fifty dollars; if the claim contains between five thousand and six thousand feet, to the amount of three hundred dollars. No claim exceeding six thousand feet shall be admitted upon the same affidavit. Upon the expiration of the aforementioned thirty days, if the affidavit as above provided for be not filed, as herein provided, then the claim becomes null and void, and open to relocation by other parties.

SEC. 8. Within one year, and each and every succeeding year, after the filing of affidavit, as provided for in section seven, an owner or agent of the owner or owners of such claim shall file with the Recorder an additional affidavit, to the effect that since the filing of the last previous affidavit, the owner or owners, through themselves or by their agent, have done work on such claims as follows: Five hundred feet or less, to the amount of twenty dollars; five hundred to one thousand feet, to the amount of forty dollars; one thousand to fifteen hundred feet, to the amount of sixty dollars; fifteen hundred to two thousand feet, to the amount of eighty dollars; two thousand to two thousand five hundred feet, to the amount of one hundred dollars; two thousand five hundred to three thousand feet, to the amount of one hundred and twenty dollars; three thousand to three thousand five hundred feet, to the amount of one hundred and forty dollars; three thousand five hundred to four thousand feet, to the amount of one hundred and sixty dollars; four thousand to five thousand feet, to the amount of two hundred dollars; five thousand to six thousand feet, to the amount of two hundred and forty dollars. Or the owner or owners, by themselves, or through their agent, may procure a license to hold such claim (after complying with the provisions of section seven) for the term of one year, at the rate and terms as follows: For a claim of five hundred feet or less, for the sum of ten dollars; five hundred to one thousand feet, for the sum of twenty dollars; one thousand to fifteen hundred feet, for the sum of twenty-eight dollars; fifteen hundred to two thousand feet, for the sum of thirty-five dollars; two thousand to two thousand five hundred feet, for the sum of forty two dollars; two thousand five hundred to three thousand feet, for the sum of forty-nine dollars; three thousand to three thousand five hundred feet, for the sum of fifty six dollars; three thousand five hundred to four thousand feet, for the sum of sixty-three dollars; four thousand to five thousand feet, for the sum of seventy-five dollars; five thousand to six thousand feet, for the sum of eighty seven dollars. In case the owner or owners of such claim fail to file the affidavit, as in this section [provided,] or, in lieu thereof, take out a license, as in this section provided, within one year after the filing of the affidavit provided for in section seven, then the same becomes null and void, and liable to relocation by other parties.

SEC. 9. The Controller of State is hereby authorized and required to prepare and furnish to the County Auditors of such counties as may require them, licenses, classed and of a value as follows: Class one, ten dollars; class two, twenty dollars; class three, twenty-eight dollars; class four, thirty-five dollars; class six, forty-nine dollars; class seven, fifty-six dollars; class eight, sixty-three dollars; class nine, seventy-five dollars; class ten, eighty-seven dollars. The Controller shall keep accounts with each Auditor in the same manner as made and provided for other licenses. The Controller may add the sum of twenty-five cents to the specified price of the above license as his fees, and the County Auditor shall collect the same in addition thereto, and account to the Controller for the same.

SEC. 10. The funds derived from the sale of the above "Quartz Mining Liscense" shall be devided as follows: One-third to the County School Fund of the county in which the license be sold, one-third to the State School Fund, and one-third to the General State and County Fund, to be divided and apportioned the same as funds derived from State and county taxes; providing, that the Auditor of the county shall be entitled to deduct from the amount five per cent. as his fees.

SEC. 11. County Recorders are hereby empowered to administer the oath, and may make out affidavits provided for in this Act.

SEC. 12. County Recorders are hereby entitled to charge and collect as their fees the same amount per folio as they are by law entitled in other matters of record, and shall be entitled to charge and collect the sum of fifty cents for each affidavit taken, and fifty cents for the filing of each affidavit.

SEC. 13. The provisions of this Act in regard to the location of claims does not include such claims as have been located previous to the passage of this Act, but such claims are required to keep up their title after the passage of this Act under the same provisions and in the same manner as claims located under and after the passage of this Act.

SEC. 14. Claims located previous to the passage of this Act, shall by their owner or owners, or agent of the owner or owners, comply with section eight of this Act within one year from the passage of this Act, or such claim shall be null and void and liable to relocation by other parties.

SEC. 15. When a time exceeding one year shall have elapsed without the filing of affidavit or procurement of license, as provided in section eight, it shall be deemed bona fide intention of abandonment, and shall be so ruled in any Court of justice in this State.

SEC. 16. The form of license as herein provided to be furnished by the Controller, shall be as follows:

QUARTZ MINING LICENSE.

Class..... From..... to..... feet.
$.....

This is to certify that ..... has this ..... day of ..... A.D. 18.., paid into the County Treasury the sum of ....., thereby declaring his bona fide intention to have and hold, for the term of one year, a certain Quartz Mining Claim, known and described as follows:
.....
....., Controller.
....., County Auditor
for and in the county of .....

In addition to the above amount I have received the the sum of twenty-five cents, the same being placed to the credit of the Controller of State.
....., Auditor.

SEC. 17. The County Auditor shall keep a register, in which he shall record each license granted, the name of the person or persons to whom granted, the name of the claim, if it be designated by a name, and the district or neighborhood in which the claim is located, and file the same montly in the office of the County Recorder.

SEC. 18. This Act shall take effect on and after its passage.

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INDISPENSABLE!

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BROCKWAY'S

PERPETUAL CALENDAR

Shows without hesitation

The Date or Day of the Week

—OF—

Any Day or Date in the 19th Century,

Rendering it a prompt and accurate

ASSISTANT RECKONER,

Besides answering fully
And Conveniently
All the Purposes of the
Ordinary Counting-House Calendar
During the Nineteenth Century.

The Calendar for each month is arranged in a single column, as in the regularly published (book) Almanacs, rendering it more easy for reckoning, in most instances, than the customary Counting-House form of Calendars.

It is simply understood.
It affords the same reference from year to year.
It avoids errors.
It occupies a convenient space.
Its usefulness increases by use.
Once used it becomes indispensable,
It is worth one hundred times its cost.

Its cost is trifling, but its value is constant and perpetual. For a single reference it is often worth ten times its cost. In FINANCIAL, LEGAL and BUSINESS transactions, it saves many grave and important mistakes.

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PRICE.....50 CENTS.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, January 6th, 1866.

During the past year the receipts of uncoined gold and silver in this city through regular channels were as follows:—From California, $25,957,750; Nevada, including Reese River, $15,800,000; Idaho, Cariboo, Fraser River, etc., $6,948,511—in all $48,705,511. To arrive at the probable bullion product of the coast, it is proper to add at least 20 per cent. to these figures for California, to allow for receipts in private hands. From the North coast fully 40 per cent. should be added, for the reason that a much larger amount of treasure in private hands is received from Portland and Victoria than from any other mining region tributary to this city. All the bullion sent hither from Nevada arrives by public carriers. In making the additions alluded to, it will be found that the total product the past year amounted to $56,678,410, and that California produced $31,149,300, as against $28,400,000 in 1864. The yield of Nevada last year was just about the same as in 1864; and that of the North coast say $9,700,000 in 1865, as against about $10,000,000 in the preceding year.

In glancing briefly at a review of the share market for the past twelve months, it may be noted that until about the close of April last nearly all leading stocks had been well maintained at higher quotations than were ruling at the beginning of the year, but at the former date, owing to the diminished productiveness of nearly every claim on the Comstock, and the unfavorable financial condition of certain companies, a serious depression took place throughout the months of May and June. A rather better feeling was inaugurated in July, and during the ensuing months of August and September, no very violent fluctuations were witnessed, and confidence seemed to be measurably restored. Early in October symptoms of a decline were again apparent, and the market soon became under the influence of a panic, which continued without much abatement until the middle of December, every share on the list touching the lowest point reached for a long time. Since then the Comstock lode has given evidence of more permanency, and a number of mines have materially improved. The yield of bullion has increased, and there is now a fair prospect that the debts of several companies will soon be materially reduced without the aid of any further assessments. During the past week the market has exhibited less strength, and some fluctuations have occurred in the more prominent shares.

Gould & Curry opened in January last at $1,590, advanced to $2,015 in April, fell to $1,480 in May, rose to $1,750 July 1st, dropping to $1,000 in October, rallying to $1,300 in September, receding December 13th to $700, selling this week at $910@880, and closing at $900. From January to May last inclusive, regular monthly dividends of $75 per foot were paid; in June and July $50, and August $40 per foot were disbursed. For the month of December a dividend of $50 per foot has been declared.

Savage fell from $1,640 last January to $1,560 in February, rose to $2,025 in April, declined to $1,150 in June, then rallied to $1,425, receded to $1,175 July 30th, rose to $1,300 September 1st, steadily declined to $625 in November, rallied to $800, fell to $500 (assessment of $100 per foot delinquent), rose to $1,025 December 19th, and selling this week at $830@$750, closing at $760. From January to May last inclusive, regular monthly dividends of $75 per foot were declared. None have been made since then.

Yellow Jacket opened last January at $765, advancing throughout the month, and in February and March to $2,750, steadily declining the months of April, May, June, and July, to $1,090, advancing to $1,350 and $1,460 in August and September, dropping to $200, December 16th, rallying to $580 at the close of that month (assessment of $100 per foot delinquent), selling this week at $542@410, and closing at $440. In March last a first dividend of $75 per foot was declared, and in April and May dividends of $100 per month were paid.

Potosi was steadily maintained throughout January and February at $700@750, advancing in April to $1,360, buyer 30, dropping in May and June from $750 to $150, rallying at the close of the latter month to $467, and in July to $480, declining to $410 in September, and dropping to $328 November 3d, since which time this company has had no incorporate existence, being merged into the Chollar. In May, June, and August, three assessments of $50 each were levied, and in October one of $19 per foot was levied.

Chollar declined from $1,050 in January to $810 in February, and $585 in March, advancing to $1,000 in April, receding to $160 in June, rallying to $473 at the close of that month, and to $500 in July, receding to $480 in September, and to $340 November 3d. This company paid two dividends of $40 per foot each in January and February last, and during the past year three assessments were levied, two of $50 each and one of $34.

Chollar-Potosi declined from $310 to $250 in November, rose to $270 at the close of that month, fell to $110 in December, then rose to $177½, and sold this week at $176@135, closing at $145. This company levied no assessment of $100 per share in December 16th.

Crown Point rose from $650 in January, to $1,450 in March, declining from $1,360 in April to $725 June 1st, advancing throughout July and August to $1,250, receding in September, October, and November to $675, and in December to $380, then rallying to $510, and selling this week at $510@590, closing at $560 bid. An assessment of $100 was levied August 31st.

Belcher rose from $975 in January to $1,650 in March, and to $1,800 in April, declining to $620 in June, rising to $850 in July, and to $910 in September, steadily dropping throughout October, November, and December to $125, selling this week at $175@159, and closing at $150. During the past year dividends amounting in all to $336 per foot were declared, and an assessment of $100 per foot was levied December 14th.

Alpha rose from $950 to $1,425 in April, then fell to $700, advanced to $1,000 in June, to $1,470 in July, and to $2,200 in October; then steadily receding in November and December to $130, and selling since January 1st at $250@190, and closing at $203. During the past year, three assessments, amounting in all to $660 per foot, have been levied.

Ophir fell from $375 in January last to $300, rose to $590 in April, fluctuating between $550 and $480 in May and June, rising to $530 in July, dropping to $275 September 1st, rallying to $515 October 10th, declining throughout November and December to $200, seller 30, selling this week at $360@295, and closing at $305. An assessment of $100 per foot was levied August 31st.

Hale & Norcross declined from $260 to $210 in January last, rose in March to $350, and in April to $625, dropped to $400 in May, and to $650 in June, receding to $480 September 1st, rallying to $60 October 1st, falling throughout November and December to $95, then rallying to $400, selling this week at $290@265, and closing at $240. bid. Six assessments, of $50 each per foot, have been levied during the past year.

Imperial rose from $120 in January, to $192 in March, and to $285 May 10th, falling to $235 May 20th, and to $139 June 1st, then advancing in June and July to $218@245, receding to $218 July 20th, rallying to $225 August 20th, steadily receding throughout October, November, and December to $77, seller 30, rising to $130, and selling this week at $133@108, closing at $110. During the past year dividends have been declared amounting in all to $68 per share.

Overman opened January 1st at $120, fell to $90, rose to $245 February 20th, and to $350 March 10th, steadily declining throughout April, May, and June to $100, rallying to $342 July 10th, receding in August and September to $135, rising to $175 October 1st, and receding in November to $40, and on the 16th December to $7, then rising to $80, and selling this week at $67½@45, closing at $47. Two assessments, amounting to $75 per share, have been levied during the past year.

Bullion declined in January and February from $115 to $60, advanced in May to $155, dropping to $130 in June, rising to $180 July 20th, receding in September to $125, in October to $70, in November to $38, and to $5 December 16th, rallying at the close of that month to $80, and selling this week at $35@27½. Six assessments have been levied the past year, amounting in the aggregate to $126 per share.

LIST OF OFFICERS OF MINING COMPANIES AND INCORPORATIONS.

[PUBLISHED IN THE FIRST ISSUE OF EACH MONTH.]

[Below we give the date of recent meetings held in this city and the names of officers chosen or appointed. Every bona-fide company is invited to send us the result of their election, to be thus put on record, gratuitously, with any other facts of general interest.]

DANEY G. & S. M. Co.—March 6th, 1865. Trustees, Edward Martin, W. W. Palmer, W. B. Johnston, I. C. Vandervoort, H. A. Fox, C. Collischonn, E. J. Pringle; President, W. W. Pulmer; Secretary, A. Noel; Treasurer, Abel Guy.

HANSCOM C. M. Co.—December 21st. Trustees, W. W. Hanscom, Thoraton Thompson, Martin White, Jas. Biddolph, James Pendergast; President, W. W. Hanscom; Secretary, W. L. Gitchell.

JEFFREY O. M. Co., Mattole, Humboldt Co., Cal.—Trustees, Wm. M. Rider, Geo. W. Grant, Henry O. Howard, Joseph Frazier, V. Squarza; President, Charles W. Newman; Secretary, A. S. Gould; Treasurer, V. Squarza; Superintendent, Harris B. Wentworth.

SIERRA VALLEY G. & S. M. Co., Summit Township, Plumas Co., Cal.—Trustees, Earl Bartlett, C. B. Land, Lucius A. Booth, A. Noel, A. Dolet; President, C. B. Land; Secretary and Treasurer, A. Noel; Superintendent, S. R. Palmer.

RECENT INCORPORATION.

MOUNTAIN PETROLEUM Co.—November 24th. Trustees, Thomas Coles, G. C. Clark, James Walsh.

Calendars for 1866.—The MINING AND SCIENTIFIC PRESS JOB PRINTING OFFICE is prepared to execute every manner of Counting-house Calendars and advertisements for various business men, on short notice and moderate terms.

San Francisco Stock and Exchange Board.

SAN FRANCISCO, December 23, 1865.

	Bid.	Asked.
United States 7 3-10ths	$ 69	$ 70
Gov. Legal Tender Notes	69¼	69¾
State Bonds, 7 ₰ cent	83	85
San Francisco 10 ₰ cent	..	..
San Francisco Bonds, 1855, 6 ₰ cent	70	..
San Francisco Bonds, 1858, 6 ₰ cent	65	..
Sacramento City Bonds, 6 ₰ cent	..	..
Sacramento County Bonds, 6 ₰ cent	50	55
Marysville Bonds, 10 ₰ cent	75	..
Stockton Bonds, 10 ₰ cent	60	..
Yuba County Bonds, 10 ₰ cent	75	90
Butte County Bonds, 10 ₰ cent	65	80
California Navigation Co	60	61
State Telegraph Stock	20	..
San Francisco Gas Co	100	105
Sacramento Gas Co	..	75
Spring Valley Water Co	55	56
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	42	45
Central Railroad Co	..	65
North Beach and Mission	41	42
MINING STOCKS.		
Ophir	$ 300	$ 305
Gould & Curry	900	920
Empire M. & M. Co	....	....
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	760	765
Chollar-Potosi	145	150
Hale & Norcross	275	280
White & Murphy	....	....
Sierra Nevada	7	8
Daney	..	..
Burning Moscow	..	..
Lady Bryan	..	..
Sacramento & Meredith	....	....
Burnside	....	....
North American	....	....
Baltimore American	....	....
Yellow Jacket	430	435
Overman	47	48
Cedar Hill Tunnel	....	....
Wide West	6	7
Crown Point	550	560
Antelope	....	....
Emeralda	1	5
Etna	....	....
Real del Monte	..	15
Bullion, G. H.	30	31
Euckeyo	....	....
Dick Sides	....	....
Imperial	112	113
Alpha	195	200

Just and True Economy

The Proprietors of the MINING AND SCIENTIFIC PRESS would call the especial attention of MINING SECRETARIES, TRUSTEE and SHAREHOLDES, to a few substantial reasons for the publication of Mining Notices in their journal—the first and only important newspaper of its class published upon this coast.

1st. The PRESS enjoys a large and permanent subscription list, having a more universal circulation among shareholders and men intimately connected with mining interests than any other publication.

2d. Under the present law the publication of all mining notices on Saturday, in a weekly journal, complies as fully with the statutes as a daily publication. It is generally found to be equally as convenient for secretaries, and decidedly preferable to stockholders who have not time to examine throughout every issue of a daily.

3d. Economy in mining should always be looked upon with favor, and the cost for weekly advertising in the PRESS is less by one HALF than the rates of any other journal in this city possessing a respectable circulation.

4th. The publishers of the PRESS, making the mining interest their especial care, take particular pains to assist in the avoidance of errors in advertising. Our print is also more clear and perfect than can be expected in such papers as are hurriedly issued from cylinder presses.

5th. Our "Shareholders' Directory" forms a complete index of all mining notices published in San Francisco, by reference to which shareholders can at once see if their company is advertised, and determine whether the same is inserted in the PRESS or some other paper.

6th. Many copies of the PRESS are bound by prominent professional men, mechanics, secretaries, brokers, shareholders and others, as an important record for future reference, thereby rendering advertising, of every class, in its columns, of peculiar and permanent value.

7th. The benefit of having all mining notices consolidated in one newspaper, for the common convenience of shareholders, secretaries, and others who have occasion to refer to the same, is obvious. With this view we have established our rates at only fair, living prices, believing that a journal like ours, untrammeled by party, creed, or prejudice, is the only medium which can reasonably ask for such a consolidation of mining patronage.

8th. Advertisements in the columns of the PRESS, after their first insertion, are arranged alphabetically. Our present list is equalled only in one instance by that of any other journal. Shareholders, as well as strangers, naturally turn their attention to a mining journal for information concerning the mines and mining matters.

LAST, BUT NOT LEAST.—Our sheet (having been recently enlarged to the size of Harper's Weekly) is now only equalled in its dimensions by one mining paper in existence—the *London Mining Journal*. Published in this, the greatest mining field of the world, we desire that the PRESS shall have no superior. We can only realize our cherished object of building up a reliable advocate of the science and business of mining, which will be of just honor and profit to our community, by experience and liberal patronage. The bestowal of such favors only as naturally belong to us, and which it is clearly for the benefit of the mining fraternity to extend, is all that is requisite, and we are confident we shall receive it.

DEWEY & CO.,
4v11 Office Mining and Scientific Press.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'D DELINQ'T LIST.	DAY OF SALE.
Alameda Coal		Meeting Jan 8	
Animas, Durango, Mex.,	40c	Feb 3	Feb 19*
Arbitrios, Chihuahua, Mex.,	$1	Feb 5	Feb 15
Adams, Petroleum,	$5	Jan 11	Jan 25
Agawam, Nye co., Nev		Annual Meeting, Jan 13*	
Agawam, Nye co.,	$1	Jan 13	Jan 27*
Alban, Storey co., Nev.,	$1	Jan 9	Jan 20
Arroyo Seco, Amador co.,	$4	Jan 3	Jan 17
Alpha, Storey co., Nov.,	$50	Jan 18	Feb 17
Boston, El Dorado Co.,	50c	Dec 22	Jan 6
Buckeye, Lyon co., Nov.,	$3	Jan 3	Jan 20
Bullion,	$10	Levied	Nov 25
Bunker Hill, Amador co.,	$5	Jan 6	Jan 20*
Blue Ledge, Lander co.,	$1	Feb 3	Feb 19*
Blue Ledge, El Dorado co.,	$1.50	Jan 13	Jan 27*
Bunker Hill, El Dorado co.,	$1.50	Jan 20	Feb 2
Buckeye		Annual Meeting	Jan 10
Caledonia Tunnel, Gold Hill, Nev.,	$2	Dec 23	Feb 3
Capital		Meeting Jan 9	
Central		Annual Meeting	Jan 16
Cole, Storey co., Nev.,	$1	Dec 21	Jan 6
Chicago, Lander co., Nev.,	$2	Dec 30	Jan 15*
Crown Lead, Mariposa co.,	$5	Dec 30	Jan 15
Chollar-Potosi, Storey co., Nev.,	$100	Jan 21	Feb 1
Confidence, Storey co., Nev.,	$25	Jan 22	Feb 6
Cosala, Sinaloa, Mex.,	$1	Jan 29	Feb 10
Chollar-Potosi		Meeting Jan 8	
Daney, Lyon co., Nev.,	$1	Jan 15	Jan 31
Diana, Lander co., Nev.,	$10	Jan 20	Feb 6*
Dios Padre, Alamos, Mex.,	$2	Feb 2	Feb 14
Exchequer, Storey co., Nev.,	$2	Jan 17	Feb
Florida, Reese River,	$10	Jan 2	Jan 15
Franco-Americano, Nev.,	25c	Jan 26	Feb 9
Goodwin, Lander co., Nav.,	$2	Dec 16	Dec 30*
Great Western Tunnel Co., Aurora, Nev		June 27	Feb 10*
Geo Washington, Alpine co.,	$1	June 27	Feb 13*
Gould & Curry		Dividend payable Jan 3	
Hanscom, Copper, Del Norte co.,	15c	Jan 20	Feb 3*
Hornet, Lander co., Nev.,	$1	Jan 20	Feb 6*
Hale & Norcross, Storey co., Nev.,	$25	Jan 15	Jan 29
Honest Miner, Lander co.,	50c	Jan 13	Jan 29*
I. X. L., Alpine co.,	$3	Jan 2	Jan 16
Jeffroy Oil, Humboldt co.,	50c	Jan 4	Jan 15
Jura, Storey co., Nav.,	75c	Jan 2	Jan 15
Jewett, Storey co., Nov.,	$1	Jan 6	Jan 20*
Joe Lane, Lander co.,	50c	Jan 13	Jan 29*
Kentucky Copper, Calaveras co.,	$1	Jan 20	Feb 7*
Kentuck, Storey co., Nev.,	$17.50	Jan 3	Jan 15
Kohler Bros., Mex		Annual Meeting, Jan 8	
Lady of the Lake, S. F. Dist, Arizona,	25c	Dec 30	Jan 18*
Leland, S. F. Dist., Arizona,	25c	Dec 30	Jan 13*
Lady Bell, Del Norte co.,	10c	Dec 16	Jan 5
La Victoire, Mariposa co.,	$2	Jan 3	Jan 22
Lady Franklin, Alpine co.,	50c	Jan 6	Jan 26*
Lady Bryan, Storey co., Nev.,	$1	Feb 5	Feb 16
La Fernandez, Sonora, Mex		Sale Jan 6	
Mina Rica de las Flores, Calaveras co.,	50c	Jan 2	Jan 22
Maggie, Lander co, Nev.,	$4	Dec 26	Jan 11
Mattole Creek Oil Co		Annual Meeting, Jan 6	
Napoleon, Calaveras co.,	$7	Jan 23	Feb 3
Nuestra Senora de Guadalupe, Durango,	$1	Jan 27	Feb 14
Nevada, Lander co.,	$1.50	Jan 13	Jan 29*
New Idria		Meeting Feb 6	
Ophir		Adjourned Meeting, Jan 15	
Old Colony, Reese River,	$6	Jan 14	Jan 27
Oxford Beta, Esmeralda co., Nev.,	50c	June 27	Feb 14*
Owen's River Canal co.,	40c	Feb 3	Feb 19*
Open Sesame		Sale Jan 18	
Patrocina and Dolores, Chihuahua, Mex.,	75c	Dec 28	Jan 16
Paragon, Humboldt co.,	25c	Jan 6	Jan 26*
Peninsula, San Antonio, Lower Cal.,	$10	Jan 15	Jan 29
Rappahoe, Sinaloa, Mex.,	$2 50	Jan 17	Jan 31
Refugio, Chihuahua, Mex.,	$2½	Dec 27	Jan 9
Santa Cruz, San Antonio, Lower Cal.,	$3	Jan 9	Jan 10
Salambo, Tuolumne co.,	50c	Jan 3	Jan 22
Siempre Viva, Sinaloa, Mex.,	$2 50	Jan 6	Jan 20*
Sierra Nevada, Storey co., Nev.,	$3	Dec 28	Jan 15
Sierra Valley, Plumas co.,	$1	Jan 5	Jan 20
Santiago, Lyon co., Nev.,	$1	Jan 22	Feb 10
Sweet Vengeance, Yuba co.,	$1	Jan 20	Feb 6
Sierra, Douglas, co., Nev.,	$3	Jan 15	Jan 27
Sigel, Humboldt co., Nev		Annual Meeting, Jan 6	
Sierra Nevada		Annual Meeting, Jan 8	
Shashone, Lander co., Nev.,	$1	Jan 23	Feb 12
Salamander, Calaveras co., Cal.,	20c	June 27	Feb 10*
Trinidad and San Jose, Sinaloa Mex.,	$10	Jan 8	Jan 22
Tirita & M co.,	$3	Levied, Nov 25	
Tuolumne Mountain,	50c	Dec 27	Jan 16
United States, Lander co.,	$1.05	Dec 30	Jan 16*
Union Mattole, Humboldt co.,	$5	Jan 19	Feb 6*
Wide West, Alpine co.,	$3	Feb 3	Feb 21*
Yellow Jacket, Storey co., Nev.,	$100	Dec 15	Jan 15
Yuba, Brown's Valley,	$3	Feb 3	Feb 17*
Yankee Blade, Reese River, Nov.,	$15	Jan 13	Jan 29*
Yosemite, Humboldt co., Nev.,	$1.25	Jan 20	Feb 6*
Zenith		Annual Meeting, Jan 15	
"420," Storey co., Nev.,	$6.25	Dec 28	Jan 13

*Those marked with an asterisk (*) are advertised in this ournal.

It is said that miners, after working a while under ground, greatly prefer it to laboriog on the surface of the earth. Such is the power of habit.

Metallurgy.

MOSHEIMER'S CONCENTRATOR

RECEIVED THE FIRST PREMIUM

From the ROYAL POLYTECHNIC SOCIETY, in Cornwall, and was highly recommended by the Commissioners as the most Simple and Effective Concentrator for all kinds of Ores.

Every Quartz Mill ought to have them, as they not only save Gold and Silver, but also the Quicksilver and Sulphurets, without extra labor. They can be built entirely of wood at the mine, and will separate more perfectly in one operation, than any other Concentrator in use. Apply to

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THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

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Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
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Nickel and Cobalt Ore.

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Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done.
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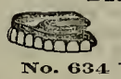

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MINING ENGINEER,

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A GENTLEMAN OF MUCH EXPERIENCE AS A MINING Superintendent, in England, Spain, and on the Pacific coast, and one intimately acquainted with every department of mining, and with nearly every class of mineral, is desirous of securing a position as Superintendent of some mining operation in California or Nevada. The applicant was for four years Superintendent of the New Almaden Quicksilver Mine, in this State. The best of reference given on application at this office.

San Francisco, Oct. 12, 1865 .5v11tf

A Business Compliment.

PETALUMA, Oct. 4, 1865.

MESSRS. DEWEY & CO.—Gentlemen: Your note informing me that my patent for Crushing and Baling Machine is ordered to issue is at hand. Please accept my thanks for the prompt and business like manner with which the case has been conducted, and inclosed find twenty dollars for balance Government fees. Respectfully, etc.

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A CONTRACT WILL BE LET TO A RESPONSIBLE party to sink an Oil Well, as deep as may be required, on land belonging to the "Bel River Oil Company," situated in Humboldt county, Cal. For particulars, inquire at the office of the Company, No. 436 Jackson st., up stairs.
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VERY FINE WATCHES FOR LADIES.

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Shareholder's Proxy.

Know all men by these presents, that I, ... do hereby constitute and appoint ..... my attorney and agent, for me and in my name, to vote as my proxy, at a meeting of the ..... Mining Company, to be held ..... 186 , according to the number of votes that I should be entitled to cast were I there personally present.

In witness whereof I have this day hereunto set my hand and seal. .....[Seal]

Dated 186

Assessment Notice.

..... Company

.....

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ..th day of ....., 186 , an Assessment of .....per share was levied upon the Capital Stock of said Company, payable on the ..th day of .....186 , in United States gold and silver coin to the Secretary.

Any stock upon which said Assessment shall remain unpaid on Saturday, the ..th day of ....., 186 , will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on ....., the ..th day of ....., 186 , to pay the delinquent Assessment, together with the costs of advertising and expenses of the sale. By order of the Board of Trustees.

..... Secretary.

Office.....

NOTICE.—There are delinquent, upon the following described Stock, on account of assessment levied on the ..th day of ..... 186 , the several amounts set opposite the names of the respective shareholders as follows, to wit:

Names.	No. Certificate.	No. Shares.	Amount.
Theophilus Thistle	23	14	$140 00
Peter Pipe	2	3	30 00

And in accordance with law and an order of the Board of Trustees, made on the ..th day of ..... , 186 , so many shares of each parcel of said stock as may be necessary, will be sold at the.....

....., on ....., the ..th day of....., 186 , at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

..... Secretary.

Office.....

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An editor and practical printer, of good experience and recommendation, desires a situation and will accept a moderate salary on trial. Address this office.

At a late Teacher's Convention in Tennessee, the Superintendent of Schools stated that over 80,000 white people in that State could neither read nor write.

The New York *Tribune* on the 1st of November divided among its stockholders $50,000 as the profits of four months' business. As the entire original stock of the institution was only $100,000, the dividend is somewhat remarkable.

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An excellent, strong lad, from the interior, 17 years of age, desires to learn the Blacksmith's trade. His parents wish him to engage with a reputable firm, and learn his business thoroughly. Address, or inquire at, the office of the Mining and Scientific Press. 2v11tf

Important to Californians.—Many Inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. The Mining and Scientific Press Patent Agency has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

Mining and Scientific Press

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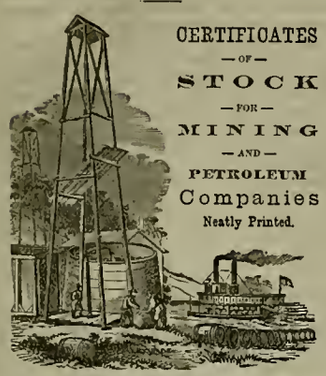
No. 505 Clay street, corner of Sansome.



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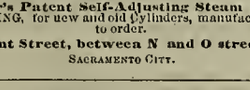

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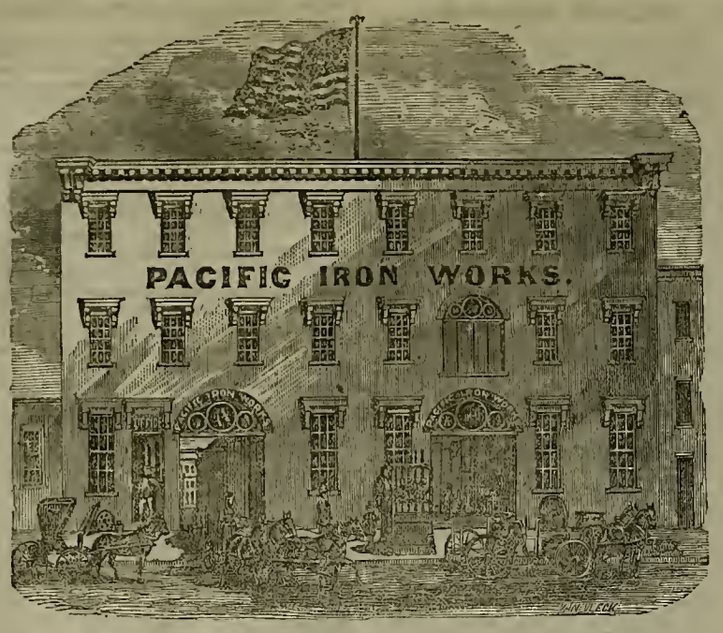

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The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

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Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR
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Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

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All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

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Steam Boiler & Sheet Iron Works.

THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.

Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

H. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!

Corner First and Mission streets,

SAN FRANCISCO.

ESTABLISHED IN 1849.

HAVING INCREASED OUR FACILITIES IN EVERY Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's Improved Tractory Curve Pan, Zenas Wheeler's improved flat bottom pan, Beldin's pan, Veatch's tubs, Prater's concentrators, Wakiee's pans, Beers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.
21v10 H. J. BOOTH & CO.

JOHN P. GALLAGHER. JOSEPH WEED.

GALLAGHER & WEED,

BRASS AND BELL FOUNDRY

And Lock Factory.

ALL KINDS OF BRASS AND COMPOSITION CASTINGS AND FINISHING DONE WITH NEATNESS AND DISPATCH.

CHURCH AND STEAMBOAT BELLS, OF ALL SIZES, made to order. Engineers' Gongs made and hung in the best manner. Bank, Vault, Store and Prison Locks; also Brass Padlocks and Shop Locks of various patterns, on hand and made to order.

☞ Particular attention given to casting Rudder Braces and Ship Work in general.

☞ All Jobs promptly attended to. Prices moderate.☜ No. 125 First street, opposite Minna next door to Pacific Foundry. 22tf

(Removed from Oregon street, between Front and Davis

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the Mining and Scientific Press. 19v11tf

PALMER, KNOX & CO.,

Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,

SAN FRANCISCO.

MANUFACTURE ALL KINDS OF

MACHINERY,

STEAM ENGINES AND QUARTZ MILLS

DUNBAR'S IMPROVED

Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S

NEW GRINDER AND AMALGAMATOR,

HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

FULTON

Foundry and Iron Works.

HINCKLEY & CO.,

MANUFACTURERS OF

STEAM ENGINES,

Quartz, Flour and Saw Mills,

Cast Iron Fronts for Buildings, Mining Pumps, Amalgamators, and all kinds of Machinery, Etc.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

SAN FRANCISCO

Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,

Manufacturers of

Marine and Stationery Engines!

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Salmon's Patent Amalgamator and Separator; Wheeler & Randall's New Grinder and Separator; Baux & Guiod's Amalgamator and Separator; W. W. Tupper's Patent Sectional Grate Bar; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white Iron.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings, a the lowest market rates.

6v11-1y **DEVOE, DINSMORE & CO.**

Novelty Iron Works,

Steam Engine, Boiler and Machine Shops.

STEAM ENGINES AND BOILERS, OF ALL KINDS, ON hand and Made to Order. Quartz, Saw and Flour Mills, and all other kinds of Machinery, made to order, bought, sold or exchanged.

Reynolds' Variable Cut-Off Saves from 25 to 60 per cent. of Fuel.

WINANS' ANTI-INCRUSTATION POWDER for Steam Boilers, a *SURE REMEDY*. Send for a Circular.

E. T. STEEN.

195, 197 and 199 Fremont st., cor of Mission

SAN FRANCISCO 21v9tfq

PORTLAND BOILER WORKS.

MOYNIHAN & AITKEN,

BOILER MAKERS AND SHEET IRON WORKERS.

N. B.—All kinds of Boiler and Sheet Iron Work executed at the shortest notice, and on the most reasonable terms.

Mission street, between Beale and Fremont streets, Sa Francisco. qy29-t

JOHN LOCHHEAD'S

STEAM ENGINE WORKS,

Beale Street, near Mission Street,

SAN FRANCISCO.

Steam Engines of every description built to order—Marine Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc.
25v9q JOHN LOCHHEAD, Practical Engineer

ASSESSMENT AND SALE LIST
OF CLAIMS IN
VIRGINIA AND GOLD HILL DISTRICTS.
CORRECTED WEEKLY FROM LATEST DATES OF THE TERRITORIAL ENTERPRISE.

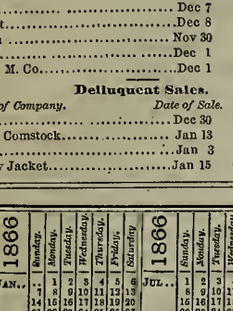
[This list embraces Companies advertised in Virginia City papers, most of which are not incorporated or advertised in San Francisco.

Assessments Levied.

Name of Company.	Date of Levy.	Am't per foot
Belcher	Dec 15	100 00
Belcher, Baldwin & Abernethy	Dec 15	106 00
Exchequer	Dec 16	2 00
Gold Tunneling	Dec 8	75
Hale & Norcross	Dec 16	25 00
Jara	Dec 7	75
Jewett	Dec 8	1 00
Milton	Nov 30	5 00
Sides	Dec 1	3 00
420, S. M. Co	Dec 1	5 20

Delinquent Sales.

Name of Company.	Date of Sale.	Place of Sale.
Globe	Dec 30	Virginia
North Comstock	Jan 13	Virginia.
Utah	Jan 3	Virginia
Yellow Jacket	Jan 15	Gold Hill,



POSTPONEMENTS.—We would again call the attention of Secretaries to a certain point of the mining law, too commonly overlooked, viz: The requirement that all postponements must be added previous to the expiration of the regular publication of assessment or sale notices.

MINING PROPERTIES.

PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining Interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble. 1v12

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of ALVA L. STILES, deceased. Order to show cause why order of sale of real estate should not be made.

It appearing to the said Court, by the petition this day presented and filed by John M. Stiles, the Administrator of the estate of Alva L. Stiles, deceased, praying for an order of sale of real estate, that it is necessary to sell the whole, or some portion of the real estate, to pay the debts, expenses and cha ges of administration that have already occurred, and the debts, expenses and charges of administration that will or may occur during said administration.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the eleventh day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County of San Francisco, to show cause why an order should not be granted to the said Administrator to sell so much of the real estate of the said deceased, as shall be necessary: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County

M. C. BLAKE, Probate Judge.

Dated January 4th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand and the seal of said Probate Court, this fourth day of January, A. D. 1866.

[Stamp and Seal.] WM. LOEWY, Clerk.
1v12-4w. By A. J. JEGHERS, Deputy Clerk.

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of SAMUEL L. DENNISON, deceased. Order to show cause why Order of Sale of Real Estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by C. E. McNear and Patrick Scully, the creditors of the Estate of Samuel L. Dennison, deceased, praying for an order of Sale of real estate, that it is necessary to sell the whole, or some portion of the real estate, to pay the debts outstanding against the deceased, the debts, expenses, and charges of administration that have already accrued, and the debts, expenses, and charges, of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased appear before the said Probate Court on Wednesday, the 11th day of February, A. D. 1866, at 11 o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County of San Francisco, to show cause why an order should not be granted to the said petitioners, authorizing and requiring the Administratrix of said estate to sell so much of the real estate of the said deceased, as shall be necessary: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County, and that a citation issue to said Administratrix, and be served upon her at least four weeks before said day of hearing.

M. C. BLAKE, Probate Judge.

Dated January 4th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand, and the seal of said Probate Court, this fourth day of January, A. D. 1866.

[Stamp and Seal.] WM. LOEWY, Clerk.
1v12 By A. J. JEGHERS, Deputy Clerk.

Oakland Water-Cure.

APRIL 1ST, 1864, WE OPENED A HYGIENIC BOARDING and Ladies' Health Institute in Oakland. The great advantage we have experienced since that time, in the treatment and cure of all those diseases peculiar to females, as well as those common to all, over that of San Francisco, induced us to give up the treatment of gentlemen in town. We have accordingly removed our entire Bathing, Electro-magnetic, and Gymnastic Apparatus, which we used especially in the treatment of males, to our Health Institute across the Bay, and have found, after a trial of several months, that gentlemen as well as lady patients recover, at our Fountain Farm Cure, one-third faster than in the city of San Francisco. The climate here is the most even and bracing to be found in the State. The grounds command a view unsurpassed in the world. The Institution is furnished with an abundance of pure, soft water, from numerous springs; and we now offer to Ministers, Teachers, Lawyers, Miners, Merchants, Mechanics, Farmers, and all other worthy persons, who desire to try the advantages of the only *rational* system of medicine, the hospitalities of our Hygienic Home and Cure. Young men who have become debilitated or lost their health by excessive toil, exposure, or enervating habits, contracted through ignorance of Physical Laws, may with us find more of the encouragements they need, and means that will restore them to health, than elsewhere in California.

We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that its followed by none of those debilitating diseases, such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, Intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Urethal Strictures, etc., which we well know result from the free use of mercury and other metallic drugs, together with stimulants and vegetable poisons often used to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in its facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douch Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to miners, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Mercurial, Lead, and Oak Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have yet used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, retorting metals, the malarial fogs and low marshy grounds. Where there was a fair constitution left, even when drugs had been applied for months and years without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflammatory and Mercurial Rheumatism; Paralysis; Lung, Bronchial and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Erysipelas, Scrofula, Piles, Inflammation of the Bowels, Chronic and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is so favorably situated to furnish so many home comforts and hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only truly healthful boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the dedication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in the bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institutions, (both in Sacramento and San Francisco) has induced us to make this class of human afflictions a specialty of this institution. We have treated (mostly for cure), over 300 females, several of whom had been "bedridden" for months and years, and all have been decidedly benefited, and with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

There is not one female invalid in twenty that has been suffering from nervous debility or diseases peculiar to her sex, that cannot be permanently cured by spending from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn of a single regret from husband or wife of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has labored successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo-Therapeutic College.

To all whom it may concern:

I have known Dr Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheertully recommend him as an honest, faithful delineator of character, and as such can cheerfully recommend him to the public.

For the good of Science.

L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

BARLOW J. SMITH, M. D.,
20v11tf San Francisco, Box 473.

OUR NEW YORK AGENCY.

MR. GEO. M NEWTON is our authorized agent in New York City, and will receive advertisements and subscriptions for the MINING AND SCIENTIFIC PRESS at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "STOCKHOLDER," **No. 72 William street.**

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Bunker Hill Quartz Mining Company,
Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 27th day of November, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Samuel Carr	50	10	$ 50 00
Samuel Carr	51	23½	116 65

And in accordance with law, and an order of the Board of Trustees, made on the 27th day of November, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by John Middleton & Son, San Francisco, on the 20th day of January, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WALES L. PALMER, Secretary.

Office, 19 First street, San Francisco.

N. B.—The above assessment is for the payment of balance due on mining machinery and its erection. jan9

Blue Ledge Gold and Silver Mining Company,
Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 2d day of January, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. jan6

Jewett Gold and Silver Mining Company,
Gold Hill District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
George E Willett	3	20	$20 00
A M Comstock	10	80	80 00
George E Willott	31	20	20 00
Wm H Bovee	82	40	40 00
James G Cooper	84	5	5 00
S R Harris	88	20	20 00
S R Harris	89	20	20 00
Wm H Bovee	102	60	60 00
J Fuller	108	38	38 00
Thomas Thwaites	117	8	8 00
E M Van Reed	127	20	20 00
Jacob Hardy	139	20	20 00
James G Cooper	143	19	19 00
G M Burnham	145	10	10 00
J M Lord	145	30	30 00
Wm H Bovee	151	16	16 00
James Wright	152	40	40 00
James Wright	153	40	40 00
James Wright	154	20	20 00
C E McNear	156	4	4 00
C E McNear	157	8	8 00
Edwin Tyler	158	51½	51 50
A E McNear	not issued	70	70 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of December, 1865, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the salesroom of Maurice Doro & Co., No. 327 Montgomery street, San Francisco, Cal., on the 20th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

jan6 G. M. BURNHAM, See'y pro tem.

Lady Franklin Gold and Silver Mining
Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessmout levied on the 7th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm Fido	unissued	7	$ 3 50
John G McCanlay	unissued	12	0 00
C Larson	unissued	70½	35 25
Andrew Willett	42, 43	9	4 50
C S Peak	47	7½	3 75
Wm Mercer 57, 58, 59, 60, 61, 63	64, 65	70	35 00
Phillip Weibe	142	5	2 50
John F Davis	148, 161	11	5 50
John Sanquott	170	10	5 00
George Day	171	5	2 50
A H Powers	174	10	5 00
W N Lee	200	5	2 50
H J Tilden	212	5	2 50
Mrs P J Couch	216	5	2 50
Frank Rabel	218	2	1 00
E J Bacon	231	10	5 00
Frank Beitchman	235	5	2 50
James Wilson	238	5	2 50
Sarah M Davis	240	15	7 50
Daniel Davidson	244	5	2 50

And in accordance with law, and an order of the Board of Trustees, made on the 7th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at the office of the Company, No. 305 Montgomery street, San Francisco, Cal., on the 26th day of January 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. S. LUTY, Secretary.

Office, 305 Montgomery street, San Francisco. jan6

Owen's River Canal Company, Tulare County,
California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of January, 1866, an assessment of forty (40) cents per share was levied upon the assessable stock of said Company, payable on the 8th day of January, 1866, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. BIBBINS, Secretary.

Office, 618 Merchant street, San Francisco, Cal. jan6

Paragon Petroleum Company.---Location
of Works: Mattole District, Humboldt County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
J W J Pierson	33	25	$6 25
J W J Pierson	34	25	6 25
J F Pinkham	24	20	5 00
J F Pinkham	25	20	5 00
J F Pinkham	26	20	5 00
J F Pinkham	27	20	5 00
J F Pinkham	28	20	5 00
A H Bewley	aggregate	23	10 00
R G Brown		20	50	12 50
R G Brown		30	50	12 50
R G Brown		31	50	12 50
R G Brown		32	50	12 50
R C Alden		35	100	25 00
R C Alden		36	100	25 00
R C Alden		37	100	25 00
J H Earle	aggregate	38	5	4 25
J H Earle	aggregate	39	5	4 25
J H Earle	aggregate	40	5	4 25
J H Earle	aggregate	41	5	4 25
J H Earle	aggregate	42	5	4 25
J H Earle	aggregate	43	5	4 25
J H Earle	aggregate	44	5	4 25
J H Earle	aggregate	45	5	4 25
J H Earle	aggregate	46	5	4 25
J H Earle	aggregate	47	5	4 25
F E Moore	aggregate	61	10	7 00
E D Waters, Jr		63	50	12 50
A T Dewey	aggregate	65	70	40 00
W B Ewer		66	100	25 00
W B Ewer	aggregate	67	70	40 00
J F Crossett		77	100	25 00
J J Mills	aggregate	80	10	6 50
A Riker		81	50	12 50
W B Lake	aggregate	85	50	29 00
J P Cogswell		88	50	12 50
Samuel S Field		100	120	30 00
Samuel S Field		101	120	30 00
J V P Mathias		103	20	5 00
J V P Mathias		104	20	5 00
J V P Mathias		105	20	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co, at No. 626 Montgomery street, San Francisco, Cal., on the 26th day of January, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

M. J. McMANUS, Secretary.

Office, No. 206 Jackson street, San Francisco. jan6

Siempre Viva Silver Mining Company,
Zaragora District, Sinaloa, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 2d day of December, 1865 the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bayerque, J B	10	100	$250 00
Canavan, P H	236	1	2 50
Canavan, P H	240	10	25 00
Fiseher, Chas	148	2	5 00
Garnett, L A	110	25	62 50
Garnett, L A	111	25	62 50
Garnett, L A	112	10	40 00
Garnett, L A	113	10	25 00
Larco, N	166	10	25 00
Mel, H	201	2	5 00
Chay We Sac	184	5	12 50
Ah Ye	222	5	12 50
King Yan	234	5	12 50
Wong Ten Heu	229	5	12 50
Cut Chong	230	5	12 50
Lo Park	231	5	12 50
Ah Shut	232	7	17 50
Ton Ah	233	3	7 50
Choug Tung	235	20	50 00

ALSO,

For account of assessment levied 28th July, 1855, advertised as delinquent 29th August, 1855, and offered at auction 9th September, 1865, but no biddor—

Fiseher, Chas	148	2	$ 5 00
Garnett, L A	110	25	62 50
Garnett, L A	111	25	62 50
Garnett, L A	112	16	40 00
Garnett, L A	113	10	25 00
Chay Wo Sac	184	5	12 50
Chong Tung	235	20	50 00

And in accordance with law, and an order of the Board of Trustees, made on the 21 day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of John Middleton & Son, on the 20th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

jan6 JOHN F. LOHSE, Secretary.

Wide West Gold and Silver Mining Company.
Location: Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of January, 1866, an assessment of three ($3) dollars per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 330 Davis street, San Francisco, or to F. L. JACKSON, Superintendent, at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 21st day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOSEPH GREEN, Secretary.

Office, 330 Davis street, corner of Washington street, San Francisco. jan6-4w

Yuba Gold and Silver Mining Company,
Brown's Valley, Yuba County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of January, 1866, an assessment of three dollars ($3) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 210 Pine street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 17th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up stairs, San Francisco. jan6

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Notice.—The Annual Meeting of the stockholders of the AGAWAM GOLD AND SILVER MINING COMPANY, for the election of Trustees, and transaction of such business as may come before them, will be held at the office of the Company, 436 Jackson street, San Francisco, on Saturday, the 13th day of January, 1866, at 12 o'clock M.

dec16 G. M. BURNHAM, Secretary.

Animas Silver Mining Company---Loention of Mines: Ventanas, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 30th day of December, 1865, an assessment of forty (40) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, pro tem., THOMAS HILL, at his office, No. 622 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day af February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses af sale. By order of the Board of Trustees.

THOMAS HILL, Secretary Pro tem,
Office, 622 Montgomery street, San Francisco, Cal. dec30

Agawam Gold and Silver Mining Company, Union District, Nye County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 12th day af December, 1865, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 13th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 27th day of January, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

G. M. BURNHAM, Secretary.
Office, 436 Jackson street, San Francisco. dol6

Blue Ledge Gold and Silver Quartz Mining Company, Kelsey District, El Dorado County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 12th day of December, 1865, an assessment of one dollar and fifty ($1.50) cents per share was levied on each and every share of the capital stock of the Blue Ledge Gold and Silver Quartz Mining Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on the 13th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 27th day of January, 1866, at 12 o'clock M. of that day, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.
Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco. dec16

Chicago Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon tha followlag described stock, on account of assesement levied on the 29th day of November, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Bradley, H W	18	16	$32 00
Bradley, H W	51	6	12 00
Cutter, H F	78	14	28 00
Cheevers, W H	25	11	22 00
Drinkhouse, J A	76	8	16 00
Dinkelspiel, L	27	5	10 00
Francis, D B	13	10	20 00
Gaylo, A B	74	17	34 00
Harker, W B C	35	5	10 00
Heath, R W	17	16	32 00
Knox, J W	67	11	22 00
Leppien, Fred	16	5	10 00
Turner, Anna K	26	5	10 00
Wightman, Jno	21	11	22 00
Whitlatch, J W	58	10	20 00
Whitlatch, J W	59	10	20 00
Whitlatch, J W	60	10	20 00
Whitlatch, J W	61	13	26 00
Williams, J J	54	5	10 00

And in accordanace with law, and an order of the Board of Trustees, made an the 25th day of Novemher, 1865, so many shares of each parcel of said stock as may he necessary, will he sold at the office of the Company, 402 Front street, hy Jones & Bendixen, Auctioneers, on the 15th day of January, 1866, at the hour af 1 o'clock P. M. of said day, to pay said dellaquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco, Cal. dec30

Diana Gold and Silver Mining Company, Lan- der County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of December, 1865, an assessment of ten dollars ($10) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary. 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid before Saturday, the 20th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 6th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. The said assessment being levied to pay off balances af indebtedness for improvements recently made at the mine. By ardor of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. dec23

Great Western Tunnel and Mining Company, Aurora, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of December, 1865, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid an Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of February, 1866, to pay the delinquent assessment, together with costs af advertising and expenses of the sale. By arder of the Board of Trustees.

JOS. C. FORD, Secretary.
Office, No. 21 Exchange Building, corner Washington and Montgomery streets, San Francisco. dec30

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal. Assessment No. 9.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 26th day of December, 1865, an assessment of one dollar ($1) per share was levied upon the capital stock of said campany, payable immediately, in United States gold and silver coin, ta the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 13th day of February, 1866, to pay the delinquent assesament, together with costs of advertising and expenses af sale. By arder of the Board of Trustees.

W. D. ROOT, Secretary.
Office, 338 Montgomery street, San Francisco. dec30

Honest Miner Gold and Silver Mining Com- pany, Lander County, Nevada.

Notice is hereby given, thnt at a meeting af the Board of Trustees of said Company, held on the 14th day of December, 1865, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, 402 Front street.

Any stock upon which said assessment shall remain unpaid on Saturday, the 13th day af January, 1866, will be advertised on that day as delinquent, and unless payment shall he made before, will he sold on Monday, the 29th day af January, 1866, to pay the delinquent assesment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front Street, San Francisco. dec16

Hornet Gold and Silver Mining Company, Lan- der County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 21st day of December, 1865, an assessment of one dollar ($1) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to tha Secretary, 402 Front street.

Any stock upon which said assessment shall remain unpaid hefore Saturday, the 20th day of January, 1866, will be advertised as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 6th day of February, 1866, to pay the delinquent assessment, together with costs af advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. dec23

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of December, 1865, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 20th day af January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 3d day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. OETCHELL, Secretary.
Office, No. 19 First street, San Francisco, Cal. dec23

Joe Lane Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trnstees of said Company, held on the 14th day of December, 1865, an assessment of fifty (50) cents per share wae levied upon the capital stock of said Company, payable immediately, in United States geld and silver coin, to the Secretary, 402 Frent street.

Any stock upon which said assessment shall remain unpaid en Saturday, the 13th day af January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 29th day of January, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. dec16

Jefferson Gold and Silver Mining Compa- ny, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment No. 2, levied September 25, 1863, of fifty cents; No. 3, December 11, 1863, of fifty cents; No. 4, February 4, 1864, of one dollar, the several amounts set opposite the names of the respective sharcholders, as follows:

Names.	No. Cert.	No. Shs.	No. 2.	No. 3.	No. 4.	Total Amt.
Brown, J S	130	11				$11 00
Browa, J S	140	9				9 00
Cassell, J K	10	10	$5 00	$10 00		15 00
Clarke & Blakeley	44	9¼	4 63	9 25	13 88	
Curtis, S T	95 to 102	10-ea	40 00	80 00		120 00
Curtis, S T	103	12½	6 25	12 50		18 75
Clifford, S O	112	12½				12 50
Clifford, S O	131	25				25 00
Clark, H	28	25				25 00
Clark, H	29	25				25 00
Clark, H	113	11½				11 50
Doling, P F	3	20				20 00
Donzel, A J	5	10				10 00
Faulkner, G H	41	5				5 00
Gilbert, Jos	05	20				20 00
Gilbert, Jos	66	20				20 00
Gilbert, Jos	67	20				20 00
Gilbert, Jos	135	6				6 00
Gilham, W B	133	7				7 00
Halman, T	40	5				5 00
Jacobs, N B & Co	42	10				10 00
Jones, J L	143	15				15 00
McGahey, Jas	22	6¼	3 12	6 25		9 37
Pinkerton, Chas	31	9¼	4 62	9 25		13 87
Seaver, L B	23	10	$5 00	5 00	10 00	20 00
Seaver, L B	24	10	5 00	5 00	10 00	20 00
Seaver, L B	23	10,	5 00	5 00	10 00	20 00
Smith, W K	4	20	10 00	10 00	20 00	40 00
Rex, H V	124	12				12 00
Sweetland, J O	129	5				5 00
Woodford, H C	12	20				20 00
Watson, N A	115	10				10 00
Watson, N A	144	25				25 00
Watsea, N A	147	46¼				46 50

And in accordaace with law, and an order of the Board of Trustees, made ou the 6th day of Decemher, 1865, so many shares of each parcel of said stock as may he necessary, will be sold at public auction, at the office of the Company, by Jones & Bendixen, auctioueers, on the 5th day of January, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent aescement thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francieco, Cal. dec9

Kentucky Copper Mining Company, Mme Fe- lix District, north of Copperopolis, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 20th day of December, 1865, an assessment of one dollar per shnre was levied upon the Capital Stock of said Company, payable on the 21st day of December, 1865, in United States gold and silver coin, to the Secretary, 644 Washington street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 20th day of January, 1866, will he advertised en that day as delinquent, and unless payment shall he made before, will be sold on Wednesday, the 7th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of salo. By arder af the Board of Trustees.

J. A. BAUER, Secretary.
Office, 644 Washington street, San Francisco, Cal. dec23

Leland Gold and Silver Mining Company, San Francisco District, Mohavo County, Arizona Territory.

NOTICE.—There aro delinquent upon tha following described stock, on account of assessment levied on the 30th day of November, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
William Packard	50	50	$12 50
William Packard	52	50	12 50
William Packard	53	50	12 50
William Packard	88	100	25 00
William Packard	103	11	2 75

And in accordance with law and an order of the Board of Trustees, made on the 30th day of November, 1865, ee many shares of each parcel af said stock as may he necessary, will be sold at public auction, at the office of the Company, San Francisco, Cal., on the 15th day of January, 1866, at the hour of 12 o'clock M. of said day, te pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.
Office, Room No. 2, 3d Floor, 302 Montgomery street, San Francisco, Cal. dec30

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Mohavo County, Arizona Territory.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 30th day of November, 1865, the eeveral amounts set opposite tha names of tha respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
A W Webh	49	10	$ 2 50
A W Webh	87	65	16 25
A W Webb	88	35	8 75
William Packard	113	261	65 25

Aad in accordance with law and an order of the Board af Trnstcee, made on the 30th day of November, 1865, so many shares of each parcel of said stock as may he necessary, will he sold at public auction, at the Office of the Compaay, San Francisco, Cal., en the 15th day of Jaaaary, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assesment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.
Office, 302 Montgomery street, Reem No. 2, 3d Floor. dec30

Madison Gold and Silver Mining Com- pany, Laader Couaty, Nevada.

NOTICE.—There are deliaquent upon the following described stock, on accouat of assessment No. 3, levied on the 27th of November, 1863, of 6fty cents per share, and No. 4, levied February 4th, 1864, of one dollar per share, the several amounts set opposito the names of the respective shareholders, as follows:

Names.	No. Cert.	No. Shs.	No. 3.	No. 4.	Total Am't.
Anderson, E O	12	5	$2 50	$5 00	$7 50
Bryant, A J	99	5	2 50	5 00	7 50
Clifford, S O	51	9	4 50	9 00	13 50
Clifford, S O	53	45			45 00
Clifford, S O	54	5			5 00
Clifford, S O	56	5			5 00
Clifford, S O	57	5			5 00
Clifford, S O	58	5			5 00
Clifford, S O	63	71½			71 50
Clifford, S O	118	14			14 00
Jacobs, N B	75	10	5 00	10 00	15 00
McAllister, P	16	25			25 00
McAllister, P	17	25			25 00
McAllister, P	18	25			25 00
McAllister, P	19	25			25 00
McAllister, P	21	10			10 00
Louis Dionne	130	10			10 00
Morrison, J C Jr	98	5	2 50	5 00	7 50
McHarg, D P	106	10			10 00
Pryor, C M	48	40	20 00	40 00	60 00
Pryor, C M	37	5			5 00
Plummer, B L	83	10			10 00
Spitzer, L A	126	5	2 50	5 00	7 50

Aad in accordance with law, aad an order of the Board of Trustees, made on the 5th day of Decemher, 1865, so maay shares of each parcel of said stock as may he necessary, will he sold at auction, at the office of the Company, by Jeacs & Bendixen, auctioneers, on the 8th day of January, 1866, at the hour ol 1 o'clock P. M. of said day, to pay said delinquent assessmeat thereon, together with costs of advertising and expenses of sale.

N. C FASSETT, Secretary.
Office, 402 Front street, San Fraaci-co. dec9

Nevada Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of December, 1865, an assessment of one dollar and fifty cents ($1.50) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid en Saturday, the 13th day of January, 1866, will be advertised en that day as delinquent, and unless payment shall be made hcfore, will be sold on Monday, the 29th day of January, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order ol the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco dec16

PRINTING FOR THE HOLIDAYS promptly executed in any style to suit tradesmen, at our JOB OFFICE, 505 Clay street.

Oxford Beta Tunnel and Mining Company, Es- meralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of December, 1865, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the said 22d day of December, 1865, in United States gold and silver coin, to the Secretary, or to the Saperintendent at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised en that day as delinquent, and unless payment shall be made before, will he sold on Wednesday, the 14th day of February, 1866, to pay the delinquent assessment, to gether with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretary.
Office, corner Broadway and Sansome streets, San Francisco. dec30

Salamander Gold and Silver Mining Compa- ny, Mill Valley District, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board af Trustees of said Company, held en the 28th day of December, 1865, an assessment of twenty (20) cents per share was levied upon each and every sharo of the capital stock of said company, payable on Friday, the 29th day of December, 1865, in United States geld or silver coin, to the Secretary, 121 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid en Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of February, 1866, to pay the delinquent assessment, together with costs af advertising and expenses of sale. By order of the Board of Trustees.

F. D. GALLAGHER, Secretary.
Office, Na. 35 Metropolitan Block, San Francisco, California. dec30

Union Mat··le Oil Company, Humboldt Coun- ty, State of California.

Notice is hereby given, that at a meetiag of the Board of Trustees of said Company, held on the 15th day of December, 1865, an assessment of five ($5) dollars per share was levied upon the capital stock of said Company, payable an the 16th day of January, 1866, to the Treasurer of said Company, at his office, 517 Jackson street, San Francisco, State of California.

Any stock upon which said assessment shall remain unpaid on the 19th day of January, 1866, will be advertised an that day as delinquent, and unless paymont shall he mada before, will be sold on the 6th day of February, 1866, to pay the delinquent assessment, together with costs af advertising and expenses of sale.

C. WINTER, Secretary.
Office, 517 Jackson street. dec23

United States Gold and Silver Mining Com- pany, Ravenswood and Santa Fe Districts, Lauder County, Nevada.

NOTICE.—There ara delinquent upon the following described stock, on account of assessment levied on the 23d day of November, 1865, tha several amounte eet opposeite the uames of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Fuller, Silas	1	300 hal	$283 00
Sharp, Geo F	2	300 hal	196 00
Cannon, J M	3	300 hal	315 00
Clarke, F M	6	100 hal	45 33
Lashier, Frank	8	150 hal	145 50
Clarke, Geo E	9	225 hal	142 25
Sawyer, Leander	10	300 hal	136 00
Fuller, R R	13	125 hal	131 25
Schuster, J S	14	124 hal	130 20
Baumer, George	15	125 hal	131 25
Schutze, Henry	16	125 hal	131 25
Plummer, M D	18	37½ hal	26 38
Stock, John	19	150 hal	18 00
James, D B	28	37½ hal	39 38

And in accordance with law, and an order of the Board of Trustees, made on the 23d day of November, 1865, se many shares of each parcel of said stock as may he necseeary, will he sold at public auction, at Maurice Dore & Co.'s Salesroom, No. 327 Montgomery street, San Francisco, on Monday, the 15th day of Jaaaary, 1866, at the heur of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.
Office, 618 Merchant street, San Francisco. dec20

Yankee Blade Mining Company, Reese River Mining District, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of December, 1865, an assessment of fifteen (15) dollars per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company.

Any stock upon which said assessment shall remain unpaid on Saturday, the 13th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 29th day of January, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

WM. T. ATWOOD, Secretary.
Office, No. 329 Montgomery street (Stevenson House), San Francisco. dec9

Yosemite Silver Mining Company, Oro Fina District, Humboldt county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of December, 1865, an assessment of one dollar and a quarter ($1.25) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, 402 Front street, San Francisco, or to J. T. MACLEAN, Superintendent, Star City.

Any stock upon which said assessment shall remain unpaid on Saturday, the 20th day of January, 1866, will be advertised en that day as delinquent, and unless payment shall be made before, will he sold en Tuesday, the 6th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. O. PUTNAM, Secretary.
Office, 402 Front street. dec23

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business throu Eastern agencies.

The James steam mill of Newburyport, which has just declared a semi-annual dividend of 25 per cent., has earned more than twice that in the last six months. The mill has a capital of $250,000, has paid its stockholders $412,000 in the past four years, and is worth more than enough more than it was then to make its earnings half a million.

Returned.—Doctor W. M. Ryer, brother of George Ryer, a well known California actor, has returned to his old home in Stockton, after an absence of two years. In those two years the Doctor has visited nearly every country in Europe, and all the civilized Mediterranean Coast of Africa, including the Pyramids.

There is a strong pressure in Congress in favor of intervention in Mexican affairs. Wade in the Senate and Schenck and Van Horn in the House have introduced resolutions denouncing the occupation of Mexico by the French, and calling for measures to effect their removal.

Removal.

The Office of the Mining and Scientific Press has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive Job Printing Office.

San Francisco, April 10th, 1865.

Economy in Advertising.—The Mining and Scientific Press is the best and most economical mining advertising medium in this city. Our terms are less than one half the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The Press contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on the coast.

Deserved Testimonial.

Grizzly Flat, Oct. 18, 1865.

Messrs. Hungerford & Henry—*Gentlemen:* We have run your Concentrator for several days past, in our 5 stamp Mills, and, as far as can be ascertained at present, it is a perfect success. When running at the rate of from two hundred and ten to two hundred and twenty-five revolutions per minute, we have lost neither quicksilver nor sulphurets. Formerly, when using copperplate riffles and blankets, we found that in spite of the utmost precaution, quicksilver would escape over them all. Wishing you all success, we remain Your obedient servants,

E. A. BIGLER.
S. F. DAVIS.

17v11qy

MINERS

Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.

Gold, Silver and Copper Ores bought in any quantity.

Assay of Ores made by a new Fire Process in half the usual time, and at half price.

Apply to **J. MOSHEIMER,**
23v11qy 423 Washington street, San Francisco.

QUARTZ OPERATOR'S HAND BOOK.

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,
Authors and Publishers,
Bound in Cloth—144 Pages, Duodecimo.

The Quartz Operator's Hand Book is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

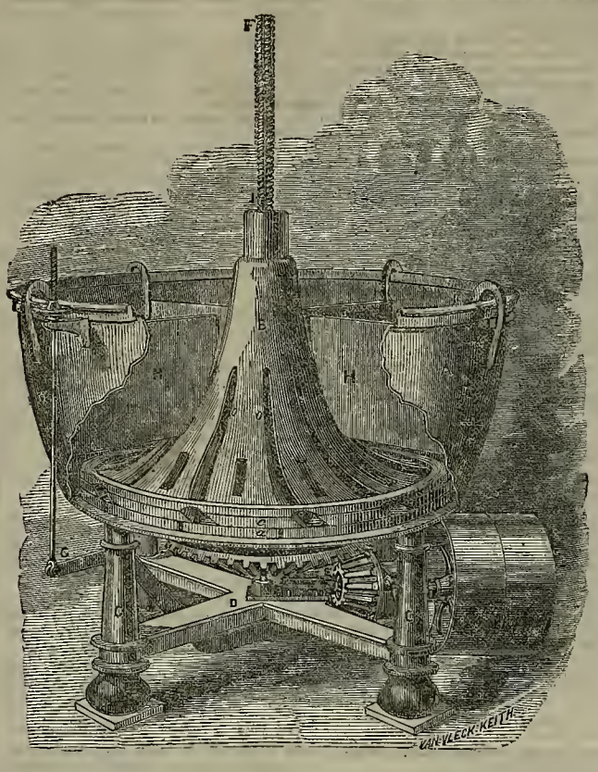
The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner.

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs. W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable Quartz Miner's Hand Book.

The Table of Contents of this book will be found on page 416 of the Mining and Scientific Press of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11



THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings.

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,
WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.

San Francisco, June 13, 1865.

LICK HOUSE,

Corner of Montgomery and Satter streets, SAN FRANCISCO.

S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests.

15v11

CLOTHING MADE FROM CALIFORNIA CLOTH,

For Wholesale and Retail Trade,

ALSO, CLOTHING MADE TO ORDER,

AT QUINCY HALL,

Nos. 545, 547 and 549 Washington Street,

SAN FRANCISCO, CAL.

19v11-3m

VALUABLE PATENT RIGHT FOR SALE.

The patent right for the United States of a valuable invention can be secured at a bargain by applying at this office. The article is one of general application throughout civilization.

DEWEY & CO., Publishers.

RUGGLES' PRINTING PRESS

For Sale or Exchange.

The Proprietors of the Mining and Scientific Press have on hand a Half-Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,
Office, 505 Clay street.

THE STYLE

—FOR—

Fall and Winter, 1865,

Will be Introduced Aug. 26, at

MEUSSDORFFER'S HAT MANUFACTORIES,

Nos. 635 & 637 Commercial st., San Francisco,

No. 125 J st., bet. Fourth & Fifth, Sacramento.

Corner D and Second Streets, Marysville.12v11

WE ARE NOW OFFERING OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LOW PRICES.

J. R. MEAD & CO.,
8v10 Cor. of Washington and Sansome streets.

SAN FRANCISCO CORDAGE MANUFACTORY.

CONSTANTLY ON HAND,

A Large and Complete Assortment

—OF—

MANILA CORDAGE,

FOR MINING PURPOSES.

—ALSO—

WHALE LINE, BALE ROPE, ETC.,

Manufactured from Pure Manila Hemp.

Hoisting Ropes for Deep Shafts,

—ALSO—

Lines for Ferry Boats,

Manufactured to Order.

Office at **TUBBS & CO.'S,**
Nos. 611 and 613 Front street
Manufactory at the Potre 14v10

JOHN TAYLOR & CO.,

—IMPORTERS AND DEALERS OF—

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

We are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from Franco and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco March 6, 1865. 11v10-tf

CHARLES BERNARD,

MANUFACTURER AND DEALER IN

Family Chartres Coffee,

AND SPICES OF ALL KINDS,

No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.

First Premium Awarded

BY THE MECHANICS' INSTITUTE,

FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to.

15v11-3m

OIL WELL BORING.

J. SEVENOAKS,
Contractor

For Well Boring and Erecting all kinds of Machinery connected therewith.

Having had extensive experience in boring for oil in Pennsylvania, Canada and elsewhere, I feel confident of being able to give entire satisfaction. Persons desirous of making contracts as above, or wishing information with regard to oil indications, etc., will please address me at the office of the "Mining and Scientific Press," San Francisco, or to my personal address, Box 1229 San Francisco. 2v11

LEHIGH COAL.

200 Tons Large Lump Lehigh Coal

Now on Hand.

I am also in constant receipt of

LEHIGH COAL,

And will be able to supply it always

At the Lowest Market Price.

JAMES R. DOYLE,
20v10-3m Pacific Coal Yard, 413 and 415 Pacific street.

THE JOHN BROWN HOMESTEAD.—Four lots on the west side of Main street, in the south end of Red Bluff, says the *Beacon*, and a dwelling worth about $500 is to be erected on the lots, to be completed in January. This will constitute "the John Brown Cottage," and will be the home of the widow and three children of "Old John Brown."

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, Mr. TURNER HAMILTON, at the Assembly Building, 106 South Tenth street, Philadelphia, Pa., where samp copies of our publications can always be found.

Traveling Agent.

MR. ROBERT LATTIMORE is now on a canvassing tour for the PRESS through Butte, Colusi, Tehama, Shasta, and Siskiyou counties, and we recommend him to the favorable consideration of our friends.

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— IN THE —

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Notices of Meetings, per square, one week	$1 00
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☞ *Ten lines of solid advertising type constitutes a square.* ☜

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One copy, one year, by mail, in advance	$5 00
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THE CIRCULATION of the PRESS, already extensive, is rapidly increasing, and substantial men who can profit by widely disseminating information of their business amongst the most intelligent, influential and industrial classes of the Pacific States and Territories will find no more effectual or economical medium for advertising.

DEWEY & CO., Proprietors.

Patent Agency and Job Printing Office, 505 Clay street, San Francisco. July 1 1865

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1864, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

Machinery.

Important to Miners.

NEW PATENT ROASTING PROCESS.

I AM NOW PREPARED TO OFFER TO THE MINING community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A Furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day.

MORE COMPLETELY AND CHEAPER

Than any other Process. All the Sulphur is saved, by being converted into Bisulphide of Carbon, which is a valuable product, and will pay nearly all expenses.

For particulars, apply to

J. MOSHEIMER,
26v11-3m 423 Washington street.

FOR SALE!
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Can be seen running at the San Francisco Pioneer Woolen Factory, Black Point. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

HENDY'S
IMPROVED BLOW-PIPE.

This Convenient Helpmeet

— TO THE —

ASSAYER, CHEMIST, DENTIST, JEWELLER, PROSPECTOR AND MILLMAN,

Can now be procured, at the Patentee's price, by sending your orders, by mail or otherwise, to the

Office of the Mining and Scientific Press.

This article was more fully mentioned in the PRESS of April 15th, 1865. Since that time, however, Mr. Hendy has made a further improvement by attaching a rubber hose between the mouth-piece and the pipe, enabling the blower to change his position without disturbing the direction or constant accuracy of the current on the object upon which it is turned. The main portion of the blow-pipe is made with a joint, at which a valve is placed, which is opened when the operator blows and closed immediately when he ceases. By this arrangement the little bag or bladder is readily filled at a single breath, and with very little exertion. When so filled, a continuous current of air is forced from the nozzle of the pipe by the mere contractive force of the gutta percha. This force is uniform until the air is very nearly exhausted. The current may be easily varied or entirely cut off by gently pressing the fingers upon the neck of the bladder above the nipple to which it is attached.

Price, Complete.....$5.00.
CALL AND EXAMINE SAMPLES.

Sent by mail, if desired. Address

DEWEY & CO.,
16v10-tf No 505 Clay street, San Francisco

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; no trace of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD'S
Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find in their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6dt

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,
Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. [Illustrated in the Mining and Scientific Press, April 9th, 1864.] HEPBURN & PETERSON.
nov8 3m*

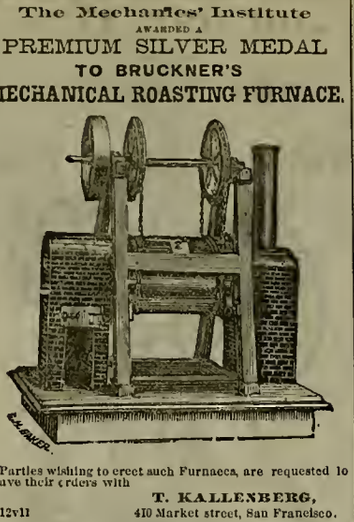
HUNT'S PATENT
Circular Sweep Horse-Powers,

For running Churns, Washing Machines, Grindstones, pumping water, sawing wood, and other light machinery. Price, $100, at the Factory.

HUNT'S PATENT SELF-REGULATING TREAD HORSE-POWER is superior to any machine of the kind in the market. Price, with Governor, all complete to set to work, at the Factory, $300. Manufactured by

E. O. HUNT,
7v10 28 Second street, San Francisco.

The Mechanics' Institute
AWARDED A
PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces are requested to leave their orders with

T. KALLENBERG,
12v11 410 Market street, San Francisco.

HUNT'S
IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person; and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN
HORSE POWER
For Sawing Wood.

ALSO, THE

Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.

☞ For further Particulars see small circulars. ☜

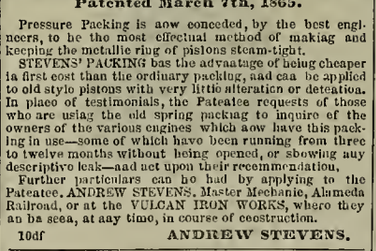
E. O. HUNT,
No. 28 Second Street, and 108 & 112 Jessie Street, San Francisco. 26-3m

DENIS WHELAN,
Fashionable Boot Maker

REPAIRING NEATLY DONE, AT SHORT NOTICE.

No. 17 Fourth Street,
Near Market street, San Francisco.
15v10-1m*

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df **ANDREW STEVENS.**

SALMON'S
PROPELLOR AMALGAMATOR
— AND —
Challenge Settler

Has been in use and thoroughly tested, both in California and Nevada, with entire satisfaction to all parties concerned. These Machines are

Made entirely different from any others,

And with the same power will grind, amalgamate, settle and separate, more gold and silver ore than any others now in use. Manufactured at the SAN FRANCISCO FOUNDRY, where Machines can be seen in operation. Address

9v11 **J. & W. C. SALMON.**

McCOMB'S
CUMULATIVE POWER PRESS
AND
ARROW TIE.

E. C McCOMB, Agent.

No. 1 Government House, cor. Sansome and Washington sts.
23v10 3m

STOW'S
PATENT CHAMBER DRILL.

The greatest Labor-saving Machine ever invented for Quartz Mining. By using this Drill in shafts, tunnels, and all other rock blasting, three-fourths of the labor and over one-half of the powder will be saved. The Drill makes a chamber directly at the bottom of the hole, at any depth you wish, six times the area of the original hole, in all kinds of rock, in less time than a man can drill a 1½ hole two inches deep. Regarding the tamping, it will be impossible to have a premature blast.

AT THE STATE FAIR held in Sacramento, September, 1865, a Committee, after examining both the Lincoln's and Stow's Chamber Drills, reported as follows:

We, the undersigned, Committee on Mining Tools, do award to Henry M. Stow, of San Francisco, the FIRST PREMIUM for the best Chamber Drill for blasting rock, for the following reasons:

1st. For simplicity of construction.
2d. For durability of drill;
3d. For strength of drill.

The above Drills will be sent to any part of the State for $130, with one set of Cutters or Chisels that will chamber from 75 to 150 holes. Extra Chisels furnished at $2 50 per set.

The Drill may be seen at Mr. BUFFINGTON'S Office, No. 9 Government Block, corner Sansome and Washington streets, and at No. 511 Market street.

Drills will be delivered to any part of this State free of expense to the purchaser. Any information desired, or orders for Drills, address

STOW & COLLINS,
San Francisco

Oil Wells! Oil Wells!!

I received at the last STATE FAIR a special Premium for the best Expanding Drill for boring oil wells. The above Drill will bore the hole from ¾ inch to 2 inches larger than the inside of the pipe or tubing of the well, if desired, making the bore perfectly straight and round. The Drill can be attached to and work with any common drill at an expense of from $25 to $50. I will furnish all machinery for boring, or will take contracts for boring wells, and furnish steam engines and all tools required. Address,

HENRY M. STOW,
14v11 San Francisco.

WATER WHEELS!

Equal to the Best Overshot Wheel

POWER PLEDGED

IN EXISTENCE.

LEFFEL'S
AMERICAN DOUBLE TURBINE

Is now manufactured by the Vulcan Iron Works Company, in this city, and orders for the same can be filled immediately. We have a large supply of the different sizes, from 10 inches to 50½. That we may know the proper sized Wheel you require, measure your water in the following way: Take the width of the stream, the average depth, and the distance it flows in a minute.

All the Wheels already in use give universal satisfaction. For particulars send for a Circular.

This Wheel is especially adapted to mining purposes. It is light, and can be easily packed into the mountains. Wheels weighing from 100 to 300 pounds, will yield from 10 to 40 horse-power under a head of 25 or 30 feet. They are the cheapest wheel to set up known, as they are so arranged as to produce the greatest power possible from the water used.

Come and see them, or send for a Circular to

LEFFEL & MYERS,
At Vulcan Iron Works, office 137 and 139 First street, San Francisco. 4v11tf

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setters made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setters for themselves, at the **PACIFIC FOUNDRY,**
1v1 San Francisco.

MITCHELL'S
COMBINED
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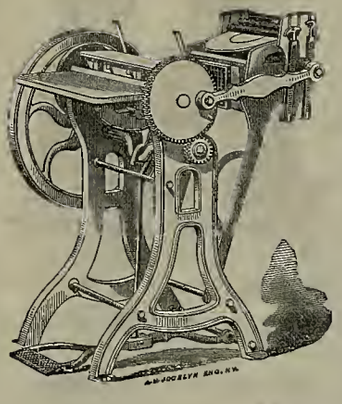

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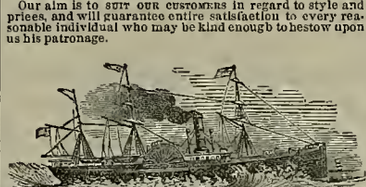

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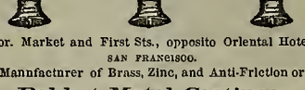

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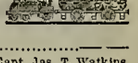

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SAN FRANCISCO, SATURDAY, JANUARY 13, 1866.

VOLUME XII. Number 2.

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Patera's Process on Silver Ores in Lower California.

EDITORS MINING AND SCIENTIFIC PRESS:—In the vicinity of San Antonio, Lower California, there are many silver mines producing ores, much of which is shipped to Europe, and a portion treated on the spot, by the barrel process. The general character of the ores is marked by a considerable amount of antimony. Mr. Ernst, with some others, concluded to try the Patera process, and made an experiment on nine hundred pounds of ore, containing somewhat above one hundred dollars per ton. They claim to have obtained ninety-one per cent of the silver assay, and therefore commenced to put up the necessary tubs without delay. Mr. Beseler, who came back upon the last steamer, informs me that the company is already in possession of four stamps, steam power, and two large roasting furnaces; and that they calculate to work four tons of custom ore per day, charging thirty-five dollars per ton, and agreeing to extract the silver within ten per cent. of the fire assay. According to those charges they can treat profitably all ores yielding forty dollars and upward.

The choice between the precipitation processes was doubtless very reasonable; as the use of hypo-sulphits of soda is far preferable to the salt solution, as a solvent agent; for while there are required sixty-eight parts of salt to dissolve one part of chloride of silver, only two parts of hypo sulphite of soda will be required to dissolve the like amount. Another advantage is the cold and diluted condition in which the hypo-sulphite solvent can be used; also, the continual re-production of the solvent during the process; so that a full supply of the hypo-sulphite is required only for the start.

The very richest ore may be treated by this process without difficulty; requiring, however, a proper roasting. Lead, to the amount of twelve or fifteen per cent., is not injurious. Patera's process is extensively used in Hungary, Germany, etc. An establishment employing that process is also in operation in Australia. Dr. Lanszweert, in an article lately published in the MINING AND SCIENTIFIC PRESS, very properly calls the attention of those concerned in the reduction of silver on the Pacific coast to that process; especially where the roasting is a *conditio sine qua non*; for instance, at Reese River, Humboldt, etc. By all means, this process deserves more attention than the use of sodium amalgam, which, as I showed by experiments some time ago, and described in the columns of the MINING AND SCIENTIFIC PRESS of November 18, 1865, is decomposed by the iron of the pan in a very short time—a fact easily ascertained by any one who wishes to discover for himself whether sodium amalgam is of any use in iron pans. Statements as to obtaining eighty-five per cent. by application of sodium, if the ore be of a nature that only fifty-five per cent. can be extracted without sodium, in iron pans, are simply "untrue," unless a sufficient amount of sodium is used to render the cost of the extraction of the silver much more than its value.

G. KUSTEL.

Miners in Excelsior Moving---State Miners' Convention.

Preamble and resolution submitted by a committee appointed at a "primary miners' meeting," held at Denton's Saloon, A street, Summit City, January 5, 1866:

WHEREAS, it has been definitely determined that a State Miners' Convention has been called, and is to meet at Sacramento, Cal., on the 17th inst.; and, whereas, Excelsior Mining District is entitled to a representation, and should be represented in said State Miners' Convention; and, whereas, two irregular miners' meetings, without general notice, have been held in said Excelsior Mining District to appoint delegates to said State Miners' Convention, and two sets of delegates have already been appointed.

Now, therefore, to prevent confusion and wrong; and that the miners generally of said Excelsior District may exercise a choice in the selection of said delegates, this committee recommend that the miners of the following precincts, viz.—1st. Wightman's Camp; 2d. Enterprise Camp; 3d. Summit City; 4th. Old Man Mountain; 5th. Bloody Run; and, 6th. Excelsior Camp—be requested to meet together on Sunday evening next, at two o'clock, at Denton's Saloon, in Summit City, on A street, to select and elect delegates to represent Excelsior District in said State Miners' Convention; and it is hereby further recommended and resolved by the committee, that the Chairman of this meeting cause notice of such proposed meeting to be given in the various mining precincts as soon as practicable, so that a general attendance may be secured,

TOM COX, Chairman.

Preamble and resolutions were adopted, and the Chairman of the primary meeting, J. E. Brokaw, caused notice to issue to the miners of the several Camps.

Pursuant to previous call and notice, the miners of Excelsior Mining District, on the 7th day of January, 1866, at the saloon of A. Denton, on A street, in Summit City, Nevada county, Cal., at two o'clock P. M., met in Mass Convention and elected the following named delegates to represent Excelsior Mining District in the State Miners' Convention aforesaid, viz: J. A. Brumsey, Tom Cox, —— Fitzgerald, A. K. Stewart and J. H. Tennant.

The election having been made unanimous, it was declared as the sense of the meeting that the miners of Excelsior Mining District were opposed to governmental interference with the mines, and believed that their control should be left, as heretofore, to the custome, usages and regulations of the mining district in which they are situated.

After a vote that the proceedings herein be forwarded to the Sacramento *Union* and MINING AND SCIENTIFIC PRESS, with a request that the same be published, the miners present came forward and signed their names, endorsing all action taken, and the meeting adjourned *sine die*.

J. E. BROKAW, Chairman.
G. ZACHARIAH, Secretary.

BANK PROFITS.—It is said that there are unclaimed deposits, to the amount of $40,000,000, in the Savings Banks of New York. These millions have been accumulating for upwards of a century, and are now regarded as part of the capital stock of the banks. A pretty handsome profit over and above the ordinary profits of business.

SOUTHERN TRADE.—Twenty-three ocean steamships recently cleared at New York in one day, of which only one was for Europe, nineteen were for various Southern ports, and the remaining three for various Eastern ports.

Miners' Convention---Election of Delegates from San Francisco.

Pursuant to notice, a meeting of miners was called to order at No. 240 Montgomery street, on the 12th of January, 1866, at 7½ o'clock P. M., by J. W. Pierson, Esq., and upon motion, Hon. W. B. May was chosen Chairman, and J. B. Whitcomb, Esq., and M. G. Elmore were chosen Secretaries.

Upon motion of D. S. Cutter, the following order of business was adopted:

1st. Permanent Organization; 2d. Election of Delegates to the State Convention; 3d. Resolutions and general remarks; 4th. Appointing Committees, etc., etc.

Upon motion of C. F. Wood, the Chairman was authorized to appoint a committee of three to nominate delegates to the Convention, whereupon the Chairman appointed Messrs. C. F. Wood, D. S. Cutter and J. W. Pierson.

The Committee, upon consultation, reported the following names, which were adopted and duly elected:

LIST OF DELEGATES.

A. J. Snyder,	Jos. W. Low,
J. M. Pierson,	John Hemsley,
Geo. Hearst,	D. S. Cutter,
J. W. Gushwaller,	Col. H. S. Fitch,
Wm. T. Foye,	Wm. Hollis,
Harvey S. Brown,	W. B. Ewer,
Daniel H. Mitchell,	William B. May,
C. F. Wood,	A. T. Dewey,
G. Kustel,	John S. Henning,
G. Owens,	E. T. Stein,
E. D. Waters,	Leigh Hurnet,
Wm. M. Lent,	A. Hemme,
W. P. Pool,	B. F. Sherwood,
Lloyd Tevis,	J. B. Owens,
Wm. Thompson, Jr.,	A. Hayward,
J. A. Mars.	

Col. H. S. Fitch offered the following resolution, which was adopted:

Resolved, That the committee already appointed for the selection of names for delegates to the Miners' Convention be authorized severally to report additional names, such as may be fit and proper, at any time between this date and Tuesday next.

The following resolution was offered by D. S. Cutter, which was adopted:

Resolved, That this meeting indorse the California Mining Bureau Association, now organized in San Francisco, and recommend it to the favorable consideration of the State Convention to be held at Sacramento on the 17th inst.

Upon motion of Harvey S. Brown, the delegates elect were requested to hold a meeting at room 7, No. 240 Montgomery street, on Saturday, the 13th, at 3 o'clock P. M., and at 7 P. M., on Monday, the 15th.

The Chairman then notified the delegation that upon calling on J. B. Whitcomb, Esq., they would be supplied with credentials.

There being no further business, the meeting adjourned *sine die*.

J. B. WHITCOMB, Secretary.

DEEP ARTESIAN WELL.—Wm. M. Lent is sinking, at Santa Clara, an artesian well, which is now down more than seven hundred feet, and has not struck water yet. At San Jose, only three miles distant, water is abundant three hundred feet from the surface.

IT has been calculated that iron wire conducted electricity 400,000,000 times better than fresh water, and 4,000,000 times better than sea water.

A NEVADA MINING BILL.

The following Bill was introduced into the Nevada Legislature on the 8th instant, by Hon. Mr. Glover, of Storey county:

An Act relating to Incorporated Mining Companies and for the Protection of Stockholders in the same.

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

SECTION 1. It shall be the duty of the Superintendent, Secretary, or managing agent having charge and control of the books and business of any company, incorporated for the purpose of working a mine located within this State, to publish quarterly or cause to be published in one daily newspaper of the county in which such mine is located, and if there be none in that county, then in one published in the county nearest to the location of the mine, a statement of the affairs of the company, including its liabilities and assets, the proceeds and disbursements of the preceding quarter, for what such disbursements were made and liabilities contracted, and the present condition of the mine. Such statement to be subscribed and sworn to before some officer empowered by law to administer oaths in the said county,

SEC. 2. Any Superintendent, Secretary or managing agent whose duty it shall be to make, subscribe, swear to and publish the statement as provided in the foregoing section, who shall willfully and designedly make oath to and publish a false statement of the affairs of the company for which such statement is made, shall be deemed guilty of perjury and liable to the pains and penalties prescribed by law for the same.

SEC. 3. Any stockholder upon presentation to the Superintendent or other person having charge and control of the mine of any incorporated mining company, of a certificate of the stock of said company issued in his own name, may demand admittance to the mine and works of the company, and the Superintendent or other person having charge and control thereof shall admit such stockholder to any and all parts of the same.

PLUMBAGO, which has heretofore ruled quite high in the markets of the world, for the reason that a good quality of that mineral has heretofore been found in only a few localities on the globe, is now being found in large quantities in various parts of the earth. Large discoveries of this valuable mineral are stated to have been made in the inland districts of the Cape of Good Hope. A sample of eight bags has already been shipped to England, in order to test its value in the home market. It is found in various parts of the Eastern States; and a new and extensive deposit is said to have been recently discovered in the town of Richmond, Maine. Reports pronounce the mine one of the best in the United States. It is found in quite a number of localities in California. Large quantities, and of a very good quality, are found within eight miles of a good shipping point in Los Angeles county. It occurs in great abundance in Mariposa county where a new process has recently been adopted for its purification, which it is believed will prove a valuable discovery, and still further reduce its commercial value.

AN OIL WELL was recently opened on the Terry Farm, in West Virginia, which threw out large quantities of water and gas, mixed with a small quantity of oil, to a hight of *seventy feet!* The discharge was accompanied with a roaring like the exhaust pipe of a steamboat.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE AGE OF GOLD-BEARING ROCKS.

BY PROFESSOR ROWLANDSON, F. G. S. L.

NO. X.

[CONTINUED FROM PAGE 2.]

A POINT ON WHICH THE WRITER AND SIR RODERICK MURCHISON AGREE.

The first thing which led me to consider it possible or probable that gold might be hereafter found in veins inclosed by secondary or even tertiary strata, was a conviction with which I became impressed at an early period of my investigations, that metallic veins, and auriferous ores in particular, were, geologically speaking, of very recent date. Writing of the Ural Mountains, Sir Roderick Murchison corroborates this view, respecting which he states:

"Before we quit the consideration of the Ural Mountains, the reader may be reminded that, throughout the length of 500 miles, the rocks contain the precious metal at wide intervals, and in limited patches only. Having indicated the geological period of the superficial gold drift, let me also here advert to a suggestion of my own concerning the era at which the rocks are impregnated. It has been already stated, that no secondary formation contains veinstones charged with any notable quantity of gold, and that when the metal is found *in situ*, it is chiefly in metamorphosed strata of Silurian age, occasionally in Devonian, and rarely Carboniferous, or in the associated eruptive rocks. Now, it would seem that in the Ural Mountains the gold must have been segregated in separate masses in these formations at a comparatively modern geological period. In the first place, the western flank of the Ural chain offers strong evidence that the process had not been effected when the Permian deposits were completed. During that period, vast heaps of pebbles and sand, all derived from a pre-existing Ural chain (the older stratified rocks of which had even then undergone much change), were spread out over the lower country on the west. Together with fragments of all the rocks, sedimentary or igneous, which are known in the chain, specimens of magnetic iron and copper ore, large quantities of which abound in the range, are not uncommon in this Permian deposit, but nowhere does it contain visible traces of gold or platinum. Had those noble metals then existed in the Ural Mountains, in the segregated lumps and strings which now prevail, many remnants of them must have been washed down together with the other rocks and minerals, and being indestructible, must have formed part of the old Permian conglomerates. On the contrary, when the much more modern debacles that destroyed the great animals, and heaped up the piles of gravel just described, proceeded from this chain, then the debris became largely auriferous. It is manifest, therefore, that the rocks are chiefly charged with gold—*i. e.* the chief lumps and strings of it were run together—during the intervening time.

What then was probably the geological period when these rich auriferous accumulations in the Uralian rocks took place? We cannot believe that it occurred shortly after the Permian era, nor even when any of the secondary rocks were forming, since no golden debris is found even in any of the older tertiary grits and sands which occur on the Siberian flank of the chain. If, then, the mammoth drift be the oldest mass of detritus in which the gold of this region occurs abundantly, not only in the Ural, but in other parts of the world, we are led to believe that this noble metal, though for the most part originally deposited in, or diffused through, the mass of the ancient Silurian sedimentary deposits, was only brought together into rich veins and separate lumps and strings at a comparatively recent period,—*i. e.* a short time (in geological language) before the epoch during which powerful and widely-extended denudations took place, and during which the large extinct mammalia perished.*

The association of the remains of extinct quadrupeds in the auriferous drift of the Urals is paralleled in California by the existence of similar remains being found in her gold placers, and under circumstances that indicate a similar period and origin for the accumulation of the auriferous drift on the Pacific coast.

In other places Sir Roderick alludes to a suggestion made by Dr. Percy, that gold might have been deposited in veins from solution, and also to the theory of himself and others respecting the meridional direction of auriferous ranges and veins. With regard to these points, I have only space to make a very few brief remarks, viz., that occasionally there may be found in gold mines evidences where there can scarcely be a doubt admitted, that gold has been deposited sometimes as crystals, sometimes as flakes, occasionally as moss-gold from solution; but in all such cases evidences of the most indisputable character accompany these instances, that the solution was formed through the agency of decomposing minerals—usually sulphides, selenides, tellurides, etc., etc., of iron, which originally accompanied and inclosed the gold.*

With regard to the meridional direction of auriferous ranges or veins, though frequently occurring, such is not invariably the case; for instance in California, from Mariposa to Plumas and Shasta counties, covering at least ten thousand square miles of central California, in which the largest auriferous quartz veins are found in this State, as also the richest and most extensive placers, the chief gold quartz veins usually have a direction slightly north of west and south of east.

A SECOND POINT OF AGREEMENT.

Without laying any particular stress upon the subject, Sir Roderick Murchison does not fail to remark the constant association of igneous rocks with gold veins. The same association of plutonic rocks may also be traced in connection with silver, copper, and lead veins, though not probably so close a one. I only allude to the facts last described, in order to draw attention to them—to explain the reason would fill a volume. Sir Roderick remarks: "Few chains offer more contrasting outlines than are seen upon the European and Asiatic flanks of the Ural. On the former the limestones and other stratified rocks are indeed contorted, fractured, and partially changed, whilst in the center, as on the eastern slope, the masses consist everywhere either of highly altered and crystalline silurian strata, or of the *eruptive rocks* which pierce *them*. *There* only, and *particularly* where the schists are traversed by vein-stones of quartz or cut by dykes of igneous rocks, has gold been imparted in any quantity to the slaty, talcose, and chloritic strata." In Russia and the Ural Mountains, vol. 1, page 473, Sir Roderick observes: "Whether, therefore, we judge from the total absence of auriferous matter in the ancient (Permian) conglomerates on the west, and in the tertiary grits on the east, or from the absolute materials in the whole series of regenerated deposits, we conclude that the chain became chiefly auriferous during the most recent disturbances by which it was effected, and that this took place when its highest peaks were thrown up, when the present water-shed was established, and *when the syenitic granite* and other comparatively *recent igneous rocks* were erupted along its eastern edges." Again, in his third edition of "Siluria," it is stated: "No country furnishes a clearer example than Russia of the dependence of gold on certain geological and mineral relations. Her European territories are, as has been stated, chiefly occupied by slightly solidified primeval deposits. Under those conditions, and with a total absence of any crystalline rocks, whether intrusive or of sedimentary and metamorphic character, not a particle of gold has been discovered in them, over an area larger than the rest of Europe. But when the same formations have been thrown up into inclined and broken positions in the Ural chain, and have then been pierced by porphyry, greenstone, syenite, and granite, in association with huge masses of serpentine,† the very same deposits, so soft in European Russia, have been hardened, crystallized, veined, and rendered highly metalliferous; some even of the igneous mass being also occasionally metalliferous."

PLUTONIC ROCKS USUALLY ACCOMPANIED BY METALLIFEROUS VEINS.

So general is the opinion held in Cornwall of the truth embodied in the above sub-heading, that it has passed into a proverb that no mine can be found worth working that is twenty miles distant from granite, a fact that will hold good in more parts of the world than Cornwall and Devonshire.

There are other igneous rocks, however, besides granite, such as hornblend, and the varieties of trap, known as greenstone, etc., whose proximity to mineral veins also indicate a common cause of origin and association, which source of causation the writer ventures to assert, and to predict, that future inquiries and facts will establish the assertion that such origin and association will be found to arise chiefly from the presence of and disturbances occurring in connection with a molten center. In no other manner can so many of the primary and secondary phenomena, observed in ordinary mineral veins, as found associated with gold, silver, copper, lead, antimony, the blendiferous form of zinc, etc., be accounted for in the present condition of science. A molten center being admitted, an explanation of ordinary mining phenomena becomes by no means difficult.‡ Tin and cinnibar, as ordinarily found, are the only metallic compounds wrought in any quantity which, perhaps, could be adduced as opposed to this theory. It may, however, possibly be established hereafter that the Almaden cinnabar mines, in the Spanish Peninsula, are situated in a later formation than the Palæzoic; in such an event they would only assimilate with the position of other quicksilver mines in different parts of the world,§ which are all, with the possible exception alluded to, found in rocks of modern geological age. In the event of this not being found to be the case, it would not form an inseparable bar to the theory of a molten center.

With regard to tin, Dr. C. T. Jackson, on the occasion of a conversation which I held with him, while on his recent visit to San Francisco, referred me to the theory of Dobree—namely, that it was originally erupted in combination with fluorine. Perhaps this may be the case either wholly or in part. I had, however, been led to infer, from the association of Schorlaceous minerals ‖ in rocks producing tin ore, that boracic acid had a considerable influence in the dissemination of this metal. Future discoveries may, probably, reconcile all discrepancies as respects the laws which regulated the distribution of tin and also that of mercury.

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*In many instances gold is, I know, associated in the same veinstone with other ores—such as silver, or argentiferous galena; and with various ores of copper and iron—magnetic iron being, indeed, a very frequent accompaniment; whilst the association with tin stone has before been alluded to. Such occurrences do not invalidate, but strengthen, the view derived from the phenomena in the Ural Mountains; for, as copper and iron ores are frequently found in old conglomerates or pebble beds of secondary age, and lumps of gold have never been detected in them, I see no means (explain the phenomena as we may) of evading the inference, that no great quantity of gold ore was formed (certainly not in the Ural Mountains) until the comparatively recent epoch indicated in the text. In the work "Russia and the Ural Mountains," vol. 1, p. 473, the inference is thus stated:—"Whether, therefore, we judge from the total absence of auriferous matter in the ancient (Permian) conglomerates on the west, and in the tertiary grits on the east, or from the absolute materials in the whole series of regenerated deposits, we conclude that the chain became (chiefly) auriferous during the most recent disturbances by which it was affected, and that this took place when its highest peaks were thrown up, when the present watershed was established, and when the syenitic granite and other comparatively recent igneous rocks were erupted along its eastern edges."

The reader who wishes to have fuller information on the subject of Uralian and Siberian gold, must consult Humboldt's "Asie Centrale;" "Reise nach dem Ural," etc., by Humboldt, Rose, and Ehrenberg, with the valuable mineral description of M. Gustaf Rose; various memoirs by Helmersen and Hoffman in the "Annuaire des Mines de Russie;" and Adolf Erman (Reise um die Erde), as well as an account of the general diffusion of gold and a valuable gold map of the world by that author.

*I have frequently referred to the auriferous veins found in limestone in Tuolumne and Calaveras counties, as instances in proof that the gold in such cases could not be derived by infiltration from the inclosing rocks. Sir Roderick Murchison, on report, however, alludes to gold being found disseminated in limestone rocks in Australia. In the Ural, however, he states that the inclosing slate rock does not contain gold, consequently that metal could not have been derived therefrom.

†This part of the description of the Urals might have been written for the purpose of describing the lithology of both flanks of the Sierra Nevada wherever that range is metalliferous. Respecting the serpentine rocks, I am inclined to suspect that in all cases these are the result of the metamorphism of augitic and hornblendic rocks by aqueous agencies.

‡The reader will readily comprehend that the above remark applies only to certain metals, and metallic compounds, such as those commonly found in the form of sulphides, or associated therewith. Clay, iron ore, oxide of zinc, manganese, etc., etc., frequently have had an aqueous origin, though in many cases, as instances whereof, oxide and carbonate of zinc may be instanced, as also malachite, the primary source of the metal, was most probably a sulphide.

§The quicksilver mines of New Almaden, California, are situate in rocks probably not older than the eocene.

‖Schorl, in Cornwall, is termed "The Mother of Tin."

New Method of Making Shoes.—A new style of shoes is now in this city. The invention is simple. The upper part of the boot is cut out in almost ordinary fashion by a regular shoemaker. The sole and heel are made of hard maple wood, and are joined by a shank of sole leather, which gives all needed elasticity. The uppers are fastened to the sole by a thin band of iron, which encircles the rim of the sole, and fastens sole and upper together in a manner more effectual than any sewing can do. When put together the shoe presents a handsome appearance, and is as light as a leather shoe of corresponding size. The heels are comfortably hollowed out on the upper side, and the soles have the proper curve to insure easy walking. The invention (made by a Canadian, named Lefanier, of Canada,) is the property of Mr. Wm. Robinson, (patentee,) of this city. The boots and shoes, under the patent are made by an incorporated company, having a working capital of $260,000, and a manufactory in Court street, Brooklyn, capable of turning out 100 pairs per day at present. *N. Y. Business Mirror.*

James Linen, a California poet, has been treated with "distinguished consideration" by the poets of New York. They gave him a grand dinner at the Astor House, at which the venerable Wm. Cullen Bryant presided.

[Written for the Mining and Scientific Press.]

Age and Formation of Metal-Bearing Rock.

In a lecture delivered by Dr. C. T. Jackson, at the Lincoln School-house, San Francisco, he is reported, in the Mining and Scientific Press of September 23, 1865, to have expressed an opinion that the molten interior of the earth must be of a metallic nature. This assertion, coming from one who has such a reputation as a geologist, tends to confirm the impression, in my mind at least, that the geology of the metal-bearing lode has never been written. Every intelligent miner in California knows that the exponents of the science of geology have done very little to advance the interests of mining for the precious metals, and they have looked to the geologist in vain to answer difficult questions. Perhaps, however, the learned Doctor will inform us what kinds of metal compose the molten interior of the earth. The rocks, though, indicate that all the metals known to men are, probably, within thirty-five or forty miles of the surface, and that many miles in depth of the earth's crust has solidified, since the intrusive and eruptive action ceased to bring them to the surface.

We will now pass on to the consideration of the order of the formation of the metal-bearing rocks. When the heat of the earth was so great as to render it molten at the surface, potassium, with a specific gravity of 865, and sodium with a specific gravity of 972, would, undoubtedly, have been in combination with the surface rock; and other things being equal, the other alkaline metals must also have been associated with the molten rock at and near the surface. We find gold, specific gravity 19.3; associated with quartz, specific gravity 2.65. How could bodies, differing so greatly in density, float together in a molten condition? By a wise provision of Nature in the formation of the earth for the habitation of man, the metals were kept near the surface; for metals and rocks do not expand equally with an increase of temperature. It is good philosophy to assume that when the whole earth was in a molten condition, rocks and metals would be arranged according to their specific gravity, subject, however, to such modifications as an increased temperature will produce.

Now, let us take the testimony of the rocks. The primary rocks are believed to rest upon granite, for two reasons: Firstly, they were evidently formed by the degradation, solution, and deposition of the debris of granite; and, second, all intrusive and volcanic rocks are granitic, up to the silurian or mountain limestone period.

Before water rested upon the superheated earth, the elements that are gaseous at an elevated temperature, such as chlorine, fluorine, carbon, etc., existed in the atmosphere as acids. Fancy the effect of a shower-bath of water, strongly impregnated with carbonic, hydrochloric, and hydrofluoric acids, upon red-hot rock, into the compositions of which the oxides of sodium, calcium, and other alkaline metals entered largely.

Granite is the natural matrix of the alkaline metals, and, owing to its friable condition, the elevated temperature and the powerful affinity of carbonic and hydrochloric acids for the alkalies, the formation of the primary rocks must have proceeded with comparatively great rapidity. When quartz is fused with an excess of soda it becomes soluble in water. It is probable that the beds of quartz in the gneiss system were formed by the solidification of dissolved silica; and the presence of so large an amount in solution would also tend to render the earlier stratified rocks highly crystalline in texture. (It is fashionable with geologists to prefix the adjective metamorphic to this class of rocks, assuming that the primary rocks were rendered crystalline by the action of heat.) Limestone occurs in the gneiss system, and was probably formed by the carbonic acid gas of the atmosphere, combining with oxide of calcium in solution; the product being precipitated as an insoluble compound.

Now, it is quite certain that the primary rocks never could have been subjected to a degree of heat sufficient to fuse, and thus ren-

der thom crystullino; otherwise, the carbonic acid uf the limestone would have heen driven off or volatilized.

The volume of water must have greatly increased during the period of the formation of the primary rocks, by the combination of hydrochloric acid with soda; thus, Na O+H Cl=Na Cl+H O., the latter elements uniting to form water. Chlorine, during this period, entered into the formation of chloritic slate.

Before water rested upon the earth, the surface-rock was the matrix of the alkaline metals, and the period of the formation of the primary rocks may truly be said to be the alkaline age.

We will now pass on to that period in the earth's history when the nohler metals, those having less affinity for oxygen, formed a distinctive feature of the intrusive and eruptive rocks. The crust of the earth now seems to have cooled down to the stratum from which the useful metals were derived. The period in which the intrusive and eruptive rocks brought the useful metals to the surface seems to have begun with the old red Sandstone period, and to have ended with the Liassic. Metal-hearing veins will he found intersecting such portions of tho earth's crust as were upheaved during this period.

Iron enters into the stratified rocks, in giving color to the old red sandstone, and it occurs in extensive beds of ore in the coal formation, from which the iron of commerce is mostly obtained—the carboniferous era being also the iron age. The iron which enters so largely into the formations of this era must have arrived at the surface as sulphuret of iron, which, decomposing, produced sulphate of iron. This soluble compound being subject to further decomposition, the sulphuric acid united with the alkalies, forming gypsum, heavy spar, celestine, etc., leaving the iron as an oxide, or free to enter into combination with carbon.

As the crust of the earth cooled to a greater depth, the stratum containing these metals that combine with the largest proportion of sulphur, seems to have been reached first. Thus, iron combines with 53.3 parts of sulphur in 100, and is found abundantly in the carboniferous sulphur as a carbonate. Silver combines with only 12.96 parts of sulphur in 100, and the silver-bearing stratum was evidently not reached until a period more recent than the saliferous system. Now, if silver and copper-hearing veins are found intersecting formations as recent as the saliferous period or liassic group, it is evident that they must intersect all earlier formations. The following quotations will show that metallic veins are found intersecting all formations from gneiss up to the liassic group:

"In California gold ores are found in veins intersecting gneiss, mica, and clay slates. In Cumberland, England, galena and other lead ores, blende, copper ores, calamine, affording largely zinc and three-fifths of the lead of Great Britain, occur in carboniferous or mountain limestone. There is also a rich vein of calamine, blende, and galena in Somersetshire, occurring in magnesian limestone. At Landsburg, in the Bavarian or upper Rhine (Palatinate), there occurs cinnabar, native mercury, horn quicksilver, gray copper ore, and copper pyrites, in the coal formation. Northwest of Saxony, at Eisliben, there occurs gray copper ore, somewhat argentiferous, and variegated copper ore, affording copper, in a nearly bituminous shist, more recent than the coal formation. In Connecticut and New Jersey copper ore is found in red sandstone, which is shown by Redfield, Rogers, and Hall, to be as recent as the Liassic period. Prof. Dana says the formation of gold-bearing quartz along our Eastern coasts appear to have been after the coal period."

The eruptive and volcanic rocks of this era must also have been metal-bearing, as the immense leads of iron ore in the carboniferous system, and the numerous quantities of gold-bearing quartz, gravel, and free gold in the placers of California indicate. An immense body of eruptive gold-hearing quartz still remains at Boulder Hill, Monitor District, California. The hill is about three-fourths of a mile long, and averages half a mile in width. It is completely covered with gold-bearing quartz in the shape of boulders, two of which are estimated to weigh seven hundred tons. Another example is found in Plumas county, the side of a mountain being covered with gold-hearing quartz. Blow-outs (as miners term them) of gold-bearing quartz are frequently to be met with on the western slope of the Sierra Nevada—some of them acres in extent, and some covering hut a few square rods.

From the period of the Liassic group up to the latest tertiary accumulations, the intrusive and eruptive rocks seem to be non-metallic, if we except alluminum, which is a metal of the earth proper. Trap-dykes intersect the latest tertiary formation, and of course they must intersect all underlying formations. Immense beds of hasaltic rock are found overlying tertiary accumulations of gravel, clay, etc., and in some instances gold-hearing sands. These later igneous rocks are unlike the rocks of earlier periods, in that they appear to he more nearly indestructible. The trapean and basaltic rock, unlike the metal-bearing rocks, appear to resist the action of heat and moisture, and preserve their sharp outlines through ages of exposure, and only yield to mechanical action.

If the molten interior of the earth were of a metallic nature, what marvelous mineral wealth ought the more recent intrusive and eruptive rocks to disclose. Yet, it is a notorious fact that they are destitute of metals, and are the most refractory of all rocks. The presence of metal in rocks tends to render it fusible, friable, and soluble. The earlier granitic rocks, containing the alkaline metals, were possessed of this character in the most remarkable degree, and gold-bearing quartz, free from sulphurets, is probably the least destructible of all the metal-bearing rocks.

The earlier granitic rocks were soluble to such an extent as to afford the cement, by which the debris of subsequent ages has been converted into solid rock. It is by this means that the story of the invertebrate life of the silurian, the ichthyic life of the old red sandstone, the wonderfully gigantic and abundant vegetation of the carboniferous, the monstrous reptile of the oolitic and cretaceous, and the gigantic mammals of the eocene and miocene periods, is traced on pages of stone in the great volume of Nature.

The foregoing facts seem to warrant the conclusion that the intrusive and eruptive rock ceased to be metal-bearing during the Liassic period; the crust of the earth having become solid by loss of heat to a greater depth than the lowest metal-bearing stratum.

There are two methods by which the order of the formation of all igneous rocks may be determined. First, it is a well-known fact that rocks and metals do not expand equally with an increase of temperature. When the earth was in a molten condition, from center to circumference, matter must have been arranged, stratum above stratum, according to its specific gravity, subject, however, to such modification as an increased temperature will produce. The mechanical force arising from the crust of the earth adapting itself to the over-shrinking mass it contains, produced fissures that filled with molten matter—the matter in each fissure being identical in composition with the stratum of which it is a part or chimney. As the earth continued to cool, at each successive upheaval, the molten matter to fill such fissures, would come from a greater depth. By carefully ascertaining the exact composition, specific gravity, and ratio of expansion at an increased temperature of such intrusive matter, the age of all intrusive rocks may be determined, and by the same means the order of the formation of the igneous rocks may also he determined to the entire thickness of the earth's crust. Second, ascertain in how late a formation gold-bearing quartz (for instance) can be found. If it cannot be found intersecting the rocks of a later period than the Liassic group, it would be fair to infer that the crust of the earth had solidified to a greater depth than the gold-hearing stratum. And so of all other intrusive rocks, the latest stratified formation in which any given ore or rock can be found, indicating the depth of the stratum from which it was derived.

Trap-dykes are found intersecting all stratified formations up to the tertiary period; hence, we must infer that they are of later formation than the metal-bearing veins, and that they indicate the character of the earth's crust below the metal-bearing stratum. The later intrusive and eruptive rocks being non-metallic, indicate that the molten interior of the earth is also non-metallic. F. A. H.

Shipments of Copper Ore from the Union Mine During the Year 1865.—From March 7th to April 30th, 1,786,815 pounds; May, 4,034,370; June, 7,287,820; July, 6,974,485; August, 7,165,355; September, 6,752,885; October, 6,477,420; November, 3,355,370; December, 3,250,245. Total shipments for the year 1865, 47,084,765 pounds, equal to 23,542 tons 765 pounds. The freight on the above from Copperopolis to Stockton, paid at the rate of eight dollars per ton, amounts to $188,339.

Rates of fare to New York on the Golden City, which sailed on the 10th, were as follows: First cabin, outside and ladies' rooms, $210; do. do. inside rooms, $157 25; second cabin, $84 50; steerage, $52 25.

The amount of bullion shipped from Austin by the National Bank during the month of December was $15,800. This sum, added to that shipped by Wells, Fargo & Co., makes the total shipment for that month $50,784 17.

Of Shakspeare, it is said by Richard Grant White, that he never re-touched or amended one line of all his works; he wrote for money, and having got his pay, he left his words to take care of themselves. He never wrote anybody a letter, and when he died, left but four signatures behind.

[Written for the Mining and Scientific Press.]

Letter from Grass Valley.

Editors Mining and Scientific Press:—After an absence of four days, enjoying New Year's, I again return to this place, and as I saw much during the few days spent here last week that might interest your readers, I proceed to give the following rough notes of the scenes and incidents of that visit:

The weather throughout was clear and cool, just the kind for pleasant traveling, except that the alternate freezing and thawing kept the roads in an unpleasantly muddy state. The scenery around Grass Valley has been so often described, that it would be a waste of time and ink to say anything about it here, except that it is very much like every other town of like altitude on the western slope of the Sierra Nevada, differing only in the circumstance that for several miles around the city the hills have been denuded of their heavy growth of pine and oak timber, and in its place a thick forest of young pine trees, from ten to thirty feet in height, has sprung up, giving to the hills in the immediate vicinity of the town a fresh greenness of appearance, which is noticeable nowhere else in the State.

THE MINES.

I had heard much of the number and importance of the quartz mines of Grass Valley; but I had no just conception of them until I had seen, as I did last week, the extent of that interest. The citizen of Grass Valley is awakened in the morning by the whistles of a hundred steam-engines, employed in hoisting and crushing quartz, reads his morning paper to see if there have been any new quartz discoveries, spends the day speculating and trading in quartz mines and the machinery for their development, and goes to sleep at night only to dream of the fortunes he is going to make in "quartz." But while the people here have "quartz on the brain" to the extent described, it must be recorded to their credit that they are free from the swindling spirit which has so disgraced the mining (?) operations of Washoe. The people of Grass Valley ask no outsider to invest in anything on which they are unwilling to risk their own funds, when they have any. Neither does every mine have a horde of idle and useless hangers-on, who do nothing but spend the shareholders' money, and embarrass the operations of the miners who are willing to work.

THE EUREKA MINE.

On Wednesday morning I rode out with the Watt Brothers to visit their mine, the Eureka, formerly owned by Mons. Julius Fricot, familiarly known in Grass Valley as "the Emperor," and for which they are said to have paid the nice little sum of $400,000. This mine is situated one and a half miles northeast from town. Mr. W. went with me through the mill, which is a very good one, consisting of four batteries, of five stamps each, each stamp weighing 860 pounds, with three and one-fourth inch stem. No amalgamating is done in the batteries, but the pulp is passed over blankets that retain all the heavier portion, which is passed through amalgamators, of a form common in this neighborhood, but which I have seen nowhere else in the State. They consist of a box, in the bottom of which are set two troughs, of a semi-cylindrical form, filled with quicksilver, over which the pulp is slowly washed by a stream of water, and is stirred in its passage by spikes of iron on a roller revolving at such distance above them that the ends of the spikes touch but slightly the surface of the quicksilver. [The machine here described by our correspondent is a Grass Valley invention, made some years since by Mr. M. Attwood, a well-known mining expert of this city, but for many years extensively engaged in quartz mining in Grass Valley. Mr. Attwood, we believe, never took out a patent for the invention, but has given it freely to the public. It appears to answer a most useful purpose.—Eds. Mining Press.] The tailings after being concentrated are now ground in arastras, but the owner contemplates replacing these with Hepburn & Peterson's pans. The sulphurets are concentrated by means of rockers, and are sold for working at the chemical works situated near by, or for shipment to Swansea. A lot of several tons was sold lately for exportation at $220 per ton. As the mill produces about one-half ton of these sulphurets per day, we may judge of the importance of this department of their gold-saving operations. After looking at the mill I went through the mine. The strike of the ledge is east and west, the dip nearly vertical. The breadth varies from four feet near the surface to six feet, at a depth of 317 feet, the greatest depth yet attained. The quartz is of quite uniform character, paying on an average about $40 per ton, though that they were working at the time of my visit was much richer. The walls of the vein are of greenstone, very smooth and regular, the general formation of the neighborhood being slate. Everything about the mine and mill is being made in the most thorough and practical manner, and all the modern improvements are being introduced as fast as possible.

THE UNION HILL MINE.

Leaving the Eureka about noon, I visited the Union Hill company's mine, situated two miles east of Grass Valley, of which Mr. Thos. Findley is superintendent. This company have an incline down about 150 feet, following the dip of the ledge, which is fifty feet to the south, the strike of the ledge being east and west. This company are simply prospecting, having crushed no rock except a little for the purpose of testing it, the returns from which were said to be quite favorable.

THE ALLISON RANCH MINES.

On Thursday I accepted the invitation of Dr. J. P. Blanks to go with him in his buggy to visit the celebrated Allison Ranch mine, of which Mr. M. Colbert is resident proprietor, the other owners living either at Grass Valley or at other places away from the mine. This mine, said to be the richest in Nevada county, is situated some three miles south of Grass Valley, and has been worked for eleven years. The present workings extend to a depth, measuring along the dip of the ledge, of 500 feet. The working of this mine is very expensive, on account of the excess of water—that from the new shaft requiring a ten-inch pipe for its discharge. On our return from the Allison Ranch we visited several other mines, of which I shall speak more fully hereafter.

THE OPHIR HILL COMPANY.

On Friday morning, just before leaving, I was invited by Capt. S. W. Lee to visit the Ophir Hill mine, of which he is superintendent and one-third owner. This mine is situated one mile southeast of Grass Valley, and is incorporated under the name of the Empire Co., the stock being nearly all held by Messrs. Lee, Houston, Morrison, and Pierre, owners of the celebrated blue-gravel diggings of Smartville. The strike of the ledge is north and south, with a dip to the westward of 35 degrees. The walls of the vein are of greenstone, in a slate formation. In width the vein varies from one to six feet, while the rock is the richest that I have ever seen. Capt. Lee showed me specimens valued at $15,000, which had been collected in four days' time, while $21,000 had been cleaned up from a week's run of five wooden stamps. The proprietors are erecting a new mill and hoisting works, which Capt. Lee says are the finest in the State, and which, when completed, will cost about $80,000. The hoisting engine is now at work. It was built by Goss & Lambard, of Sacramento, and is a Corliss engine of 50-horse power. Capt. Lee asserts that it saves 30 per cent. of fuel over any slide valve engine in use. The mill is being built at the Vulcan Iron Works in San Francisco, and is to have thirty stamps. It is to be furnished with all the modern improvements, including Hunter's Concentrators, one of which is now in use in the old mill, and gives very satisfactory results. Baux & Guiod's pans have been tried, both in this and in the mill of the Allieon Ranch company, and have given good satisfaction in both places.

To Mr. Poyzer, your local agent at this place, to Mr. Spencer and Mr. Dixon, stationers and newsmen, and to Dr. J. P. Blanks, I am under obligations for personal favors, while the pleasure of my visit was not a little enhanced by the polite attentions of mine host of the Exchange Hotel.

Yours, wanderingly, D.

Grass Valley, Jan, 3. 1866.

Yield of the Mines.—The yield of the Gould & Curry mine for the quarter ending November 27th, 1865, was 12,948 tons, valued at $38 14 per ton, and amounting to $493,836 72. The yield of the Chollar-Potosi mine for the same period was 12,509½ tons of ore, valued at $30 75 3-5 per ton, amounting to $384,742 10. The Savage yielded 8,036 tons, valued at $39 per ton, and amounting to $313,404. The Ophir yielded 3,000 tons, valued at $18 33⅓ per ton, and amounting to $55,000. The Mexican yielded 1,792 tons, valued at $17 92 2-5 per ton, amounting to $32,119 81. Total number of tons extracted, 38,285½, amounting to $1,279,101 63, from those five mines. That's not so bad; but just wait till they get to taking out ore from the big shafts now sinking, and then we can talk about a yield.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Monday, January 8.

36 shs Ophir at 230@340 per foot.
12 shs Savage at 760@745 per foot.
2 shs Savage at 755 per foot, s 5.
6 shs Savage at 740 per foot, s 30.
2 shs Savage at 750 per foot, s 3.
4 shs Chollar-Potosi at 150 per foot.
1 sh Belcher at 169 per foot.
9 shs Yellow Jacket at 440@452½ per ft, s 3.
8 shs Yellow Jacket at 445@455 per ft, s 6.
12 shs Yellow Jacket at 450@460 per foot.
12 shs Yellow Jacket at 420@410 per ft, s 30.
6 shs Yellow Jacket at 455@450 per ft, b 30.
4 shs Gould & Curry at 900 per foot.
2 shs Halo & Norcross at 249 per foot.
10 shs Empire M & M Co. at 270@276.
2 shs Bullion at 30 per share
45 shs Imperial at 107@108 per share.
5 shs Imperial at 107 per share, s 3.
15 shs Imperial at 106@105 per share, s 15.
5 shs Overman at 41 per share, s 10.
18 shs Overman at 41@40 per foot
10 shs Overman at 41 per foot, s 3.
60 shs Lady Bryan at 2½@2¼ per share.
$1,000 San Jose R R 7 ₱ cent Bonds at 72¾
$6,500 Legal Tender Notes at 69¾@69½, s 3
$ 6,000 Legal Tender Notes at 69¾ per cent.

Tuesday, January 9.

96 shs Ophir at 310@325 per share.
12 shs Ophir at 310 per foot, s 30.
4 shs Gould & Curry at 930 per foot, b 30.
8 shs Gould & Curry at 900@890 per foot.
23 shs Chollar-Potosi at 139½@140 per foot.
2 shs Chollar-Potosi at 140 per foot, b 3.
6 shs Chollar-Potosi at 140 per foot, s 3.
15 shs Chollar-Potosi at 137½ per foot, 30.
16 shs Hale & Norcross at 240@235 per ft.
22 shs Savage at 720@700 per foot.
2 shs Savage at 700 per foot, s 15.
3 shs Savage at 700 per foot, s 30.
1 shs Belcher at 150 per foot.
3 shs Yellow Jacket at 435 per foot, s 3.
5 shs Yellow Jacket at 435 per foot.
8 shs Crown Point at 560 per share.
4 shs Crown Point at 570 per foot, b 30.
15 shs Overman at 39 per foot, s 10.
10 shs Overman at 39 per share, s 6.
10 shs Exchequer at 7½ per share.
180 shs Lady Bryan at 4@4¾ per share.
10 shs Sierra Nevada at 8 per share.
10 shs Sierra Nevada at 7½ per share, s 15.
10 shs Imperial at 105 per share, s 10.
12 shs Imperial at 105½@107 per share.
16 shs Confidence at 24@26 per share.
4 shs Confidence at 25 per share, b 30.

AFTERNOON SESSION.

60 shs Ophir at 335 per share.
12 shs Ophir at 340 per foot.
1 sh Yellow Jacket at 435 per foot.
1 sh Yellow Jacket at 435 per foot, s 10.
1 sh Yellow Jacket at 440 per foot.
1 sh Yellow Jacket at 450 per share.
6 shs Yellow Jacket at 445 per foot.
1 sh Yellow Jacket at 445 per foot, s 3.
2 shs Yellow Jacket at 447½ per foot.
1 sh Yellow Jacket at 440 per foot, s 3.
2 shs Savage at 705 per foot.
2 shs Savage at 705 per foot, s 3.
1 sh Savage at 708 per foot.
3 shs Savage at 707½ per foot.
4 shs Savage at 710 per foot.
4 shs Savage at 712½ per foot.
3 shs Savage at 730 per foot, b 30.
3 shs Savage at 745 per foot.
2 shs Chollar-Potosi at 140 per foot, b 30.
1 sh Chollar-Potosi at 138 per foot.
1 sh Halo & Norcross at 235 per foot.
20 shs Crown Point at 560 per foot.
10 shs Wide West at 9½ per share.
110 shs Wide West at 9¼ per share, s 30.
30 shs Lady Bryan at 3¼ per share.
10 shs Lady Bryan at 3¼ per share.
20 shs Lady Bryan at 3@2¾ per share.
55 shs Lady Bryan at 2¾ per share.
30 shs Lady Bryan at 2¾ per share, s 3.
65 shs Bullion at 30 per share.
10 shs Bullion at 31 per share, h 3.
10 shs Bullion at 30 per share, s 10.
5 shs Imperial at 108 per share.
6 shs Imperial at 107¾ per share, h 5.
16 shs Imperial at 108 per share, h 3.
6 shs Exchequer at 6¾ per share.
130 shs Exchequer at 6 per share.
30 shs Spring Valley W W at 54¼ per cent
2 shs Cal Steam Nav Co at 60 per cent, s 3.
2 shs Cal Steam Nav Co at 60½ per ct, s 3.
Amount of sales..... ...$126,267 00

Wednesday, January 10.

4 shs Gould & Curry at 860 per foot, s 30.
4 shs Gould & Curry at 850 per foot, s 30.
3 shs Savage at 700 per foot, s 6.
3 shs Savage at 705 per foot.
6 shs avage at 700 per foot.
4 shs Savage at 700 per foot, b 3.
2 shss Savage at 690 per foot
3 shs Savage at 680 per foot, s 3.
3 shs Savage at 710 per foot, b 30.
1 sh Savage at 690 per foot, s 3.
3 shs Savage at 695 per foot.
3 shs Savage at 695 per foot, s 3.
1 sh Savage at 685 per foot, s 30.
2 shs Savage at 690 per foot, s 10.
3 shs Savag at 690 per foot, s 5.
1 sh Savage at 700 per foot, b 30.
1 sh Savage at 785 per foot, s 3.
1 sh Savage at 680 per foot, s 30.
4 shs Yellow Jacket at 450 per foot, cash.
3 shs Yellow Jacket at 450 per foot
2 shs Yellow Jacket at 440@430 per ft, s 10.
1 shs Yellow Jacket at 440 per foot, s 3.
1 sh Yellow Jacket at 440 per foot.
20 shs Crown Point at 655 per foot.
4 shs Crown Point at 560 per foot, s 3.
8 shs Crown Point at 560 per foot, cash.
6 shs Chollar-Potosi at 139 per foot.
2 shs Chollar-Potosi at 138 per foot.
6 shs Chollar-Potosi at 140 per foot.
10 shs Chollar-Potosi at 140 per foot, s 30.
4 shs Chollar-Potosi at 142½ per foot.
17 shs Chollar-Potosi at 142½ per foot.
5 shs Chollar-Potosi at 139 per foot, s 30.

FROM THE OFFICIAL REPORTS

Of the Fifth Industrial Exhibition

Of the Mechanics' Institute, San Francisco, 1865.

[Now in Press—Mining and Scientific Press Book and Job Office.]

[*Continued from Page* 5.]

ON ARCHITECTURAL & MECHANICAL DRAWING.

Committee:

M. F. BUTLER, IRVING M. SCOTT,
D. FARQUHARSON, P. J. O'CONNOR.

The Committee appointed on awards for the best architectural and mechanical drawings, report—

That they have examined the different drawings exhibited, and take pleasure in awarding the first premium to the very beautifully-executed designs submitted by Messrs. England & Turnbull, architects. They make this award most cheerfully, as it has rarely been their fortune to meet with such elaborateness and artistic finish, united with such boldness of execution.

The drawing of a steam-engine, by C. W. Boynton, the Committee consider the best mechanical drawing on exhibition, it showing great care in detail and fine workman-like finish, for which they award a first premium.

To Master S. C. Higgins, for drawings of locomotives, the Committee award honorable mention. These drawings showed decided genius, and, with proper study and practice, ignoring the bad habit of indiscriminate coloring, the exhibitor will certainly excel.

ON PENMANSHIP.

Committee:

W. L. D. BARDE, E. KNOWLTON, JAMES DENMAN.

The committee after careful examination of the penmanship of different exhibitors, award to E. P. Heald the first premium for best specimens of penmanship and business writing.

The committee award to F. S. Butler, for excellent "Caligraphy," a special premium of a silver medal.

ON HYDRAULICS.

Committee:

F. G. HESSE. S. DINSMORE. IRVING M. SCOTT.

Leffel's American Double Turbine Water Wheel.—This wheel may be considered as a combination of the Jonval and the inward-flow turbine, known under the name of central-discharge wheel. The lower wheel acts on the principle of the Jonval turbine, but, instead of receiving its supply from the top, the guide-plates are placed outside the wheel, so that the water flows from the outer circumference inwards on the wheel, to be discharged, like Jonval's, at the bottom. The upper wheel receives the water in the same manner, but discharges towards the center, at the inner circumference of the wheel. The form of the lower wheel has a tendency to give the water a downward motion, so as to balance part of the weight, to relieve the step. It is the opinion of the committee that such a combination cannot increase the average efficiency of both wheels combined above that of either wheel, provided both wheels separately yield the same effect; but, if there is a difference, it follows that the average efficiency of both wheels combined must be less than that of the superior wheel. The adjustable guide plates are well adapted to prevent loss through the contraction and expansion of the stream. It is the opinion of the committee that such a combination of wheels might be turned to great advantage by furnishing simple means of closing the inlet or outlet openings of the upper wheel entirely, whereby the same wheel could be used with the same advantage and efficiency for very small and large quantities of water. The committee recommend the workmanship and general adaptation of the turbine, and give their opinion, in the absence of practical tests made under their own supervision, that its efficiency will compare favorably with some of the best wheels

Tyler's Improved Water Wheel, entered by Smith & Hanscom, Agents for California.—This wheel recommended itself at once, on account of its simplicity, consistent with the true principle of its action. It is an inward flow turbine (central discharge vortex) wheel. The guide-plates are all united in one, forming a spiral passage for the distribution of the water. In the opinion of the committee, the disadvantage of such an arrangement, in producing more friction, deserves little consideration if compared with the great benefit resulting therefrom, viz., simplicity of construction, cheapness, and durability.

Both of the above described wheels, being of Eastern invention, they cannot compete for premium.

Excelsior Pump, W. D. Hooker's Patent; and Hansbrow's Pump.—Both of these pumps are California inventions, and enter into competition as to their superiority. Both contain different points of merit, which, as a whole, are so evenly balanced that the committee were unable to discriminate between their claims, but awarded to each, for their respective excellent qualities, a silver medal.

ON MINERALS, COLORS, ETC.

Committee:

H. C. BENNETT, W. BAUSMAN.

The mineral resources of California and the adjoining States and Territories are so varied in character, spread over so large an extent of country, and so wonderful in richness of ore as to excite surprise and elicit the admiration of the nations of the world. Though a comparatively barren and desolate country, whose vast area was considered almost valueless, and promising but few attractions to the emigrant, the excitement produced by the discovery of the precious metals in California, caused a flow of travel and of population to settle in the land, unparalleled in the history of nations. The epochs of the discoveries of minerals on the Pacific slope of the United States have been so near together and continuous as, scarcely, to be entitled to separation. Commencing with the discovery by Casterillo of the quicksilver mines of New Almaden in 1845, but twenty years have sufficed to bring to the knowledge of the world a richness of varied mineral resources in California and the adjacent country, hitherto unequalled. In 1848, Marshall discovered gold deposits at Coloma, which led to further researches and discoveries, the attractions of which has developed, as it were, a new nation on the Pacific coast, and stimulated the building of a trans-continental railroad, unequalled in magnitude, the completion of which promises to be witnessed by the present generation. Following the discovery of gold, in 1848, came that of coal, which was found at Bellingham Bay, Washington Territory, in 1855, at Coose Bay, Oregon, in the year following, and in the vicinity of Mount Diablo, in this State, in 1858. Besides these, other well-defined evidences of coal deposits have since been found in various places throughout the State, and appearances now justify the assertion that, before many years have passed, California will export largely of this mineral, which plays so important a part in the prosperity of all civilized nations.

In 1856, immense deposits of rich copper ore were discovered in Calaveras county, and, from present indications, other portions of the State promise to prove equally valuable in deposits of this mineral, which promise, if realized, will make this the greatest copper producing country of the world.

In the autumn of 1859, the discovery of silver ore in Washoe, then a portion of Utah Territory, and now the State of Nevada, created an excitement which resulted in the development of mines that now produce annually more silver than is needed to meet the entire wants of our nation for coin and other purposes. With the development of this mineral wealth in Nevada has come the permanent settlement of that State and a knowledge of agricultural resources in that comparatively barren country, not before supposed to exist. Besides the above-named valuable minerals, there have been found in California indisputable evidences of the existence of many others, well known to commerce and manufactures, the requirement for which will doubtless stimulate their practical development at an early day. Among these may be mentioned iron, lead, tin, sulphur, borax, arsenic and antimony, the production of which will open new fields of labor and enrich the State. While, in one sense, the mineral resources of the Pacific coast can scarcely be termed "mechanics," still, the production of the precious and other metals opens a wide field for mechanical invention and labor, and has already done more to cause the production of manufactures and machinery among us than all the other interests of the State combined. With these immensely valuable products, but with no practical mining knowledge among our people except that acquired by actual experience and hard labor, we have as yet scarcely prospected our mineral wealth. Could the mining population of our State acquire but a smattering even of scientific knowledge of the various forms in which minerals are found, there is no doubt but that much, now passed by as valueless, would be found to pay well to work, either for home use or for export. To remedy this great want we need a mineralogical school or college, with a museum or cabinet attached, for a display of the different forms of ore and the furnishing of reliable information as to their value for profitable working. This should be a State enterprise, and its cost, if located in a proper place, would be a thousand-fold repaid by its results. With a better knowledge of minerals, the misrepresentations of interested and designing persons would, in a great part be checked and parties disposed to invest in mining enterprises have a safeguard against the many mining swindles such as have been perpetrated heretofore.

The collection of minerals in this department was much larger and more valuable than was ever before exhibited in this city, and gave some idea of the almost limitless list of the mineral products of this coast. The most prominent object in this department was the exhibition of samples of

COAL.

The exhibitors of coal were not numerous, but the specimens presented were of large size and excellent quality.

The Black Diamond Company sent a very fine specimen, weighing upwards of 3,000 pounds, from their mine at Mount Diablo.

The Eureka Company sent an enormous mass, weighing nearly 6,000 pounds, from their mine at Mount Diablo, but it arrived too late for exhibition.

The Fuca Straits Coal Company sent a specimen from their mine, located in Washington Territory. This very fine sample, which weighs 150 pounds, was accompanied by a very interesting case of fossils, obtained by their exhibitor, V. M. Faucoult, from the rocks overlying the deposit of coal, which fossils are of great value to men of science as aids in fixing the geological position of the coal measures on the Pacific coast.

There was also on exhibition a specimen of coal, of good quality, reported to have been taken from a vein near Mayfield, Santa Clara county.

All the samples of coal were of better quality than those exhibited last year, thus clearly showing that with the increased depth of mines the coal improves in quality, and giving good reason to hope that in time coal suitable for smelting purposes may be obtained. The product of the coal mines near Mount Diablo is over 4,000 tons per month.

GOLD.

The displays of gold specimens on exhibition were very numerous and interesting. Aside from their intrinsic value, the arrangement of the specimens was excellent, affording the public a good opportunity of comparing a great number of samples.

Captain J. M. Aiken exhibited a beautifully arranged collection of specimens of gold from all parts of this State, and from Oregon, Nevada and British Columbia, which displayed more difference in appearance than was by many supposed to exist. This collection was one of the most popular features of the Fair. In it was exhibited the largest mass of crystalized gold, probably, ever found in the State. Also, a very large number of specimens of quartz and placer gold, and upwards of 400 vials containing auriferous sulphurets from various mines.

Timothy Hinckley exhibited a fine mass of native gold, weighing eight pounds, and valued at $2,000, taken from his claim near Jackson, Amador county.

Besides the above, there were a great number of smaller collections of gold quartz from mines in all sections of the State, which the Committee have to omit mention of for want of space in the report.

SILVER.

The display of silver ores in the Exhibition was both valuable and varied. Many of the specimens exhibited from the mines of Lower California, Arizona and Mexico, were of large proportions and great intrinsic value.

The "Consolidated Company of Eureka District," Arizona, exhibited a mass of argentiferous galena, which weighed 650 pounds.

The Emilia mine, at Guerrero, Mexico, exhibited some very fine specimens of silver ore, as did the Neustra Señora del Carmen mine, of Mexico, which were very rich in native silver. There was a good display of silver ore from the Comstock Ledge, Reese River and other districts in Nevada, as also from Silver Mountain and other districts in Alpine county, and from Placer county, in this State.

COPPER AND COPPER ORES.

The display of copper and copper ores on exhibition afforded a pleasing proof of the rapid progress made in the development of this important branch of the State's resources.

The Union mine, at Copperopolis, furnished the largest mass of sulphurets and the most beautiful cabinet specimens of native copper and copper ores. One mass of sulphurets sent by this company weighed 1,205 pounds, and another weighed upwards of 1,000 pounds, both being free from gangue rock. This company also exhibited two fine specimens of filliform native copper.

The La Victoire mine, Mariposa county, exhibited some fine samples of sulphurets and oxides, and a peculiar talcoso ore, containing large plates and masses as well as fine grains of metallic copper.

The Sauce mine, in Lower California, exhibited a very fine assortment of ores, similar to those from the La Victoiro mine, and known to contain a large percentage of both gold and silver.

There were several other fine collections of copper ores exhibited from mines in different portions of the State, which were of much interest. Of metallic copper there were several exhibitors.

Haskell & Co. exhibited twelve bars of very fine copper, the same being a sample of five tons obtained by operating on the ore of the Lone Treo and Dozier mines, in Mariposa county—chiefly oxides and carbonates. These parties deserve great credit for their enterprise in endeavoring to smelt the ores of copper in our State. These, in many cases, containing but a low percentage of metal, which the cost of transportation precludes shipping, would, therefore, in the absence of smeltiug or concentrating at the mines, practically prove valueless.

Mr. Meader, of the Union mine, Copperopolis, exhibited specimens of copper "matte" or "regulus," obtained by concentrating the poorer ores of that mine, which, otherwise, would have been worthless, owing to the high cost of transportation and other expenses necessary to bring it to market.

TIN AND ITS ORES.

There was a very fine collection of tin ores on exhibition from several localities in Mexico.

The North American Tin Mining Company exhibited a large and beautiful collection of ores from their mine at Durango, and five large ingots of the metal obtained from the ores.

The Durango Company, who have a mine in the same locality, also exhibited a fine collection of ores.

LEAD.

There were a number of very fine specimens of the ores of this metal on exhibition, chiefly carbonates and sulphurets.

BLACK LEAD, OR GRAPHITE.

The Eureka Plumbago Mining Company exhibited a number of large specimens of the product of their mine, of which large quantities are shipped to the Atlantic States and Europe.

There were quite a number of exhibitors of what appeared to be graphite, from a number of places in the State, but which was, really, an ore of manganese, and of little value at the present time. The opportunity to compare the two ores, as afforded by the Fair, will, probably, be the means of saving future expense and annoyance to those who had previously confounded the ores with each other.

PRECIOUS STONES.

Captain Aiken exhibited a very fine collection of precious stones, found in this State, which, in number and variety, exceeded any previous display. Among them

were a diamond of good lustro, n topnz, n nnmber of rubies, n handsome clnster of garnets, a number of rongh emeralds, nnd a very large collection of opals, polished and in the rough, and imbedded in the matrix in which they nre found.

A very interesting collection of opals, jaspers, agates nnd carnelians wns on exhibition by a lndy, who had collected the same on the sea beach, a few miles distant from Sau Francisco.

RARE METALS.

Captain Aiken exhibited specimens of rare minerals, among which were sodiam, alumiuum, magnesium and platinum.

MISCELLANEOUS COLLECTIONS.

L. Leland & Co., of the Occidental Hotel, exhibited a very valuable and interesting collectiou of specimens of gold, silver and other ores, from the States and Territories on the Pacific coast. Also, fossils, curiosities, etc., which attracted a great deal of nttention.

Dewey & Co., of the "Mining and Scientific Press," also exhibited a very interesting collectiou of similar articles.

COLORS AND CEMENTS.

The Pacific Color Company made a very handsome exhibit of crude and prepared colors, made by them from the earthy and other mineral substances which nbound in this State. This enterprise is of recent origin, but promises to become a very important brunch in the manufactures of the State.

There were nlso several samples of ochres, fuller's earth, pipe clay, and other vulnable earthy substances, on exhibition from various portions of the Stato.

BORAX.

Samples were exhibited of borax, both crudo nnd refined, the samo having been collected nnd manufactured in this State. This article has been found in such abundance and purity that exports of considerable quantities are being made to the Atlantic States. Not only can the large requirements of the Pacific coast for borax be supplied from California, but the testimony of scientific men, who have examined the deposits, or rather springs of this acid, near Clear Lake, is that it can be produced in such quantity and cheapness as to lower the price of the article throughout the markets of the world.

CALIFORNIA COLORS.

By G. J. W. Gibb & Co., San Francisco, one case Californin colors. Theso colors were manufactured by the Pacific Color Works, in San Francisco, from minerals obtained on this coast. In the collection is yellow ochre, raw sienna, rose lake, besides dry colors and furniture polish; awarded n diploma.

RECAPITULATION OF MINERALS, ETC.

Capt. J. M. Aiken, for cabinet of minerals, a silver medal; California Borax Co. San Francisco, for borax, a silver medal; Black Diamond Coal Co., B. H. Ramsdell, agent, San Francisco, for best specimen of coal, a diploma; G. J. W., Gibb & Co., San Francisco, California colors, a diploma.

ON LEAD WORKS.

Committee:

JOHN C. AYRES. A. E. PHELPS. C. H. ROBBINS.

This was the first exhibition of a new and important branch of manufacture, just inaugurated on this coast. Owing to the mining and other requirements of, virtually, a newly settled country, the demand for the various articles of lead manufacture have, with us, been largely in excess of that of older States of the same population. Being far removed from the sources of supply, there have been periods in which various branches of manufacture and labor were unfavorable affected by the scarcity, and consequent high prices, of the required articles of lead manufacture. With the establishment of home manufacture, the injurious fluctuations in the valuo of these articles will, doubtless, be avoided; nnd, besides giving employment to many in the manufactory itself, the use of the raw material may stimulate mining for lead in the island of Santa Catalina and other places of deposit on our coast, and, in time, cause other branches of metal refining and manufacturing to be established among us.

Lead Pipe, Sheet Lead, and Shot, exhibited by the San Francisco and Pacific Lead Pipe, Sheet Lead, nnd Shot Works; T. H. Selby, & Co., Agents.—There being no competition in this department, does not detract from the merit due to Messrs. T. H. Selby & Co. for their enterprise in creeting the only lead works now in California. The articles exhibited were of most excellent quality, fully equal to any imported, and showed conclusively that California is now in a position to be independent of all, and equal to any of the older countries in the manufacture of these articles. For this exhibition of these articles the committee award a silver medal.

ON STOVES, IRON PIPES, CHIMNEY TOPS, MILK CANS, ETC.

Committee:

M. De La MONTANYA. T. HADLEY BRYANT.

Bullard & Battles, San Francisco, four Petroleum Stoves, with Furniture.—These stoves are designed for all kinds of cooking and general housework, with a radiator attached, that will heat apartments. They are portable, emit no smoke or smell, nnd do the work well and quickly.

J. A. Dibble, Santa Clara, exhibited two large milk cans, with planished tin.—Awarded a first premium.

W. W. Walmsley, San Francisco, had on exhibition five pieces artesian well pipe, and two pieces ventilators.

A. Brown, San Francisco, exhibited one range and fixtures, with boiler attached, one chimney top, one ventilator, and a large display of milk cans, ranging in capacity from one quart to ten gallons each, together with measures, strainers, scoops, etc.

G. Moening, San Francisco, exhibited ono stove and fixtures, with an ingenious contrivance attached to the stovo for the purposo of keeping a constant supply of warm water, which is his invention; also, a lot of tinware.

John Bohn, San Francisco, exhibited ono stove and fixtures, and six articles of tinware.

Johnston and Reay, San Francisco, had on exhibition, in this department, one range, ono stove, and one patent chimney top and ventilator. This ventilator was invented and patented hy the exhibitors. It is of the centrifugal pattern, and is warranted to cure smoky chimneys in all cases.—Awarded a silver medal, for being the best on exhibition.

Caleb M. Sickler, San Francisco, exhibited two stoves, one Putnam's wringer, nnd one lot of coal hods, &c.; also, a fine display of milk cans and tinware, for which he was awarded a second premium.

Taylor & Iredale, San Francisco, exhibited ono stove, "Fire King," of California manufacture, and ono stove, "Peacemaker," imported. The "Fire King" was invented and manufactured in San Francisco, and presents a greater variety and more perfect combination of principles than any stovo over before devised, for which it was awarded a silver medal.

H. Harrison, San Francisco, had on exhibition a model of a patent chimney top.

J E Jorgensen, San Francisco, exhibited ono air-tight stove; also, two Hendrickson's chimney tops, for which he was awarded a second premium.

Robert Gaster exhibited three "tea economizers."

John B. Owens, San Francisco, had on exhibition an assortment of coal oil lamps; also, samples of coal oil cook stoves, designed for heating and nursery purposes.

ON BRASS WORK.

Committee:

JOHN C. AYERS, A. E. PHELPS, C. H. ROBBINS.

Wm. T. Garratt was the only exhibitor in this department of mechanical skill. He exhibited a large variety of water guages, valves, cocks, globes, whistles, hydraulic pipes, couplings and fire torches of California manufacture, which, in the opiuion of the Committee, will compare favorably with, if not exceed in finish anything of the kind manufactured here or elsewhere; and they would recommend the samo to the public.

Mr. Garratt exhibited nlso n large bell, weighing 637½ lbs., being the heaviest ever cast in California. This bell, together with a small ship bell, cannot, in the estimation of the Committee, be surpassed; and they nre creditable alike to California and the muufacturer. The Committee awnrd a silver medal.

ON GARRATT'S METAL.

Wm. T. Garratt, of San Francisco, exhibited a composition of whito metal for journals nnd other friction purposes connected with machinery. This metal has been tried by many of the large foundry and machine shops in this city, nud has in all cases proved successful. In a number of cases of heavy upright shafting, where steel buttons fused from extreme heat caused by friction, Garratt's metal was substituted, nnd fully nnswered the purposes required.

Those who have used the metal for heavy anti-friction purposes report it superior to any heretofore known. This metal is an Eastern invention, discovered by the father of the exhibitor. Awarded a diploma.

Gallagher & Weed exhibited one gade brass castings; two gades brass nails; one 2-foot engine gong. For the goug nnd castings the Committee would recommend the award of a diplomn, as being a perfect result in casting and finished brass works. Awarded a diploma.

ON COMBINATION LOCK.

Committee:

C. F. JONES, SAMUEL F. BLASDELL, S. H. ROUND.

The Committee report the following: The United States Combination Lock, manufactured by the U. S. Combination Lock Co., of Springfield, Mass., exhibited by V. S. W. Parkhurst, is what its exhibitor claims it to be, *i. e.* "not liablo to be opened without the key and a knowledge of the combination by which it was locked." The Committee deem it safe nnd reliable, and well adapted for bank vaults and safes, for stores, offices, dwellings, etc.—the combination decreasing with the size of the lock; and, in the opinion of the Committee, the lock is entitled to such consideration as will testify to its merits. Awarded a certificate of merit.

ON BRASS, COPPER AND IRON WIRE, CABLES, &c.

Committee:

JOHN C. AYERS, A. E. PHELPS, C. H. ROBBINS.

The only exhibitors in this lino were A. S. Hallidio & Co., who made a very fine display of the above named articles of California manufacture, and of excellent quality. The Committee award a silver medal.

A creditablo display of California wiro work, such as fenders, scives, model-stands, screens, traps, wovo wiro, etc., etc., was made by H. T. Graves. There being no competition in this branch of the exhibitiou, the committee awarded Mr. Graves a diploma.

To N. W. Spaulding for a very creditablo display of imported saws, and for saw-teeth, patented and made hy him in San Francisco, the merits of which consist in the preservation of the saw-plate, the committeo awarded a silver medal.

Sheffield & Patterson exhibit mill, mulcy and butcher saws, manufactured in San Francisco.

Space will not admit of an extended notice of this portion of the exhibition. The superiority of these saws over all others which havo come under the notice of the committee, was so evident that they cannot refrain from giving Sheffield & Patterson credit for producing the best display of these articles in the exhibition. For beauty of finish, with every improvement and patent combined, the saws exhibited by them, in the opinion of the committee, have no superiors anywhere.

For saw-teeth in the mill and muley saws, the improvement of which consists in the prevention of the teetb from clogging, the committee would recommend tbo award of a first premium.

ON MIRRORS.

Committee:

H. G. BLOOMER, JOHN BREWSTER.

This branch of manufactures was inaugurated in California about two years since, by Messrs Cameron, Whittier & Co., who constitute tho only firm on the Pacific coast engaged in the business of plating mirrors. Although all the materials used, with the exception of quicksilver, are imported, yet the manufacturing of mirrors here has proved, as it will in the future prove, of considerable benefit to our people, as every variety of glass, or size of mirrors needed, can be plated to suit the wants of purchasers when required. It is one step towards making California dependent on her own mechanical skill, and its success, in turn, has stimulated the development of kindred enterprises.

Plated Mirrors by Cameron, Whittier & Co.—The committee have examined the large plate exhibited by this firm, the only one of California manufacture in the Fair, and, finding it equal in workmanship and appearance to any imported, award a silver medal.

Plated Mirrors imported and exhibited hy Rosenbaum & Co. The committee find that, hy a new process of fastening the silver upon the plate, it is claimed to be water-proof, and better adapted to handling and transportation than usual. The color of these plates, however, seems to have been unfavorably affected by this process. The committee recommended the award of a certificate of merit to the exhibitors, the plate showing meritorious work. Awarded a certificato of merit.

ON SHOT GUNS, RIFLES, FISHING TACKLE, Etc.

Committee:

W. H. BROWN, SAMUEL F. BLASDELL,
WARREN LOUD, JOHN K. ORR,
W. B. FARWELL.

Tho committee after carefully examining tho shot-gnns exhibited by Messrs. Villegia, R. Liddlo & Co., and A. J. Plate, decide that for superior workmanship, style of gun, and general utility, the gun exhibited by Messrs. R. Liddle & Co. is entitled to the first premium.

Tho committee examined the rifles exhibited by Messrs. Slotterbach and Liddle & Co., and decide that for superiority of workmanship, and general use as a *target and field rifle*, the rifle exhibited by Messrs. Liddlo & Co. is entitled to the first premium—Mr. Warren Loud, one of the judges, dissenting from the report, so far as connected with tho rifles. To Chas. Slotterbach, for telescopic rifle, a silver meda.l

Messrs. Wilson & Evans, and R. Liddle & Co. made fino displays of fishing tackle, and everything appertaining to that business. Certificato of merit awarded to Messrs. Wilson & Evans.

ON GRAINING, POLISHING AND SIGN PAINTING.

Committee:

G. D. WYMAN, CHARLES HOPPS, T. H. FLETCHER.

The imitations of roscwood were beautifully done.

Tho pieces exhibited as walnut imitations do not properly come under that head, being only staining and polishing on hard wood, showing tho natural grain of tho same. Tho polishing on natural wood was well done.

The glass sign painting was well done, but the Committee think the same signs were on exhibition last year.

ON GLASS SIGNS.

Committee:

H. G. BLOOMER, JOHN BREWSTER.

The Committee have examined the specimens on exhibition, and find that the two specimens by Daniel Winter are well done, and that one of them was done by an unusual process, termed "embossing on glass." Tho Committee award Daniel Winter a first premium.

[*To be Continued.*]

5 shs Cholar Potosi at 140 per foot, s 5.
24 shs Ophir at 340 per foot, cash.
12 shs Ophir at 340 per foot.
4 shs Hale & Norcross at 240 per foot, c.
4 shs Hale & Norcross at 225 per foot, s 30.
2 shs Belcher at 145 per toot.
1 sh Belcher at 147½ per foot.
2 shs Overman at 40 per foot.
5 shs Imperial at 108 per sharo.
5 shs Imperial at 109 per share.
20 shs Bullion at 30 per share, s 5.
5 shs Bullion at 31 per share.
5 shs Bullion at 32¼ per share.
5 shs Bullion at 32 per sharo.
5 shs Bullion at 33 per share, s 5.
10 shs Sierra Nevada at 7¼ per share, c.
90 shs Sierra Nevada at 8@8¼ per share.
10 shs Lady Bryan at 3 per share.
2 shs Cal. Steam Nav. Co. at 61 p ct, s 3.

AFTERNOON SESSION.

1 sh Savage at 690 per foot.
3 shs Savage at 710 per foot, b 30.
7 shs Savage at 700 per foot.
4 shs Gould & Curry at 860 per foot, s 30.
4 shs Gould & Curry at 880 per foot, s 3.
8 shs Gould & Curry at 880@885 per foot.
2 shs Halo & Norcross at 240 per foot.
4 shs Hale & Norcross at 240 per foot, s 3.
10 shs Choller-Potosi at 142 per foot, s 5.
35 shs Chollar-Potosi at 140 per foot, s 30.
25 shs Chollar-Potosi at 141 per foot.
10 shs Chollar-Potosi at 141 per foot, b 3.
10 shs Chollar-Potosi at 142 per foot, b 5.
15 shs Chollar-Potosi at 140 per foot.
5 shs Chollar-Potosi at 140 per f oot, b 5.
10 shs Chollar-Potosi at 138 per foot, s 30.
5 shs Chollar-Potosi at 137½ per foot, s 30.
5 shs Choller-Potosi at 139 per foot, s 5.
2 shs Belcher at 145 per foot.
8 shs Crown Point at 560 per foot, s 3.
8 shs Crown Point at 565 per foot.
12 shs Ophir at 345 per foot.
16 shs Alpha, G H, st 200 per foot.
10 shs Wide West at 9¼ per share, s 30.
35 shs Sierra Nevada at 8@9¼ per share.
10 shs Sierra Nevada at et 9¾@9¾ per sh.
105 shs Sierra Nevada at 10 per share.
39 shs Confidence at 26 per share.
10 shs Bullion at 33 per share.
3 shs Overman at 41½ per foot.
5 shs Overman at 41 per share.
5 shs Overman at 40¾ per foot.
15 shs Imperial at 110 per share.
10 shs Imperial at 103¾ per share, s 3.
10 shs Imperial at 113 per share.
10 shs Imperial at 112½ per share, s 3.
Amount of sales.....$136,739 00

Thursday, January 11.

24 shs Ophir at 340 per foot.
1 sh Savage at 710 per foot, b 30.
1 sh Savage at 700 per foot.
1 sh Savage at 710 per foot.
4 shs Savage at 710 per foot, s 3.
1 sh Savage at 710 per foot, b 10.
2 shs Savage at 705 per foot.
26 shs Chollar-Potosi at 138 per foot.
5 shs Chollar-Potosi at 137 per foot.
5 shs Chollar-Potosi at 137 per foot, c.
2 shs Chollar-Potosi at 144 per foot, b 3.
15 shs Chollar-Potosi at 136 per foot.
10 shs Chollar-Potosi at 136 per foot, c.
5 shs Chollar-Potosi at 136½ per foot.
5 shs Chollar Potosi at 136 per foot, s 10.
10 shs Chollar-Potosi at 137 per foot, b 3.
2 shs Yellow Jacket at 440 per foot.
10 shs Yellow Jacket at 435 per foot, s 10.
9 shs Yellow Jacket at 445 per foot, b 3.
1 sh Yellow Jacket at 445 per foot, s 3.
1 sh Yellow Jacket at 415 per foot, casb.
1 sh Belcher at 140 per foot.
4 shs Alpha at 192½ per share.
4 shs Alpha, G. H, at 191 per foot, cash.
8 shs Alpha, G H, at 191@190 per foot,
8 shs Gould & Curry at 880 per foot,
2 shs Hale & Norcross at 260 per foot.
10 shs Sierra Nevada at 16 per share.
20 shs Sierra Nevada at 13 per share.
220 shs Sierra Nevada at 12@12½ per share.
10 shs Sierra Nevada at 12 per share, s 10.
20 shs Sierra Nevada at 12 per share, s 3.
10 shs Sierra Nevada at 12½ per share, b 5.
30 shs Sierra Nevada at 11 per share, s 30.
10 shs Sierra Nevada at 12¾ per share.
90 shs Exchequer at 5 per share.
5 shs Imperial at 112½ per share, s 3.
15 shs Imperial at 114 per share.
5 shs Imperial at 114 per shere, s 3.
10 shs Imperial at 115 per share.
5 shs Imperial at 115 per share, s 10.
5 shs Imperial at 117 per share.
5 shs Imperial at 116 per share.
35 shs Imperial at 117 per share, casb.
5 shs Imperial at 116 per share, s 5.
57 shs Cole, Va, at 3½ per share.
15 shs Bullion at 35 per share.
10 shs Bullion at 35 per share, b 3.
10 shs Cal Steam Nav Co at 65 per cent, s 60
2 shs Cal. Steam Nav. Co. at 60½ p ct., s 3.
$31,000 Legal Tender Notes at 71 per cent.

Friday, January 12.

22 shs Chollar-Potosi at st 137@141 per ft.
4 shs Gould & Curry at 875 per foot.
1 sh Empire M & M Co. at 25¢ per share.
120 shs Imperial at 117@116 per share.
25 shs Imperial at 113 per share, s 30.
16 shs Imperial at 116 per share.
5 shs Confidence at 26 per share
2 shs Savage at 710 per foot.
1 sh Savage at 700 per foot, s 30.
5 shs Yellow Jacket at 450@455 per foot
1 sh Yellow Jacket at 440 per foot, s 30.
4 shs Yellow Jacket at 455@457½ per foot.
95 shs Lady Bryan at 3@2¾ per share.
16 shs Crown Point at 570@575 per foot.
4 shs Hale & Norcross at 275@270 per ft.
4 shs Alpha, G. H., at 191 per foot.
60 shs Ophir at 350 per foot.
105 shs Sierra Nevada at 11¾@10¾ per sh.
400 shs Exchequer at 6¼@6 per share.
115 shs Bullion, at 37½ per share, c.

AFTERNOON SESSION.

1 shs Gould & Curry at 855 per foot.
1 sh Yellow Jacket at 450 per foot.
1 sh Yellow Jacket at 455 per foot, s 10.
5 shs Yellow Jacket at 460 per foot. b 3.
4 shs Yellow Jacket at 450 per foot, s 10.
1 sh Yellow Jacket at 450 per foot, s 5.
4 shs Yellow Jacket at 460@465 per ft, b 5.
6 shs Yellow Jacket at 450 per ft. s 15.
50 shs Exchequer at 5@5¼ per share.
30 shs Sierra Nevada at 9@10¾ per share.
65 shs Sierra Nevada at 9¾ per share.
30 shs Lady Bryan at 2¾ per share.
200 shs Lady Bryan at 3 per share.
100 shs Lady Brysn at 3¼ per share.
40 shs Imperial at 117@116 per share.
85 shs Imperial at 117@118 per share.
15 shs Imperial at 114 per share. s 30.
10 shs Chollar-Potosi at 140¼@145 per ft. s 30
15 shs Choliar-Potosi at 146 per foot, s 30.
46 shs Imperial at 142@147¾ per share, c.
2 shs Confidence at 25 per share.
2 shs Belcher at 130 per foot.
1 sh Alpha, G H, at 185 per foot.
3 shs Overman at 42 per foot.
1 sh Savage at 730 per foot, b 30.
4 shs Savage at 712½ per foot.

Mining Summary.

CALIFORNIA.

SHASTA.—We learn from the *Courier* that Mr. Conger, at Lower Springs, is getting out and hauling to the Union mill thirty tons of rock from his lode near by. Those who have seen the rock pronounce it very rich. The *Courier* of the 6th inst., says "the Union mill has been running a little over two weeks, and cleans up to-day. The prospects are very encouraging. Nobody wants to sell yet. Figures next week. Mr. Hicks, a practical and intelligent miner, has discovered a ledge of gold-bearing quartz near Lower Springs. He commenced work on it immediately, and hauled to the mill at Spring Creek about three tons of rock that prospects by mortar process very flatteringly.

The Washington mill, has sent in to Lewin & Co., the result of a thirteen days' run—ten stamps. The run was not regular, because of the trouble in contending with ice, but netted, after melting, $2,649 10. This company have now some two hundred tons of rock at their mill, and two hundred more out and ready to be hauled. They are certainly starting off well into the new year.

The Red Bluff *Independent* of December 30th, says: "Farquharson, of the Silver City Smelting Company, Cow Creek District, Shasta county, called on us last Friday and showed us a specimen of bullion, part of the proceeds of the first smelting with a new furnace lately completed. They got forty pounds of bullion out of four tons of rock. This company was organized about one year ago, and have built a furnace three and a half feet by five feet on the inside and thirty-eight feet high; the walls are four feet thick, of an excellent quality of fire-brick, which were made on the ground. The furnace is kept to a proper heat by a water-blast of excellent construction."

PLUMAS.—The Quincy *Union* says that Kitts & Co., have taken up the vacant ground between the Cresent and the Premium Companies, and that a working capital of $100,000 has been advanced to develop and prospect the same. This, it is thought, will undoubtedly prove a remunerative investment, as the claims must be good, unless all signs fail.

A correspondent of the *Union* gives a very full account of the various mining operations in progress at Sawpit Flat, from which we shall endeavor to make liberal extracts next week.

SIERRA.—The water for mining has been shut off to a considerable extent, in Sierra county, by the freezing up of springs and ditches, and matters generally remain at a standstill. The fall of snow has been quite light so far this winter, though there has been considerable light rainy weather.

The *Messenger* learns that mining is going on quite lively at Alleghany. The Masonic Company is working and doing well, though no figuree are given. The Fac-Simile gets richer and richer as they go down on the ledge. The Uninn, from the looks of the batteries, muet be doing well. The Twenty-One is laying on its oars, waiting for spring, while the Greenback Company is under easy sail, a few men only being employed in preparations for active work as soon as winter lets go his hold.

From La Porte there is but little in the way of mining news. An immense amount of top dirt has been washed off by those owning deep diggings, which will much facilitate their work in the spring.

Gard, Tuey & Company have just repaired the damage done their flume by the late storm, and are all right again. Messrs. Goodwin & Hall, at Yankee Hill, have just completed their bed-rock tunnel and are ready for work. These men have been untiring in their labors, and it is to be hoped they will be richly rewarded for all their toil.

ALPINE.—We learn from the Silver Mountain *Bulletin* that the Buckeye, No. I, are now down seventy-two feet below their first level, and will soon be down 100 feet, at which point they propose to drift and cut the ledge, and commence hoisting pay rock.

The Wide West Company, under the superintendence of Mr. J. L. Jackson are making excellent progress with their work. It is the intention of the Superintendent to sink 100 feet before cutting into the ledge, fully fixed in the belief that at that depth, a ledge will be found in quantity sufficient to raise pay ore. The quality of the ore is undoubted, for, it is either a southern extension of Buckeye No. I, or of the I. X. L., both of which produce rich average ore.

YUBA.—The Jefferson Company, at Brown's Valley, is about to make improvements in its mill. A new and more powerful pump is to be erected, together with some modern improvements to machinery.

NEVADA.—The New York Ledge, located in Willow Valley, has been sold by William Osborn to W. C. Felton, agent of an Eastern Company, for $3,000. The New York is one of the recent discoveries, and but little has been done as yet towards its development. The purchasers will go to work immediately and open the lead. Several mines in the vicinity of Willow Valley have recently passed into the hands of capitalists, and a large number of men are employed in developing them.

A rich strike was reported in the Mohawk ledge on Monday last; some immensely rich specimens have been taken out. The ledge is reported to be two and a half feet thick, and worth, so far as can be seen, several thousand dollars per ton. Capt. Kidd reports that the pay chute in this ledge is about 300 feet in length, paying from the surface down. If the rich pocket which has been struck should prove of any considerable extent, the captain may be inclined to build another steamboat next summer.

A new mining district has been discovered on the ridge between Montezuma and Cherokee.

The *Gazette* says that a large and promising ledge has lately been discovered in the vicinity of Gregory's mill, west of Greenhorn Creek, said to be fourteen feet in thickness, and the rock very rich. The discovery has created some excitement, and a number of miners have gone out to prospect in that vicinity. A lump of dirt and decomposed rock, not larger than a man's fist, taken from the surface, yielded twenty-five cents in gold.

A letter from a correspondent in relation to the mines of Grass Valley will be found in another column.

TUOLUMNE.—The Toledo mine, says the *Courier*, which lies about 4,000 feet to the northwest of the Rawhide Ranch Mine, and upon the prospecting and opening of which there has been a large amount of capital expended, promisee to yield a rich harvest to our fellow townsman, Mr. C. Labetoure. It has been visited and thoroughly examined this week by scientific men and experienced miners, under whose directions and observation some blasts were put in, with such a satisfactory result that they pronounce it second to none in the county. The parties who made this examination were Gen. Russ, of New York, R. C. Page, of San Francisco, and our well known miners, Steve Thomas and Jos. Lewis.

AMADOR.—The correspondent of the *Dispatch* says that the mines in the neighborhood of Drytown are not very prosperous at present in consequence of the scarcity of water, and that those who have only placer diggings are forced to do without. It is rumored that the Drytown Company intend in a short time to put on a large number of hands, which may possibly brighten up this place a little. Hinkson & Co., are now employing a number of men, and their rock pays well. Brown & Co. are getting very good rock.

The proprietors of the Coney mine are using two of Prater's Concentrators, which they pronounce a valuable invention. They save at least 2,100 pounds of wet, or 1,500 pounds of dry sulphurets in the course of a twenty-four hours' run. The mill is now crushing about fifteen tons per day, and the lead is improving as they descend.

HUMBOLDT.

The reports from the Arabia district are especially encouraging. A correspondent of the Humboldt *Register* says that Webber is driving ahead with his smelting works. He has a contract with the Montezuma Co., under which his furnaces will be fully employed as soon as they are ready for operation. He will emelt and refine for $50 per ton of ore. There is much ore there which will not pay for refining, but which can be advantageously emelted and shipped abroad for refining.

The Oreana mill has succeeded in working Jersey ore up to $75 per ton by mill process.

Ore from the Dunderberg and the Ne Plus Ultra had been run through without proper chemicals, and a very small saving of silver made. With materials better results will be obtained.

The Montezuma company is running chambers east and west from the working shaft, taking out fine ore. The company has quit sinking the shaft—a bad plan in mining. Work should always be kept on to keep up the largest possible exposure of work above.

Robinson has got to work in the Savaunah—sinking shaft.

Nason and company examinod the various ledges, and took a lot of about 1,500 lbs. of ore from different claims, to experiment upon.

REESE RIVER.

In the absence of the usual "clippings" from the Reese River *Reveille*, from which we generally make up our Reese River "summary," we append the following letter from an occasional correspondent, whose views with regard to the mines about Austin may not be altogether in accordance with those of our Austin friends generally. We give the letter, however, as we receive it, in order that both sides may be heard, presuming that some of our other correspondents, or the editor of the *Reveille*, will correct whatever may be amise in the following:

RECENT DISCOVERIES.

Several prospecting parties have been out over a hundred miles to the east and southeast of Austin, and the result has been the discovery and organization of the White Pine and Morey Mining districts. The ledges in the former district are very promising, being large as well as rich, and thousands of acres of heavy white pine surround the mines. The Morey district, lying considerably further south, is said to have good mines also. In Silver Peak district, an immense ledge, all apparently of a high grade ore, was recently struck, the shrewd and fortunate Mr. Samuel Martin owning half of the location. It is said to be quite as rich as the Vanderbilt, which works over $300 a ton, and is three or four times larger.

Many valuable locations have been made in Twin River and Blue Springs districts, during the last four months. The Reese River country is now sufficiently prospected to prove one thing, which is this—that for 150 miles east, 150 miles south, 25 miles west, and 100 miles north, almost every mountain range contains silver-bearing ledges, assaying on the top from $10 to $200 per ton. It has generally been supposed that all our veins are small, like those in the Reese River district, but this is a great mistake. The mines around Austin are about the only small veins we have in the whole Reese River country—the most of our outside districts having large, well-defined lodes, in no respect inferior to the Comstock, so far as surface indications are concerned. When it is considered that we have thousands of such lodes, extending over 40,000 square miles of silver-bearing country, you can well understand how confident the best-informed amongst us are that we are yet to attain an unapproachable greatness in silver mining. Depend on it, Central Nevada, ere ten years elapse, will, in the yield of her silver mines, be the wonder of the world.

MINING MATTERS AROUND AUSTIN.

Most persons are now becoming convinced that hundreds of the so-called mines around Austin are only paper-cutter veins, most of them of no value whatever. We have, however, many good mines there, and in the Yankee Blade section of the district; but though I shall awaken the sage-brush thunder of our mighty *Reveille*, by making the fact known in your pages, I must, notwithstanding, declare that nine-tenths of the paper-cutters will never pay for opening. And our new mills, how are they to hammer out dividends for their waiting shareholders? We have over 250 stamps, either ready to work or being made ready, and I defy the editor of the *Reveille*, or "any other man," to show how it is possible at any time during the next twelve months to keep more than sixty stamps in full work from the mines of the Reese River district.

The truth is, Eastern purchasers of mines have been badly swindled—why should we attempt to conceal or deny the fact? They were led to believe, by statements appearing in the Reese River *Reveille*, that any quantity of milling ore could be taken out a few feet below the surface, and good mills alone were wanted to make the mines profitable to their owners. Well, we have got the mills, but as the mines have not been opened, and there is no surface ore to be found, the mills, as a matter of course, will have to stand idle. In the end, the mill-owners will come out all right, provided they secure good ledges and open them properly; but, in the meantime, the reputation of the Reese River mines is about to suffer by the misrepresentations of those who have had ground to sell:

GOOD-PAYING MINES.

The Savage and Whitlatch Union, in the vicinity of Austin, are yielding large amounts of bullion, and the Southern Light Mine of the Manhattan company is looking remarkably well. The Yankee Blade, Whitlatch, and Confidence Mines, in Yankee Blade Cañon, are also doing well. The St. Helena mine, in Washington District, is paying handsomely, the galena ore it yields being reduced in smelting furnaces. The Murphy, in Twin River District, has eight feet of solid ore, which works $300 per ton, and the Vanderbilt, in Silver Peak, is turning out bullion by the ton. The San Antonio mines will soon become productive, as Mr. Hunt's mill is about ready to start work.

Such are the mines we have in Central Nevada, the few named being only a tithe of the paying mines we shall be able to enumerate at the end of 1866. Moneyed men in San Francisco have lost heavily in operating in silver mines controlled by incorporated companies. If they desire to get even, why not do as Mr. Samuel Martin did—buy a mine here, and work it so as to make it pay? In three years Mr. Martin will be the richest man on the Pacific coast, and yet the Vanderbilt mine only cost him a small sum. J. H. ORMTON.

Austin, Nevada, December 30, 1865.

VIRGINIA CITY AND VICINITY.

The Gold Hill *News* speaks as follows, of the rich strike in the 445 foot level of the Yellow Jacket mine, the same to which we briefly alluded in our issue of the 30th ult: The deposit is from three to four feet in width, and is immensely rich. It seems as though the precious contents of an entire thirty-feet ledge had all concentrated, by some natural process into a four-foot belt of wealth. Twelve tons of this choice ore have been removed in sacks to the Yellow Jacket Mill, for reduction. The *News* thinks this is one of the richest, if not the very richest strike, ever made on the Comstock ledge.

In a postscript, the *News* adds: The new strike is becoming richer. Since we were down to see it last night the workmen have taken out specimens of the ore, as large as hen's eggs, and which are literally tied and woven together with bunches of wire or native silver, as bright and as pure as native silver could possible be. We never saw the like—and everybody who has had a chance to see them declares it to be the biggest strike ever made in Gold Hill.

A very rich development, according to the *Enterprise*, is reported in the Savage, by the sinking of a winze in the 445-foot or lower level. The winze is now down seventy feet, all the way in good ore. Test assays of average rock taken from the bottom of the shaft each day show a yield per ton of from $80 to over $300. The full extent of the deposit is not known, as no drifting has been done, but the full size of the winze is in ore. The winze will be sunk to the depth of 125 feet, when a working level will be opened. This will be on a level with the 200-foot station of the Gould & Curry mine, which station is 200 feet below the level of the Gould & Curry lower tunnel. Captain Curtis, Superintendent of the Savage, says the deposit of ore spoken of above, is the finest he has ever found in the mine. Being below all previous workings, it is very encouraging to all companies working upon the Comstock lead.

The Crown Point mine, at Gold Hill, is at present yielding a larger quantity of good ore than ever before in its history.

The Gold Hill *News* says that the Kentucky Company, on Crown Point Ravine, have struck a very rich ledge, at a depth of 250 feet. The same paper says that large quantities of surface rock are being taken out by the different mines at Gold Hill. This is the rock which lays between the surface and the first levels of the mines, and is found in greater abundance than was expected, and generally proves to be of a much better quality than a large portion of that taken out deeper down. The *News* is credibly informed that this surface ore will work from $30 to $60 per ton, while the expense of getting it out is much less than that of the ores at a greater depth.

The Virginia *Union* learns from a letter received from the Truckee district, that Frank Enos, Superintendent of the Collins Company, Comstock ledge, reports having found the same regular blue clay casing, such as is found in the Comstock lode in Virginia. In the Collins Company's claim, which was only discovered about five months ago, the tunnel is now in 290 feet. The Pacific Company are driving ahead on the tunnel, and expect to strike the ledge in two or three months. The Imperial Consolidated Company are sinking an incline on the ledge, which is down 166 feet. Work will be commenced on the original Northern Light and Moonlight series in a few days.

ESMERALDA.

John S. Maybugh contributes to the Virginia *Enterprise* some very interesting details of the early history and present condition of the mines in the Bodie District, which we will endeavor to find room for in a future issue.

Advices just received from the Kearsarge Mining District, in Owen's Valley, confirm the reports of the richness of Kearsarge lead. The Company are reported to have struck it rich. They have a 20-stamp mill now on the way to the mine. A small 5-stamp mill is already on the ground. Passmore's mill in the same district is already in operation.

Mr. Dorr, representing New York capital, has also located a mill site on Little Pine, and will erect a mill.

The Dayton Company are putting up a saw-mill, and will be cutting timber next week.

Mechanical.

MORE ABOUT METALLIC ALLOYS—TITANIC IRON.

The valuable and, hitherto, exceedingly rare mineral titanium, which was first discovered as a useful metal by Gregor, in 1791, in Cornwall, England, has recently been found associated with iron, in inexhaustible quantities, in the Island of New Zealand. This metal is of a deep blue color, and occurs in limited quantity in iron ores in many parts of the world. It is always, we believe, found as an oxyd, and in one of the three following conditions: As a protoxide of titanium, TiO; a sesquioxide, $Ti^2 O^3$; or as titanic acid, TiO^2.

The metal titanium has long been known to be of great service as an alloy for iron—rendering that metal exceedingly hard and steel-like. Such an alloy is peculiarly noticeable and serviceable, from the fact that while it is *harder* than ordinary steel, it is at the same time *more flexible*, and is almost as free from oxydation as the ferro-manganese, noticed in our issue of November 25th, 1865. This alloy is very similar in its properties to tungsten or manganese alloys of iron, each of which have recently been fully described in the columns of the Press. But unlike either tungsten or manganese, this alloy may be obtained direct from a natural ore at a single smelting; the result being a pig-iron of a very white and compact fine-grained character, resembling to some extent the variety produced from spathic iron ore, and which may be readily run directly into ingots of a pure alloy of titanium and iron; *five per cent. of which*, added to the material of which the Bessemer steel is made, will make steel of the best quality.

It is estimated, from the experiments made in England, in a small furnace of one ton capacity, that, with a furnace of suitable dimensions, this alloy can be delivered in the pig, in London, for $20 per ton. It is, moreover, claimed that the alloy in this condition is fully equal to the Taranaki steel which is now selling in London at $420 per ton! This claim is made in the London *Mining Journal*. If the advantages of the process and quality of manufacture is not over-stated, the company which is about to embark in the business must have exceedingly good prospects before them, and will even put Bessemer quite in the shade.

According to the reports of the proceedings of a meeting of an association at Birmingham, of persons connected with the iron interests of Great Britain, as reported in the Colliery *Guardian* and London *Mining Journal*, some of this alloy, or titaniferous iron, has been worked into various manufactured articles, specimens of which were submitted to and tested before the meeting, with a result which appears to have fully sustained all that is claimed for it. The Messrs. Mosely, the well-known cutlers of Convent Garden, have manufactured from it various articles, which, according to the report, "they tested in every possible way, and tried its temper to the utmost, and they report that the metal exceeds anything they have worked in steel before. It was formed into razors, saws, table cutlery, surgical instruments, etc., and the closeness of the grain, fineness of polish, and keenness of edge, place it in the very foremost rank." We are unable to make out, from the accounts before us, whether this iron was submitted to a puddling process or not, but we presume it must have been. The account of the manufacture of the iron from which the above articles were made, simply says: "The first practical application of the New Zealand sand was made by Mr. Robert Mushet, who converted some, by simply smelting it in crucibles, into steel, for Messrs. Mosely."

Again, we are further told that "above five tons of pig-iron was supplied to Messrs. D. Hopkins & Sons, of Westbromerich, and by them it has been converted into bars, rods, sheets, hoops, etc., which prove to be of a very superior quality. *The iron was first puddled alone in the furnace.* Some of the 1¼-inch bar-iron has been made into a chain-cable at the works of Messrs. Purkes & Tipton, and has stood a strain of fifty tons, or nearly *three times* the Government test, and then it only yielded at the weld.

The importance of the experiments above alluded to cannot be over-estimated. The result indicated is one of the great *desiderata* of the age—the cheap production of a first-class tenacious iron. This iron, from all accounts, appears to be much more tenacious, and more capable of resisting the penetrating effects of blows, as from cannon shot, than the best of steel as heretofore made from ordinary iron. If there is no mistake in the above-named reports, and if this titaniferous iron can be manufactured anything like as cheap as indicated, the discovery must surely lead to the most important results in the manufactures of the world, in the various shapes and forms of metallic structure, to which iron and steel cannot be applied in the present state of knowledge, and at the present cost of the better qualities of those metals. By the use of such an alloy as above described, iron-clad ships may be made almost or quite as light as wooden war-ships, and, at the same time, far more impervious to cannon shot than even the most unwieldy iron-clads of the present day. As we have already said, more than once, this question of metallic alloys may now be considered as one of the most important mechanical problems of the age, and one which should engage the earnest attention of every man engaged in working metals.

From what has been said, it may be interesting to the reader to learn something of the probable extent of the rare deposit of this valuable mineral. In no other part of the world has it been discovered in workable quantities. The largest deposit heretofore discovered, we believe, occurs at St. Paul's Bay, in Canada, where there is a bed 200 feet long by 90 wide. It is also found in small quantities in some places in New York, and at South Royalston, Mass. It is found in considerable quantity at one or two places in Italy. It occurs in very small quantities among the gold-sands of this State, and is very plentiful in the sand found upon the bank of the Sacramento, at Martinez. In the same locality where the "precious stones" are now being gathered. This New Zealand titanic iron-sand is found distributed, more or less, over the whole island, and in almost inexhaustible quantities. The largest tract, however, is said to extend fully sixteen miles along the sea-coast of that island, at the foot of Mount Egmont, and in the neighborhood of New Plymouth. The account of this deposit says: "It is scarcely possible to conceive a property offering greater facilities for working—a shovel and a barrow being the only investment in machinery necessary."

This sand has been carefully analyzed and pronounced to be the purest ore of the kind at present known—containing 88½ per cent. of per-oxide of iron, and 11½ of oxide of titanium with silica. The great difficulty hitherto experienced in smelting the ore has arisen from its fine state of subdivision; but by the process recently invented in England its reduction has been rendered almost as easy as that of ordinary iron ore. One hundred tons of the ore have recently been taken to England to experiment upon from which the results heretofore given have been obtained. It is proposed, we believe, to work the ores in New Zealand, where there is an abundance of fuel in close proximity to the ore. The tracts of land where it occurs belong mostly to the British Government.

Patent Obtained.—Mr. Samuel Brown, of this city, has obtained, through the Mining and Scientific Press Agency, a patent for his "Disengaging Eye." This invention was fully described in our issue of December 2d, 1865; a few days previous to which date, a practical illustration of the invention was given on board the Revenue Cutter Shubrick, in this harbor. The invention is designed to secure the instantaneous and safe disengagement of a boat from a ship or steamer, when under full headway at sea; the object being to effect a greater security to the lives of passengers in leaving a vessel in distress. The invention is pronounced a most valuable one, and measures are being taken to secure its general introduction on board of all passenger carrying vessels.

FORGING AND WELDING CAST STEEL.

George Ede, an English mechanic resident in New York, has given a large amount of practical information on the management of steel, in a little pamphlet recently published by D. Appleton & Co. Steel is one of the most valuable and useful metals, and its management is quite too little understood by most mechanics. There are tons of the very best steel condemned as bad—when, the fact is, it has been made bad by forging; that work having been entrusted to workmen who did not have a proper knowledge of its management. It is not an uncommon thing for a man to say to his fellow workmen, "make it well hot—it will work the easier"—and in so doing destroy the very best of steel, pronouncing it a bad article, unaware of the fact that their own ignorance has destroyed it. Mr. Ede, in his pamphlet, gives the following directions for

FORGING CAST STEEL.

"In forging of cast steel the fire must be regulated by the size of the work; and in heating the steel, when the flames begin to break out, beat the coals round the outside of the fire close together with the slice to prevent the heat from escaping. To save fuel, damp the coal, and throw water on the fire if it extend beyond its proper limits. To ascertain the heat of the steel, draw it out of the fire, and that often, for it requires to be well watched to heat the steel properly; and if not hot enough, thrust it quickly in again. Soft coke is even better than coal for the fire. The heat the steel receives is judged of by the eye; and care should be taken not to use a higher degree of heat than is absolutely necessary to effect the desired purpose, and to use as few heats as possible; too frequent and overheating steel abstracts the carbon, gradually reducing it to the state of forged iron again. It is an idea of many men, that so long as the steel does not fly to pieces when they strike it with the hammer, it is not too hot; but it is an erroneous idea, and easily proved when it comes to be used; still it is an idea that many men will maintain, but only for the want of knowing better, and I hope that this will have the effect of altering their opinion. I can safely say that no man will ever injure the steel by being too careful how he takes his heats.

WELDING CAST STEEL.

According to the same authority, cast steel may be welded as readily as iron, and without the use of that metal, by using a flux made after the following receipt: Take sixteen parts of borax and one of sal-ammoniac, boil them over a slow fire for an hour, and when cold grind it into a powder. The steel must then be made as hot as it will conveniently bear, and the borax used as sand."

The Use of Steel Rails.—The employment of steel instead of iron for railroad tracks is a matter that is awakening considerable interest in scientific circles, as well as among practical mechanics and engineers at the East. At the regular monthly meeting of the Franklin Institute for December, the Secretary made especial reference to it in his report. Whenever they have been introduced the wear is said to be scarcely perceptible to the closest scrutiny; while iron rails, on roads over which a large amount of heavy traffic is daily passing, require to be replaced as often as once in eight years. There are two objections, however, that still preclude their very extensive use—their liability to break under heavy pressure when subjected to severe frost, and the great expense of their first cost. The first of these objections can be remedied by additional strengthening of the supports, and the improvements now being introduced for increasing the *toughness* of steel; while the increased facilities for their manufacture is fast obviating the second difficulty.

A New Knitting Machine, for family use, and intended to relieve the ladies of the irksome and unpleasant task of knitting by the hand, such articles as are needed in every family, is now being introduced into the Eastern States. It will in the short space of one half hour, convert a ball of yarn into a pair of stockings. It is capable of knitting a great variety of articles, and can be used by every housekeeper. It is simple in construction and its operation can be easily acquired by any person of ordinary capacity and judgment; is neat and ornamental in its construction, occupies but little space, and can be fastened to a table like an ordinary sewing bird.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

Office of the Mining and Scientific Press—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the Mining and Scientific Press. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted, no further agency expenses ensue. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the objection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unequalled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first instalment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of an article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos	$10
On every application for a design, for seven years	15
On every application for a design, for fourteen years	30
On every application for a patent, for seventeen years	15
On every caveat	10
On issuing each original patent	20
On filing a disclaimer	10
On every application for a re-issue	30
On every additional patent granted on a re-issue	30
On every application for an extension	50
On the grant of every extension	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C.	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No. 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

San Francisco:
Saturday Morning, Jan. 13, 1866.

A State Mining Convention.

Pursuant to the request of several mining journals and representative mining individuals, the association known as the "California Mining Bureau," of San Francisco, through their Board of Trustees, have issued the following call for a Mass Convention of the miners of California:

RESOLVED, That a Mass Convention of the miners of the State of California, be and is hereby called to assemble in the city of Sacramento, on WEDNESDAY, the 17th of January, A.D. 1866, at 12 o'clock, and that any person engaged in actual mining operations shall be eligible to a seat in said Convention.

JOSEPH W. LOW, Vice-President.
J. B. WHITCOMB, Recording Secretary.
San Francisco, December 6, 1865.

COPPER SMELTING IN CALIFORNIA.

In an editorial article in the *Evening Bulletin* of the 10th instant, on the subject of "Copper Smelting," that paper commits several egregious errors, which come within our province to correct. The subject of copper-smelting is now pretty well understood by all who are seriously engaged in the business, and there are no good reasons why errors or mistakes need be made. Mining for copper has been carried on in California for some four years; and copper smelting has been practiced for about two years. If failures have been made, they must be attributed either to experiments in untried processes, or to a lack of information upon the subject, which is within the reach of all.

1st. The *Bulletin* says: "At present ores under 18 per cent. are not considered profitable "to mine." This is quite a mistake. The Union, Keystone, Calaveras, Empire, and Napoleon mines have shipped ores of 15 and 16 per cent.; and sometimes C. T. Meader & Co. have shipped profitably 14 per cent. ores. The fact is, it is impossible for any one to generalize what is the lowest limit of percentage which will pay; the conclusion depends altogether on the locality of the mines, and the means of transportation. According to the *Bulletin*, it would seem that all the mines are equidistant from San Francisco, and that all copper ore comes through Stockton; thus ignoring, in a manner, the mines of Amador, El Dorado, and many other counties.

2d. That paper speaks of the *uncertainty of the yield of ores*. Now, there is scarce anything which can be more exactly ascertained than the percentage of copper contained in ore, and both seller and purchaser may know what they sell and buy. There is a very plain and easy way of sampling, adopted by people engaged in that kind of business; it consists in taking one sack out of every 50, 75, or 100, which is crushed in a stamping mill; then carefully mixed—half of that taken off; then mixed again; then half of that taken off, and the balance again mixed; and so on, until the mass is reduced to a quantity of six or four pounds, or less, which is then divided into four packages—two for two separate assays, from which an average is taken; the two others are kept as reference in case a third assay should be necessary.

3d. The *Bulletin* says that the great bulk of the copper ore obtained in this state is shipped "to be smelted in Swansea, Wales, while the "balance is shipped to Boston for the same pur-"pose." If the writer in that paper will consult its own columns of January 2d, only a week previous, he will learn among the shipments from this port for 1865, the following facts with regard to copper ore:

Shipped to Boston, 170,305 sacks.....10,644 tons.
Shipped to New York, 120,451 sacks..... 7,528 "

Total.....18,172 tons.
Shipped to Great Britain, 172,197 sacks...10,762 "

Total of copper shipments for 1865,...28,934 tons.

The *Bulletin* evidently ignores the existence of New York in our copper shipments. We have reckoned each sack of ore at 125 pounds; rather under the average weight, if anything. The bulk of California copper is *not* shipped to Swansea, but to our own furnaces at the East.

4th. The *Bulletin* calculates an expense of $4.50 for sacks for each ton of ore. That amount is wrong; a buyer of ores accounts, or at least should account, for all sacks which are not worn out and destroyed during the trip from this port to Swansea or Boston. The Union mine and Keystone get one-half, and often more, of their sacks back; and sometimes a sack makes *three trips*; and sometimes sacks are only used for carrying the ore from the mine to San Francisco. This is done when several hundred tons of one-grade ore are forwarded; in which case the ores are shipped in bulk; that is, they are emptied into the hold. That system of shipping has been much used lately, and to advantage—whether to the profit of the miner or shipper we know not.

5th. The *Bulletin* says: There "cannot be such a difficulty in smelting copper ores that the cost here will exceed that of smelting in Swansea, where, to use extremely poor ores economically, they grade their ores for smelting down to 4 per cent. By the *Swansea pro-*"*cesses* at least seven smeltings have to be "gone through with before commercially pure "copper from sulphurets is produced. We "have no such low grade ores as to require "such a percentage on the score of economy, "and, consequently, a less number of smelt-"ings and handlings will counterbalance the "increase of cost in smelting at the mines."

There is not more difficulty in smelting, properly, copper ores, than in smelting iron ores and manufacturing engines, building ships, or any such like; it requires only men who understand their business—and as to the cost, the position of California can be very clearly defined. Say that, at the lowest rates, we pay $35 per ton for shipping a ton of ore to Boston and Swansea. For how much less can we afford to smelt here? The difference will constitute the profit—less the freight of the pig copper to a market (because we cannot calculate on consuming more than one-twentieth part of our production at home;) besides giving employment to many laborers.

It is a mistake which is not confined to the *Bulletin* alone to suppose that Swansea smelters *grade* their ores down to 4 per cent.—they generally bring them to an average of 6 per cent. and often to 8—grading their own ores up, and the foreign ores down.

There is not such a process known as the "Swansea Process;" we know only of the "Welsh Process" being used in Wales; nor is this process performed invariably in "seven operations." When carbonates are in the market, which is generally the case, the total operations amount to six, sometimes to eight—the number of the operations depending generally upon the character of the ores; but sometimes being determined by the custom of the smelter, with but very little reference to the characteristics of the mineral.

Nor is there anything to justify the *Bulletin* in concluding that since we have richer ores, we need not go through the same number of operations—whether the Welsh smelter works 4 or 10 per cent. ores, he goes through the usual routine. It is only in case he has to smelt a particular class ore such as carbonates and oxides, together or separate, that the number of operations can be diminished.

But what is the use of dwelling so much on the Welsh process in connection with smelting copper in California? It is of no practical use to us since that system cannot be adopted here. Up to this day there are many people who think that none but Englishmen understand how to work copper successfully—or at least that none but the Welsh system is good for smelting copper. Nothing can be more erroneous.

There are three ways of working copper ores; smelting in reverberatory furnaces, smelting in blast furnaces and treating by lixiviation. In France, Germany, Sweden, Norway, Russia etc., they use generally blast furnaces; in England, Spain and Chile they use reverberatory furnaces; in the United States, they use both; but blast furnaces much more than the others. What is the reasons of such difference? In all countries the art of smelting copper is well understood, but the work is performed according to the conditions of price, quality of fuel and labor. In England, where fuel is cheap and good; where experienced help is found in abundance and paid but little, the reverberatory furnace—Welsh process—flourishes. In California where there is no mineral coal fit for smelting purposes, where the required kind of laborers are few and wages very high, *we must* employ blast furnaces. Any attempt to copy, here, the Welsh process, will result in a failure—*vide* Antioch. Therefore what is the use of talking of Swansea smelting and calculating on that for our copper interest?

6th. In speaking of the Plumas Copper Smelting Company, the *Bulletin* seems to ignore the fact that other similar works have been established in this State.

There are the Meader Smelting Works, at Copperopolis, where nearly 3,000 tons of eight per cent. ores were smelted last year. These works will be augmented this year to a capacity of twenty furnaces, so that ten may always be running, with a capacity to smelt 100 tons of ore per day.

There is the Chowchilla River Copper Smelting Company, in Mariposa county, where they have been working for the last fourteen months.

There are the Tauntou Works, at Campo Seco, Calaveras county, which have been running actively and successfully since October last.

There are copper smelting works now in process of erection in the neighborhood of San Francisco, of which we shall probably speak more fully in future.

7th. The *Bulletin* tells us that the Plumas Copper Smelting Company shipped ten tons of commercially pure copper," "assaying 96 per cent.," and that the metal was obtained by one smelting. Now, 96 per cent. is *not* commercially pure—98 per cent. is hardly so. We have not seen these ten tons of copper, but we doubt very much that they have been obtained *by one smelting*. We are perfectly aware that metallic copper can be obtained by the first operation; all that is necessary for that is to carry the oxydation and desulphurization to a high degree, and then the product of the furnace will be about two-thirds matte, of from 33 to 45 per cent. copper, and *one-third* metallic copper, containing from 75 to 90 per cent. of copper; the proportion of 96 per cent. must be exceedingly small. That operation is what the German furnaceman calls *reichschmelzen*. But we never heard before that *all* of the roasted ore charged in the furnaces yielded its copper in the shape of 96 per cent. purity! At any rate, some matte, or *regulus*, as it is also called, must have been produced with that 96 per cent. copper!

8th. The process of roasting or calcining to which the *Bulletin* alludes, is nothing new—it having been practiced for the last 800 years, and has been repeatedly described in the columns of the MINING AND SCIENTIFIC PRESS. What is certainly new, though, is the statement made that *the base metals are all destroyed*. What! sulphur, nickel, cobalt, manganese, arsenic, antimony, etc., have all these been expelled? What has become of the iron, lead, phosphorous, etc.? Truly, this is the greatest achievement ever accomplished in metallurgy! Just see, we are accomplishing in California, by one operation, what requires in England six, seven and sometimes eight operations.

9th. The *Bulletin* then adds, "What loss of copper, if any, occurred during the process, we have not learned." Let us inform the scientific editor of the *Bulletin* that there is *never* any furnace operation without *some loss*. In Germany the slags assay from one-half of one per cent. to seven-eighths. The poor slags of the Meader Smelting Works, at Copperopolis, assayed for a long time only one per cent.

10th. The *Bulletin* says: "The process was discovered by John C. Chapman, a farmer in Genesee Valley, who had no practical knowledge of copper mining or smelting."

Now, let us inform the lucky farmer of Genesee Valley, or any other man, that if he can treat nine per cent. copper pyrites in such a manner, he can command a million of dollars for his process in England, and as much in the United States; for, if the *Bulletin* is correct, Mr. John C. Chapman has found what metallurgists and chemists have been seeking for, in vain, for a century.

In another passage, the *Bulletin* says, in speaking of the roasting process: "The wood being ignited, the heat causes the sulphur in the ore to burn and consume itself," etc.

Now, that is not exactly the case; if the roasting operation is well conducted, only a small proportion of the sulphur is *burnt*, and such a degree of heat only is generated as to cause the lumps to dilate and to allow the sulphurous fumes to escape along with *some* of those base metals, such *as can* be evaporated.

THE GOLD-BEARING ROCKS.—Owing to circumstances which it is not necessary to explain, Prof. Rowlandson's series of articles on the Age of Gold-Bearing Rocks will be continued a few weeks more. In the course of the papers which will issue in future, a brief *resume* will be given of the geological circumstances accompanying the most celebrated ancient and modern gold fields. Those who have followed the Professor in his articles up to the present time, must have observed that, on exclusively chemico-metallurgic grounds, he has for many years been disposed to deem it probable that auriferous and argentiferous veins would be found enclosed among *other* rocks than those of palaozoic age; among which rocks *only* it has heretofore been ably and successfully contended by Sir Roderick Murchison, and admitted as an axiom by geologists generally, that such veins could be found. From the manuscript already in our possession, we venture to predict that the future papers will not flag, but will increase in interest. Should the Professor fairly establish, as a fact, that gold and silver veins exist in rocks of more recent date than those only which have previously been accepted as the matrices of the noble metals—not only on the American continent, but also in other parts of the world—the fact will form a memorable era in the history of mining; and challenges especial attention, when it is remembered that the inferences arrived at have been drawn, by purely scientific deduction; quite as much so as the predictions of Le Verier and Adams as to the existence of the planet Neptune, prior to its becoming visible through the aid of the astronomer's telescope.

TO CORRESPONDENTS.—The following communications have been received, and are on file for publication:

Continuation of "The Age of Gold-Bearing Rocks," by Prof. Rowlandson.

A letter from Capt. Samuel Adams, on the "Successful Navigation of the Colorado River by Capt. Thos. E. Truworthy, of the Pacific and Colorado Steam Navigation Company."

A communication from Lower California, by "Aviador."

A letter from Partzwick, Mono county, Cal., by "X."

Markleeville correspondence, from "Sirrom."

"Hotel Telegraph," by J. Mosheimer.

"Table Mountain," by J. A. Jennings.

Letter from Nevada City, by "Nevada."

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

San Francisco, Saturday Morning, January 13th, 1866.

There is an ample supply of capital offering for loan purposes, and the prevailing rate in bank is now 1¼ ₱ cent. per month. The late decision of the Supreme Court of Nevada, declaring the Specific Contract Law of that State to be in conflict with the Legal Tender Act of Congress, has created the greatest disappointment here, in both mining and commercial circles. We have no space in these columns to review this decision at any length; but must call attention simply to one or two prominent considerations. It is a well known axiom of jurisprudence, and lies at the very foundation of it, that *law is in order to equity.* No construction of law, therefore, which contravenes the great principles of equity can be right. That such was not the intention of Congress is evident from the practice of Government itself under the Legal Tender Act, in all its dealings with the people. It has invariably recognized the difference between its coin issues and paper issues, has made and faithfully performed its contracts in both. The significance of this course is unmistakable, and it is a libel upon the Government to invoke its authority in justification of villainy. It is a distortion of the law, and not a correct interpretation. It is wrong, and subversive of all law.

The Supreme Court of Nevada dwell much upon matters of public emergency and public policy, as justifying the Act of Congress to which they have attached so odious a meaning. The Act itself was doubtless warranted by the emergency; but what emergency could warrant the sacrifice of public honesty—of good faith among men—sanction the most flagrant and universal infraction of justice and honor. It is unnecessary to say that no law of the Congress of this Nation could have any such intent, nor can it be justly liable to any such interpretation.

We learn that the case which has called forth these remarks is to be reopened next week, and another hearing granted, with argument of counsel, which had been supposed unnecessary before. And it is confidently believed that the decision will be reversed, and the vital interests of the State thus shielded from its paralizing influence. We are happy to believe that public sentiment in Nevada is not with its judiciary in this matter; that there is a broad substratum of honor and integrity which will speedily reveal itself, and scatter to the winds this feeble emanation of ignorance and prejudice. From the recently published Report of the Hon. Secretary of the Treasury, it is evident that the whole power of Government is now directed to the establishment of a sound currency—the restoration of a specie basis. We are greatly mistaken if the loyal people of Nevada are not on the side of Government.

The Mining Share Market has been comparatively steady this week, with a fair degree of activity in most stocks.

Gould & Curry has met with small sales within a range of $850, seller 30, ex-dividend, and $900 cash, closing at $865. Operations at the mine and mill present no new feature, and receipts of bullion thus far the current month are about up to the usual average. The various drifts from the lower stations are progressing rapidly. We are informed that no dividend is likely to be declared for the present month, but that one is contemplated within two months from the date of the last.

Savage has been actively dealt in, and some 175 feet were sold, advancing from $745 to $765, receding to $690, rallying to $712½, and selling yesterday at $710@$712½. The winze sunk from the fifth or lower level is now down some 75 feet. The deposit of ore through which this has passed is said to be a little irregular and uncertain in some places, but its general features indicate the presence of a promising body of valuable ore in this part of the mine. The entire product has averaged some 100 tons per day recently.

Yellow Jacket rose from $440 to $460, declined to $435, rallied to $450, dropped to $430, seller 10, was then dealt in at $445, and sold yesterday within a range of $450@$465. The aggregate yield of bullion for the month of December amounted to $80,672.92 from 2,722 tons of ore—an average of $29.63 per ton. The indebtedness of the the company January 1st, amounted to $191,503, crediting the recent assessment in full. The ordinary expenses of the mine and mill, last month, were less than $65,000, but some $20,000 additional were expended upon improvements to the south shaft, new machinery for the mill, supplies, etc. During the present month 100 tons of first class ore, worth $250 per ton net, will, it is said, be taken from the mine, and better results are anticipated from the second-class ore.

Crown Point has been rather inactive, declining from $585 to $550, rallying to $555, and selling yesterday at $570@$575. During the week ending January 5th, 243 tons of ore were taken from this claim. The west stratum of ore in the lower level is looking well, and promises to be fully as wide as at the bottom of the incline from the 230-foot level, some 15 feet.

Ophir rose from $317½ to $340, receded to $310, rallied to $345, and sold yesterday at $345@$350. During the last half of December, 177 tons of ore were sent to the Reduction Works, averaging $155 per ton, and in the entire month 708 tons were hauled to the River Mill, yielding an average of $47.67. A small body of very rich ore was found recently in the 4th gallery, and operations in the 9th are, it is said, progressing satisfactorily. Receipts of bullion since January 1st, have amounted to $21,500.

Empire Mill and Mining company has been sold within a range of $200, seller 90, and $270 cash, closing at about $250. The product of ore for the month of December exceeded 2,000 tons, and the receipts of bullion amounted to some $42,000. The average daily yield of the mine is now about 70 tons, and the company are accumulating a surplus.

Alpha rose from $205 to $217½, fell to $190, and sold yesterday at $190@185. Hale & Norcross has been dealt in within a range of $220@290, closing at $270 asked. Belcher fell from $150 to $140, and closed yesterday at $130.

Chollar-Potosi has been dealt in to the extent of some 500 feet, steadily declining from $150 to $136, and selling yesterday at $137@$147. During the seven months ending November 30th last, 12,192¼ tons of ore were sent to custom mills, producing, in the aggregate, $397,664, or an average of $32.61 per ton, and 12,028 tons were sold at an average of $7.67 per ton. The amount paid to mills for crushing was $224,195, an average of $18.38 per ton. The actual cost of mining the ore has been $171,596.13—an average of $7.08 per ton. The two small bodies of ore on the fourth station of the Chollar and the 485 feet level in the Potosi have been entirely worked out, and at present the ore is being taken from the untouched bodies of low-grade ores, and the old workings in the Bajazet ground, Grass Valley level, Grass Roots station, and the station between the third and fourth Chollar. During the week ending January 5th, 403 tons of ore were sent to custom mills, 306 tons were sold at $8 and 35 tons at $5. The new shaft is now timbered to a depth of 538 feet, and the drift to the ledge in 110 feet. The total expense incurred in the progress of this work to November 30th, exceeded $110,000. The cost of crushing ore is now about $16 per ton to this company.

Imperial is in rather better favor, advancing from $105 to $113, and selling yesterday at $116@117. Receipts of bullion last month exceeded $74,000 from some 3,000 tons of ore. Out of the net earnings since November 30th, $31,264 have been applied to the liabilities of the company, which now in the aggregate amount to $37,500, and will mature at the close of January, February and March.

Bullion rose from $30 to $36, and then sold at $37@36½. Overman was dealt in at $39@41½, closing at $42. Sierra Nevada rose from $7½ to $13, and sold yesterday at $11½@9½. Lady Bryan rose from $1¾ to $4⅞, fell to $2½, and closed at about $3.

The aggregate sales of stocks since Saturday last amounted to $755,506.

Blind Springs District, Mono County.—We learn from Mr. J. S. Jameson that this district is located forty-five miles southeast from Aurora, and promises to prove very rich. The Sierra Blanca Co., incorporated in New York, have already expended near $75,000, under the efficient superintendency of Dr. A. F. W. Partz, in exploring their numerous rich ledges and in making improvements of various kinds of a permanent character. They already have some machinery on the ground, and an agent of the company is now in this city making purchases of more. A company has been organized in Philadelphia with a working capital of $100,000 now ready, called the Cornucopia S. M. Co., for the purpose of working the ledge of the same name; it being one of the first discoveries in the district, and also one of the most valuable. This mine will also be under the superintendence of Dr. Partz.

Singular Railroad Accident.—A short time since as the evening train from Philadelphia, was going through the long tunnel at Port Clinton, a large piece of rock fell from the roof and passed through the middle of the rear car, carrying a seat and a portion of the floor through to the track. Fortunately the passengers who were in the car were seated at either end, and no person was injured, though all were considerably alarmed.

Rain in December.—The amount of rain which fell in Grass Valley during the month of December was 2.09 inches. The lowest point reached by the thermometer during the month was 24° above zero.

Copper Ore from Arizona.—The schooner Isabel, on her last upward trip from the Colorado River, brought to this city some of the finest copper ore ever received from Arizona. The ore is all from the vicinity of Williams' Fork, on the Colorado. A sample lot of "wash ore" from the Planet mine will yield, it is said, seventy per cent. of pure copper, and the ore from each of the different mines represented shows a marked improvement in quality as the work progresses deeper and the ledges become developed.

A number of citizens of Stockton are opposed to the proposed Stockton and Copperopolis Railroad terminating at the wharves in that city, on the ground that it will work injury to the draying business—a very poor reason; and one which, if allowed to prevail, will reflect very little credit upon the character of the city. The city of Erie, Penn., years ago, covered itself with disgrace, in the eyes of all honest business men, for carrying out a similar principle for a similar reason. We are persuaded the citizens of Stockton will be governed in this decision with regard to their road, by no such selfish object.

A Large Steel Ingot.—The operation of casting a cubic block of steel, of the enormous weight of one hundred tons, was successfully accomplished recently at a foundry at East Greenwich, near London.

An iron manufacturing company has been incorporated at Portland, Oregon, with a capital of $100,000.

San Francisco Stock and Exchange Board.

San Francisco, Jan. 13, 1866.

	Bid.	Asked.
United States 7 3-10ths	$ 71	$ 72
Gov. Legal Tender Notes	67	..
State Bonds, 7 ₱ cent	83	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	65	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	50	55
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	90	..
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	65	80
California Navigation Co	60	61
State Telegraph Stock	20	..
San Francisco Gas Co	100	105
Sacramento Gas Co	..	75
Spring Valley Water Co	55	57
RAILROADS.		
Sacramento Valley Railroad	..	
Omnibus Railroad	42	45
Central Railroad Co	..	65
North Beach and Mission	42	44
MINING STOCKS.		
Ophir	$ 345	$ 350
Gould & Curry	875	880
Empire M. & M. Co	....	....
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	710	715
Chollar-Potosi	140	141
Hale & Norcross	270	275
White & Murphy	....	....
Sierra Nevada	7	8
Piney	..	..
Burning Moscow	..	..
Lady Bryan	..	..
Sacramento & Meredith	....	....
Burnside	....	....
North American	....	....
Baltimore American	....	....
Yellow Jacket	455	457½
Overman	41	42
Cedar Hill Tunnel	....	....
Wide West	6	7
Crown Point	570	575
Antelope	....	....
Emeralda	1	5
Eliza	....	....
Real del Monte	..	15
Bullion, G. H.	35	37
Buckeye	....	....
Dick Sides	....	....
Imperial	116	117
Alpha	185	190

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	DAY OF SALE.
Animas, Durango, Mex.,	40c		Feb 3
Agawam, Nye co., Nev...		Annual Meeting,	Jan 13
Agawam, Nye co.,	$1		Jan 13
Arbitrios, Chihuahua, Mex.,	$1		Feb 3
Adams, Petroleum,	$5		Jan 11
Alban, Storey co., Nev.,	$1		Jan 9
Arroyo Seco, Amador co.,	$1		Jan 3
Alpha, Storey co., Nev.,	$50		Jan 18
Bunker Hill, Amador co.,	$5		Jan 6
Blue Ledge, Lander co.,	$1		Feb 3
Blue Ledge, El Dorado co.,	$1.50		Jan 13
Buckeye, Lyon co., Nev.,	$3		Jan 3
Bullion,	$10		Levied
Bunker Hill, El Dorado co.,	$1.50		Jan 20
Chicago, Lander co., Nev.,	$2		Dec 30
Consolidated Silver Hill M Co., Nev.,	$2		Feb 10
Capitola,	20c		Feb 8
Capital			Meeting
Chiplonoma, Sonora, Mex.,	$5		Jan 27
Cassell, Nevada co., Cal.,	$5		Feb 10
Caledonia Tunnel, Gold Hill, Nev.,	$2		Dec 23
Central			Annual Meeting,
Crown Load, Mariposa co.,	$5		Dec 30
Chollar-Potosi, Storey co., Nev.,	$100		Jan 21
Confidence, Storey co., Nev.,	$25		Jan 22
Cosala, Sinaloa, Mex.,	$1		Jan 29
Diana, Lander co., Nev.,	$10		Jan 20
Daney, Lyon co., Nev.,	$1		Jan 15
Dios Padre, Alamos, Mex.,	$2		Feb 2
Elk Horn, Petroleum,	50		Feb 7
Exchequer, Storey co., Nev.,	$2		Jan 17
Florida, Reese River,	$10		Jan 2
Franco-Americana, Mex.,	25c		Jan 26
Goodwin, Lander co., Nev.,	$2		Dec 16
Great Western Tunnel Co., Aurora, Nev			June 27
Geo Washington, Alpine co.,	$1		June 27
Gould & Curry		Dividend $50 per foot, payable Jan 3	
Hanscom, Copper, Del Norte co.,	15c		Jan 20
Hornet, Lander co., Nev.,	$1		Jan 20
Honest Miner, Lander co.,	50c		Jan 13
Halo & Norcross, Storey co., Nev.,	$25		Jan 15
I. X. L., Alpine co.,	$3		Jan 2
Jeffrey Oil, Humboldt co.,	50c		Jan 4
Jura, Storey co., Nev.,	75c		Jan 2
Jewett, Storey co., Nev.,	$1		Jan 6
Joe Lane, Lander co.,	50c		Jan 13
Kentucky Copper, Calaveras co.,	$1		Jan 20
Kentuck, Storey co., Nev.,	$17.50		Jan 3
Lady of the Lake, S. F. Dist, Arizona,	25c		Dec 30
Leland, S. F. Dist., Arizona,	25c		Dec 30
Lady Franklin, Alpine co.,	50c		Jan 6
La Victoire, Mariposa co.,	$2		Jan 3
Lady Bryan, Storey co., Nev.,	$1		Feb 5
La Fernandez, Sonora, Mex			Sale Jan 6
La Fernandez, Sonora, Mex			Sale, Jan 16
Mina Rica de las Flores, Calaveras co.,	50c		Jan 2
Maggie, Lander co, Nev.,	$4		Dec 26
Nevada, Lander co.,	$1.50		Jan 13
Napoleon, Calaveras co.,	$7		Jan 23
Nuestra Senora de Guadalupe, Durango,	$		Jan 27
New Idria			Meeting Feb 8
Oxford Beta, Esmeralda co., Nev.,	50c		June 27
Owen's River Canal co.,	40c		Feb 3
Ophir			Adjourned Meeting, Jan 15
Old Colony, Reese River,	$6		Jan 14
Open Sesame			Sale Jan 18
Overman, Storey co., Nev.,	$10		Feb 9
Paragon, Humboldt co.,	25c		Jan 6
Patrocina and Dolores, Chihuahua, Mex.,	75c		Dec 28
Peninsula, San Antonio, Lower Cal.,	$10		Jan 15
Rappahoc, Sinaloa, Mex.,	$2 50		Jan 17
Rappahoc			Meeting Jan 19
Salamander, Calaveras co., Cal.,	20c		June 27
Siempre Viva, Sinaloa, Mex.,	$2 50		Jan 6
Salambo, Tuolumne co.,	50c		Jan 3
Sierra Nevada, Storey co., Nev.,	$3		Dec 28
Sierra Valley, Plumas co.,	$1		Jan 5
Santiago, Lyon co., Nev,	$1		Jan 22
Sweet Vengeance, Yuba co.,	$1		Jan 20
Sierra, Douglas, co., Nev.,	$3		Jan 15
Shoshone, Lander co., Nev.,	$1		Jan 29
Santiago, Lyon co., Nev.,	$1		Jan 22
Trinidad and San Jose, Sinaloa Mex.,	$10		Jan 18
Tirita S M co.,	$3		Levied, Nov 25
Tuolumne Mountain,	50c		Dec 27
United States, Lander co.,	$1.05		Dec 30
Union Mattole, Humboldt co.,	$5		Jan 19
Wide West, Alpine co.,	$3		Feb 3
Yuba, Brown's Valley,	$3		Feb 3
Yankee Blade, Reese River, Nev.,	$15		Jan 13
Yosemite, Humboldt co., Nev.,	$1.25		Jan 20
Yellow Jacket, Storey co., Nev.,	$100		Dec 15
Zenith			Annual Meeting, Jan 15
"420," Storey co., Nev.,	$6.25		Dec 28

*These marked with an asterisk (*) are advertised in this ournal.

REV. ALEX. CAMPBELL, the leader of a reform in the Baptist Church, popularly known as "Campbellism," died lately in Kentucky. He was a brilliant debater, and one of the most profound scholars on the continent.

Metallurgy.

MOSHEIMER'S CONCENTRATOR

RECEIVED THE FIRST PREMIUM

From the ROYAL POLYTECHNIC SOCIETY, in Cornwall, and was highly recommended by the Commissioners as the most Simple and Effective Concentrator for all kinds of Ores.

Every Quartz Mill ought to have them, as they not only save Gold and Silver, but also the Quicksilver and Sulphurets, without extra labor. They can be built entirely of wood at the mine, and will separate more perfectly in one operation, than any other Concentrator in use. Apply to

J. MOSHEIMER,

23v11qy 423 Washington street.

EUROPEAN METALLURGICAL WORKS,

—AND—

Practical Mining School,

Bryant Street, Between Third and Fourth,

SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a squad practical knowledge of the business.

S. P. KIMBALL, J. R. MURPHY. 10v10

G. KUSTEL,

Metallurgist and Mining Engineer,

Stevenson House, corner Montgomery and California sts.

Ores Analyzed,

Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon. 20v11-3m

BOALT & STETEFELDT,

Metallurgists and Mining Engineers

AUSTIN, NEVADA.

Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

Copper, Lead, Gold, Silver,

Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

THOMAS PRICE,

Agent for Townshend, Wood & Co., Swansea,

No. 406 California Street, San Francisco. 15v10-3m

MARTIN & CO.,

Office, Stevenson House,

Corner California and Montgomery streets (up stairs).

WILL CONTRACT FOR THE

PURCHASE OF COPPER ORES,

Assaying eight per cent. and upwards of Copper to the

We will make advances upon Ores of Copper. San Francisco, Post Office Box 1253. 22

WILLIAM PENROSE,

Agent for Messrs. Vivian & Son and Dillwyn & Co., Smelters at Swansea,

Is prepared to buy in any quantity

COPPER, SILVER, GOLD, LEAD

AND OTHER VALUABLE ORES;

Also Lead Bars Containing Gold and Silver,

☞ Full value paid on delivery in this City. ☜

Address Lock Box No. 992, P. O., San Francisco. 25v10

REMOVAL.

MONS. A. COULON,

Informs his patrons that he has removed his DRAWING SCHOOL from Pine street to

410 Kearny Street.

Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done. 20v11-1m

FIRST PREMIUM

FOR REFINING COAL OIL,

At the Mechanics' Institute Fair, 1864.

The PIONEER PETROLEUM OIL WORKS CO. is now ready to advance money upon every kind of Mineral Oil, from five to one hundred thousand gallons, upon assays certified to by Professor E. Benoist. Office Hours—Before 10 o'clock A. M., or between 2 and 4 P. M.

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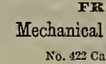

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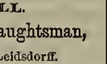

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A Business Compliment.

PETALUMA, Oct. 4, 1865.

MESSRS. DEWEY & CO.—Gentlemen: Your note informing me that my patent for Crushing and Baling Machine is ordered to issue is at hand. Please accept my thanks for the prompt and business like manner with which the case has been conducted, and inclosed find twenty dollars for balance Government fees. Respectfully, etc.,

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MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.

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23v11-1m 207 Commercial street San Francisco.

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No. 505 Clay Street, corner of Sansome.

Blanks for Mining Companies, Secretaries, Shareholders and others, always on hand, or printed to order, at our office.

Among others are those of the following forms:

Shareholder's Proxy.

Know all men by these presents, that I, ... do hereby constitute and appoint ..... my attorney and agent, for me and in my name, to vote as my proxy, at a meeting of the ..... Mining Company, to be held ..... 186 , according to the number of votes that I should be entitled to cast were I there personally present.

In witness whereof I have this day hereunto set my hand and seal. .....[Seal]

Dated 186

Assessment Notice.

..... Company

.....

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ..th day of ....., 186 , an Assessment of .....per share was levied upon the Capital Stock of said Company, payable on the ..th day of .....186 , in United States gold and silver coin to the Secretary.

Any stock upon which said Assessment shall remain unpaid on Saturday, the ..th day of ....., 186 , will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on ....., the ..th day of ....., 186 , to pay the delinquent Assessment, together with the costs of advertising and expenses of the sale. By order of the Board of Trustees.

..... Secretary.

Office.....

Notice.—There are delinquent, upon the following described Stock, on account of assessment levied on the ..th day of ..... 186 , the several amounts set opposite the names of the respective shareholders as follows, to wit:

Names.	No. Certificate.	No. Shares.	Amount.
Theophilus Thistle	23	14	$140 00
Peter Pipe	2	3	30 00

And in accordance with law and an order of the Board of Trustees, made on the ..th day of ....., 186 , so many shares of each parcel of said stock as may be necessary, will be sold at the.....

....., on ....., the ..th day of ....., 186 , at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

..... Secretary.

Office.....

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To Publishers.

An editor and practical printer, of good experience and recommendation, desires a situation and will accept a moderate salary on trial. Address this office.

THE STATES.—Thirty-six States were in the Union on the Fourth of July last We ought to get in three more by the next Fourth, so as to number thirty-nine at that time. "The old thirteen" would then be trebled in ninety years. They were doubled in sixty years, and thirty years should suffice to add a third thirteen to the constellation. Nebraska and Colorado are all ready to come in, and there should be no difficulty in finding a third among so many flourishing Territories as the restored Union possesses.

LAND PATENTS SHOULD BE RECORDED.—Parties obtaining land patents from the State or United States, appear not to be aware that such patents should be placed on the county records. It is said that many are neglecting this requirement, an omission which may entail much difficulty at some future time.

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An excellent, strong lad, from the interior, 17 years of age, desires to learn the Blacksmith's trade. His parents wish him to engage with a reputable firm, and learn his business thoroughly. Address, or inquire at the office of the MINING AND SCIENTIFIC PRESS. 2v11tf

Mining and Scientific Press

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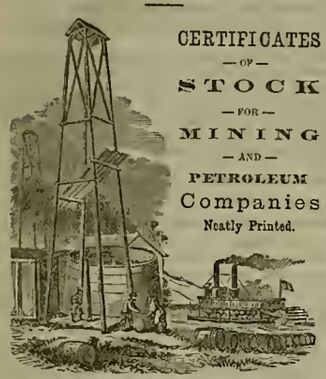
No. 505 Clay street, corner of Sansome.



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—FOR—
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Vulcan Iron Works Company

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HEATH'S AMALGAMATOR;
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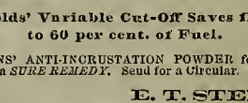

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FOR SALE only by Canvassing Agents, and at the Mining and Scientific Press Patent Agency, Book, News and Job Printing Office, 505 Clay Street, San Francisco.

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of ALVA L. STILES, deceased. Order to show cause why order of sale of real estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by John M. Stiles, the Administrator of the estate of Alva L. Stiles, deceased, praying for an order of sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts, expenses and charges of administration that have already accrued, and the debts, expenses and charges of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said Administrator to sell so much of the real estate of the said deceased, as shall be necessary for the purposes above-mentioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, } WM. LOEWY, Clerk.
{ cancelled. [Seal.] }

By A. J. JEGHERS, Deputy Clerk.

THOS. B. BISHOP, Attorney. 2v12-4w

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of SAMUEL L. DENNISON, deceased. Order to show cause why Order of Sale of Real Estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by O. E. McNear and Patrick Scully, who are creditors of said Estate of Samuel L. Dennison, deceased, praying for an order of Sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts outstanding against said deceased, the debts, expenses, and charges of administration that have already accrued, and the debts, expenses, and charges, of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said petitioners, authorizing and requiring the Administratrix of said estate to sell so much of the real estate of the said deceased, as shall be necessary for the purposes above-mentioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County, and that a citation issue to Maria J. Dennison, the Administratrix of said estate, and be served upon her at least four weeks prior to the time above-mentioned for said hearing.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand, and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, } WM. LOEWY, Clerk.
{ cancelled. [Seal.] }

By A. J. JEGHERS, Deputy Clerk.

PORTER & HOLLADAY, Attorneys for Petitioners. 2v12-4w

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Agawam Gold and Silver Mining Company, Union District, Nye County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 12th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
G O Altman	10	8	$ 8 00
C G Hays	11	7	7 00
E G Lamb	23	5	5 00
John W Stonner	35	5	5 00
Mills & Evans	38	50	50 00
Mills & Evans	40	10	10 00
Mills & Evans	42	5	5 00
Jerome Leland	59	10	10 00
Frank Barker	60	5	5 00
Geo F Stevens	66	5	5 00
A M Comstock	82	80	60 00
A M Comstock	13	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 12th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 826 Montgomery street, San Francisco, Cal., on the 27th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

C. M. BURNHAM, Secretary.

Office, 438 Jackson street. jan13

Blue Ledge Gold and Silver Quartz Mining Company, Kelsey Mining District, El Dorado County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 12th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm H Alley	bal 2003	2	$ 3 00
Wm H Alley	bal 2005	2	3 00
L H Allen	2668	10	15 00
L A Bly	1623	5	7 50
Judah Baker, jr	822	10	15 00
Judah Baker, jr	2674	5	7 50
R C Byxbee	842	10	15 00
R C Byxbee	843	10	15 00
J T Boyd	872	10	15 00
Warner Buck	2625	10	15 00
T L Barker	3043	50	75 00
T L Barker	3044	50	75 00
J C Collins	1683	20	30 00
J C Collius	1700	10	15 00
A E Crane	1720	10	15 00
Hugh Crockard	3032	10	15 00
Hugh Crockard	3034	10	15 00
E M Derby	2731	20	30 00
E M Derby	2732	10	15 00
E M Derby	2733	10	15 00
E M Derby	2734	20	30 00
E M Derby	2735	20	30 00
Edw Duckett	1500	10	15 00
W C Flint	3111	10	15 00
John J Foy	bal 2468	5	7 50
D L Fouts	bal 1131	5	7 50
Henry I Frey	1394	8	9 00
H M Fortune	3066	20	30 00
W N C Gardner	1538	5	7 50
Jos Godchaux	3053	50	75 00
Wm J Gunn	3127	10	15 00
Isaiah Harris	1703	4	6 00
J V Hollinsbead	3055	5	7 50
Daniel Hinckley	bal 1057	5	7 50
Daniel Hinckley	bal 2158	5	7 50
John V Hunter	bal 1969	4	8 00
Elisha Higgins	871	5	7 50
Elisha Higgins	2008	5	7 50
De Witt Hulse	bal 998	5	7 50
De Witt Hulse	bal 1571	5	7 50
De Witt Hulse	bal 1881	2	3 00
Elandor Heath	1572	10	15 00
Elandor Heath	1818	10	15 00
W B Holcombe	3117	50	75 00
Edw Jellings	578	2	3 00
H Kilham	1532	10	15 00
John W Loker	1820	15	22 50
I Livingston	1078	50	75 00
I Livingston	1748	5	7 50
I Livingston	1812	10	15 00
I Livingston	1816	10	15 00
I Livingston	3056	25	37 50
I Livingston	3100	70	105 00
I Livingston	3109	30	45 00
Robert Mills	1687	10	15 00
Margaret J McLeod	1404	1	1 50
John Martenstein	1492	25	37 50
John Martenstein	bal 1482	2½	3 75
F A Munroe	1954	20	30 00
F A Munroe	bal 1912	26	39 00
F A Munroe	bal 1920	26	39 00
E S Morrison	3114	50	75 00
John McMahon	3119	70	105 00
Jas Nelson	1552	30	45 00
Jas Nelson	1643	10	15 00
Jas Nelson	1650	20	30 00
Jas Nelson	1652	20	30 00
Mateo Redulla	2540	2½	3 75
Wm Rice	bal 2911	2½	3 75
Wm Rice	bal 2915	5	7 50
A Rosenfield	3062	5	7 50
Chas Smith	bal 2018	7	10 50
Chas Smith	bal 2175	7	10 50
Ann T Swain	1632	30	45 00
Ann T Swain	3101	5	7 50
Geo E Sherwood	2667	10	15 00
J F Storer	3118	70	105 00
J F Storer	3130	30	45 00
O B Shaw	1003	2	3 00
Oliver Taylor	1750	5	7 50
Oliver Taylor	3132	10	15 00
T F Tracy	bal 1584	5	7 50
Lewis Tease	748	5	7 50
H A Winter	218	5	7 50
Chas L Wiggin	2259	5	7 50
C L Wilson	2427	5	7 50
S H Wetherbee	bal 1309	5	7 50
Abram Warner	2666	10	15 00
Robt Wilson	bal 1478	11	16 50

And in accordance with law, and an order of the Board of Trustees, made on the 12th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 27th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. jan13

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

Consolidated Silver Hill Mining Company—Location of Works: Esmeralda District, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of January, A. D. 1866, an assessment of two dollars ($2) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, Room No. 15 Government House, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 10th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 21st day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

jan13 JOHN J. MACKENZIE, Secretary.

Nevada Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bradley, H W	71	15	$22 50
Brown, E J	108	15	22 50
Cutter, H F	95	2 1-8	3 25
Cutter, H F	99	30	45 00
Cutter, H F	116	6	9 00
Chevers, W H	19	15	22 50
Dinklespiel, L	107	7	10 50
Francis, D B	108	5½	8 25
Greene, Samuel H	70	19	28 50
Heath, R W	10	22	33 00
Knox, J W	113	13	19 50
Lander, P C	65	15	22 50
Lander, Amos C	97	20	30 00
Mills, H A	109	4	6 00
McDaniel, D	0	7½	11 25
Murphy, David	110	14½	22 00
Upton, M	111	8	12 00
Waterman, T A	33	25	37 50
Waterman, T A	34	25	37 50
Waterman, T A	35	20	30 00
Waterman, T A	36	10	15 00
Waterman, T A	37	5	7 50
Waterman, T A	38	5	7 50
Waterman, T A	39	5	7 50
Waterman, T A	40	6½	10 00
Williams, J J	69	7½	11 25

And in accordance with law and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Bendixen, Auctioneers, on the 28th day of January, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. jan13

Honest Miner Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Bertody, Chas	147	10	$ 5 00
Brooks, C W, Trustee	214	5	2 50
Cutter, H F	268	70	35 00
Cutter, H F	284	3	1 50
Cutter, H F	303	38	19 00
Cutter, H F	318	7	3 50
Chevers, W H	311	2	1 00
Frank, J	312	4½	2 25
Greene, S H	40	7	3 50
Howard, H O	209	10	5 00
Lander, P C	42	0	8 00
Lyle, T B	133	1	3 50
Reed, J L	313	4	2 00
Tilton, S S	183	10	5 00
Upton, M	314	1	50
Whitlatch, J W	64	5	2 50
Whitlatch, J W	67	5	2 50
Whitlatch, J W	68	10	5 00
Whitlatch, J W	69	10	5 00
Whitlatch, J W	109	5	2 50
Whitlatch, J W	242	10	5 00
Wendell, Medora	222	1	50

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Bendixen, auctioneers, on the 26th day of January, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. jan13

Joe Lane Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described Stock, on account of Assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Ayres, W O	152	8	$ 4 00
Aud, B A	159	29 11-16	14 33
Bradley, H W	8	5	2 50
Baker, Fred	105	10	5 00
Baker, Fred	106	10	5 00
Baker, Fred	107	10	5 00
Cutter, H F	142	5	2 50
Cutter, H F	158	81	40 50
Carroll, F P	119	90	45 00
Carroll, F P	131	20 13-10	10 40
Greene, S H	7	8	4 00
Heath, R W	151	34	17 00
Harrington, W C	153	2	1 00
Perley, D W	86	50	25 00
Statzler, J W	154	8	4 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Bendixen, auctioneers, on the 28th day of January, 1866, at the hour of 1½ o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. jan13

Mining Notices—Continued.

New Mining Advertisements to be found under another heading.

Notice.—The Annual Meeting of the stockholders of the AGAWAM GOLD AND SILVER MINING COMPANY, for the election of Trustees, and transaction of such business as may come before them, will be held at the office of the Company, 436 Jackson street, San Francisco, on Saturday, the 13th day of January, 1866, at 12 o'clock M.

dec18 G. M. BURNHAM, Secretary.

Animas Silver Mining Company—Location of Mines: Ventanas, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 30th day of December, 1865, an assessment of forty (40) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, pro tem., THOMAS HILL, at his office, No. 622 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

THOMAS HILL, Secretary Pro tem,

Office, 622 Montgomery street, San Francisco, Cal. dec30

Blue Ledge Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 2d day of January, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. jan6

Bunker Hill Quartz Mining Company, Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 27th day of November, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Samuel Carr	50	10	$ 50 00
Samuel Carr	51	23⅓	116 86⅔

And in accordance with law, and an order of the Board of Trustees, made on the 27th day of November, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by John Middleton & Son, San Francisco, on the 20th day of January, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WALES L. PALMER, Secretary.

Office, 19 First street, San Francisco. jan0

Chicago Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 25th day of November, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount
Bradley, H W	18	18	$32 00
Bradley, H W	51	6	12 00
Cutter, H F	78	14	28 00
Chevers, W H	25	11	22 00
Drinkhouse, J A	76	8	16 00
Dinklespiel, L	27	5	10 00
Francis, D B	13	10	20 00
Gayle, A B	74	17	34 00
Harker, W B C	35	5	10 00
Heath, R W	17	18	32 00
Knox, J W	67	11	22 00
Leppien, Fred	16	5	10 00
Turner, Anna K	26	5	10 00
Wightman, Jno	21	11	22 00
Whitlatch, J W	58	10	20 00
Whitlatch, J W	59	10	20 00
Whitlatch, J W	60	10	20 00
Whitlatch, J W	61	13	26 00
Williams, J J	54	5	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 25th day of November, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, 402 Front street, by Jones & Bendixen, Auctioneers, on the 15th day of January, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. dec30

POSTPONEMENTS.—We would again call the attention of Secretaries to a certain point of the mining law, too commonly overlooked, viz: The requirement that all postponements must be added previous to the expiration of the regular publication of assessment or sale notices.

VOLUME TWELFTH.—The MINING AND SCIENTIFIC PRESS, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

SUBSCRIBE FOR IT.—The large, illustrated sixty-four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

Dinna Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of December, 1865, an assessment of ten dollars ($10) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid before Saturday, the 20th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 6th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. The said assessment being levied to pay off balances of indebtedness for improvements recently made at the mine. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. dec23

Great Western Tunnel and Mining Company, Aurora, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of December, 1865, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

JOS. C. FORD, Secretary.

Office, No. 21 Exchange Building, corner Washington and Montgomery streets, San Francisco. dec30

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Assessment No. 9.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 26th day of December, 1865, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 13th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. dec30

Hornet Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 21st day of December, 1865, an assessment of one dollar ($1) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, 402 Front street.

Any stock upon which said assessment shall remain unpaid before Saturday, the 20th day of January, 1866, will be advertised as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 6th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. dec23

Hunsom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of December, 1865, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 20th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 3d day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. dec23

Jewett Gold and Silver Mining Company, Gold Hill District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
George E Willett	3	20	$20 00
A M Comstock	10	80	80 00
George E Willett	31	20	20 00
Wm H Bovee	82	40	40 00
James G Cooper	84	5	5 00
S R Harris	88	20	20 00
S R Harris	89	20	20 00
Wm H Bovee	102	60	60 00
J Fuller	108	38	38 00
Thomas Thwaites	117	8	8 00
E M Van Reed	127	20	20 00
Jacob Hardy	139	20	20 00
James C Cooper	143	19	19 00
G M Burnham	145	10	10 00
J M Lord	146	30	30 00
Wm H Bovee	151	16	16 00
James Wright	152	40	40 00
James Wright	153	40	40 00
James Wright	154	20	20 00
C E McNear	150	4	4 00
C E McNear	157	8	8 00
Edwin Tyler	158	51½	51 50
A E McNear	not issued	70	70 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of December, 1865, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the salesroom of Maurice Dore & Co., No. 327 Montgomery street, San Francisco, Cal., on the 20th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.

Office, 618 Merchant street, San Francisco, Cal. jan6

G. M. BURNHAM, Sec'y pro tem.

OUR NEW YORK AGENCY.

Mr. GEO. M NEWTON is our authorized agent in New York City, and will receive advertisements and subscriptions for the MINING AND SCIENTIFIC PRESS at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "STOCKHOLDER," No. 72 William street.

Kentucky Copper Mining Company, Mine Felix District, north of Copperopolis, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 20th day of December, 1865, an assessment of one dollar per share was levied upon the Capital Stock of said Company, payable on the 21st day of December, 1865, in United States gold and silver coin, to the Secretary, 644 Washington street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 20th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 7th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. A. BAUER, Secretary.

Office, 644 Washington street, San Francisco, Cal. dec23

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 7th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm Fido	unissued	7	$ 3 50
John G McCauley	unissued	12	6 00
C Larson	unissued	70¼	35 25
Andrew Willett	42, 43	9	4 50
C S Peak	47	7¼	3 75
Wm Mercer 57, 58, 59, 60, 61, 63 64, 65		70	35 00
Phillip Weibe	142	5	2 50
John F Davis	148, 161	11	5 50
John Sanquett	170	10	5 00
George Day	171	5	2 50
A H Powers	174	10	5 00
W N Lee	200	5	2 50
H J Tilden	212	5	2 50
Mrs P J Conch	216	5	2 50
Frank Rebel	218	2	1 00
E J Bacon	231	10	5 00
Frank Beitchman	235	5	2 50
James Wilson	236	5	2 50
Sarah M Davis	240	15	7 50
Daniel Davidson	244	5	2 50

And in accordance with law, and an order of the Board of Trustees, made on the 7th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at the office of the Company, No. 305 Montgomery street, San Francisco, Cal., on the 26th day of January 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. S. LUTY, Secretary.

Office, 305 Montgomery street, San Francisco. jan6

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 30th day of November, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
A W Webb	49	10	$ 2 50
A W Webb	87	65	16 25
A W Webb	88	35	8 75
William Packard	113	261	65 25

And in accordance with law and an order of the Board of Trustees, made on the 30th day of November, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the Company, San Francisco, Cal., on the 15th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, Room No. 2, 3d Floor. dec30

Leland Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 30th day of November, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
William Packard	50	50	$12 50
William Packard	52	50	12 50
William Packard	53	50	12 50
William Packard	88	100	25 00
William Packard	108	11	2 75

And in accordance with law and an order of the Board of Trustees, made on the 30th day of November, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, San Francisco, Cal., on the 15th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.

Office, Room No. 2, 3d Floor, 302 Montgomery street, San Francisco, Cal. dec30

Owen's River Canal Company, Tulare County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of January, 1866, an assessment of forty (40) cents per share was levied upon the assessable stock of said Company, payable on the 8th day of January, 1866, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. BIBBINS, Secretary.

Office, 618 Merchant street, San Francisco, Cal. jan6

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

ELECTROTYPE CUTS, ENGRAVINGS, ETC.—Our Job Printing Office is abundantly supplied with elegant engravings, ornaments, and other embellishments to suit the various branches of industry in this State.

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of December, 1865, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the said 22d day of December, 1865, in United States gold and silver coin, to the Secretary, or to the Superintendent at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 14th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

CEO. H. PECK, Secretary.

Office, corner Broadway and Sansome streets, San Francisco. dec30

Paragon Petroleum Company.—Location of Works: Mattole District, Humboldt County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
J W J Pierson	33	25	$0 25
J W J Pierson	34	25	6 25
J F Pinkham	24	20	5 00
J F Pinkham	25	20	5 00
J F Pinkham	26	20	5 00
J F Pinkham	27	20	5 00
J F Pinkham	28	20	5 00
A H Bowley	aggregate	23	10	6 00
R G Brown		29	50	12 50
R G Brown		30	50	12 50
R C Brown		31	50	12 50
R G Brown		32	50	12 50
R C Alden		35	100	25 00
R C Alden		36	100	25 00
R C Alden		37	100	25 00
J H Earle	aggregate	38	5	4 25
J H Earle	aggregate	39	5	4 25
J H Earle	aggregate	40	5	4 25
J H Earle	aggregate	41	5	4 25
J H Earle	aggregate	42	5	4 25
J H Earle	aggregate	43	5	4 25
J H Earle	aggregate	44	5	4 25
J H Earle	aggregate	45	5	4 25
J H Earle	aggregate	46	5	4 25
J H Earle	aggregate	47	5	4 25
F E Moore	aggregate	61	10	7 00
E D Waters, Jr		63	50	12 50
A T Dewey	aggregate	65	70	40 00
W B Ewer		66	100	25 00
W B Ewer	aggregate	67	70	40 00
J F Crossett		77	100	25 00
J J Mills	aggregate	80	10	6 50
A Riker		81	50	12 50
W B Lake	aggregate	85	50	29 00
J P Cogswell		88	50	12 50
Samuel S Field		100	120	30 00
Samuel S Field		101	120	30 00
J V P Mathias		103	20	5 00
J V P Mathias		104	20	5 00
J V P Mathias		105	20	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co, at No. 626 Montgomery street, San Francisco, Cal., on the 26th day of January, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

M. J. McMANUS, Secretary.

Office, No. 206 Jackson street, San Francisco. jan6

Siempre Viva Silver Mining Company, Zaragora District, Sinaloa, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 2d day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bayorque, J B	10	100	$250 00
Canavan, P H	236	1	2 50
Canavan, P H	240	10	25 00
Fischer, Chas	148	2	5 00
Garnett, L A	110	25	62 50
Garnett, L A	111	25	62 50
Garnett, L A	112	16	40 00
Garnett, L A	113	10	25 00
Larco, N	166	10	25 00
Mel, H	201	2	5 00
Chay Wo Sac	184	5	12 50
Ah Ye	222	5	12 50
King Yan	234	5	12 50
Wong Ten Heu	229	5	12 50
Cui Cheng	230	5	12 50
Lo Park	231	5	12 50
Ah Shut	232	7	17 50
Pon Jib	233	3	7 50
Cbong Tung	235	20	50 00
	ALSO,		
Fischer, Chas	148	2	$ 5 00
Garnett, L A	110	25	62 50
Garnett, L A	111	25	62 50
Garnett, L A	112	16	40 00
Garnett, L A	113	10	25 00
Chay Wo Sac	184	5	12 50
Cbong Tung	235	20	50 00

For account of assessment levied 23th July, 1865, advertised as delinquent 29th August, 1865, and offered at auction 9th September, 1865, but no bidder—

And in accordance with law, and an order of the Board of Trustees, made on the 21 day of Decomber, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of John Middleton & Son, on the 20th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

jan6 JOHN F. LOHSE, Secretary.

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. THE MINING AND SCIENTIFIC PRESS PATENT AGENCY has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

Calendars for 1866.—The MINING AND SCIENTIFIC PRESS JOB PRINTING OFFICE is prepared to execute every manner of Counting-house Calendars and advertisements for various business men, on short notice and moderate terms.

Salamander Gold and Silver Mining Company, Hill Valley District, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of December, 1865, an assessment of twenty (20) cents per share was levied upon each and every share of the capital stock of said company, payable on Friday, the 29th day of December, 1865, in United States gold or silver coin, to the Secretary, 121 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

F. D. GALLAGHER, Secretary.

Office, No. 35 Metropolitan Block, San Francisco, California. dec30

Union Mattole Oil Company, Humboldt County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 15th day of December, 1865, an assessment of five ($5) dollars per share was levied upon the capital stock of said Company, payable on the 16th day of January, 1866, to the Treasurer of said Company, at his office, 517 Jackson street, San Francisco, State of California.

Any stock upon which said assessment shall remain unpaid on the 19th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on the 6th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

C. WINTER, Secretary.

Office, 517 Jackson street. dec23

United States Gold and Silver Mining Company, Ravenswood and Santa Fe Districts, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 23d day of November, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names	No. Certificates.	No. Shares.	Amount.
Fuller, Silas	1	300 bal	$233 00
Sharp, Ceo F	2	300 bal	136 00
Cannon, J M	3	300 bal	315 00
Clarke, F M	6	100 bal	45 33
Lashier, Frank	8	150 bal	145 50
Clarke, Ceo E	9	225 bal	142 25
Sawyer, Leander	10	300 bal	136 00
Fuller, R R	13	125 bal	131 25
Schuster, J S	14	124 bal	130 20
Baumer, George	15	125 bal	131 25
Schutze, Henry	16	125 bal	131 25
Plummer, M D	18	37½ bal	26 38
Stock, John	19	150 bal	18 00
James, D B	26	37½ bal	39 38

And in accordance with law, and an order of the Board of Trustees, made on the 23d day of November, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Maurice Dore & Co.'s Salesroom, No. 327 Montgomery street, San Francisco, on Monday, the 15th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.

Office, 618 Merchant street, San Francisco. dec20

Wide West Gold and Silver Mining Company. Location: Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of January, 1866, an assessment of three ($3) dollars per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 330 Davis street, San Francisco, or to F. L. JACKSON, Superintendent, at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 21st day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOSEPH GREEN, Secretary.

Office, 330 Davis street, corner of Washington street, San Francisco. jan6-4w

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of January, 1866, an assessment of three dollars ($3) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 210 Pine street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 17th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up stairs, San Francisco.

N. B.—The above assessment is for the payment of balance due on machinery, and its erection at the mine. ja6

Yosemite Silver Mining Company, Oro Fino District, Humboldt county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of December, 1865, an assessment of one dollar and a quarter ($1.25) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, 402 Front street, San Francisco, or to J. T. MACLEAN, Superintendent, Star City.

Any stock upon which said assessment shall remain unpaid on Saturday, the 20th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 6th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. O. PUTNAM, Secretary.

Office, 402 Front street. dec23

PRINTING FOR THE HOLIDAYS promptly executed in any style to suit tradesmen, at our JOB OFFICE, 505 Clay street.

Nothing makes the earth seem so spacious as to have friends at a distance; they make the latitudes and longitudes.

Wit in Fast Colors.—It is said that the author of the "Petroleum V. Nashy" letters is a negro by the name of D. R. Locke.

A Chinese Decision.—The Chief of the Bureau of Arts and Sciences at Pekin has made a favorable report on the question of railroads, and decides that the use of steam is not dangerous to the people!

Chinese Voting in Australia.—At a recent election in Australia, the naturalized Chinamen voted for the first time, being allowed to do so by the proper authorities.

A movement so general as to indicate concert has been developed for the emigration of old and infirm persons from Ireland. Evidently, the Fenians do not desire to have their parents subjected to the dangers of the rebellion they propose to inaugurate.

Removal.

The Office of the Mining and Scientific Press has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive Job Printing Office.

San Francisco, April 10th, 1865.

Economy in Advertising.—The Mining and Scientific Press is the best and most economical mining advertising medium in this city. Our terms are less than one half the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The Press contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on the coast.

Deserved Testimonial.

Grizzly Flat, Oct. 18, 1865.

Messrs. Hungerford & Hendy—*Gentlemen:* We have run your Concentrator for several days past, in our 5-stamp Mill, and, as far as can be ascertained at present, it is a perfect success. When running at the rate of from two hundred and ten to two hundred and twenty-five revolutions per minute, we have lost neither quicksilver nor sulphurets. Formerly, when using copperplate riffles and blankets, we found that in spite of the utmost precaution, quicksilver would escape over them all. Wishing you all success, we remain Your obedient servants,

E. A. BIGLER.
S. F. DAVIS.

17v11qy

MINERS

Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.

Gold, Silver and Copper Ores bought in any quantity.

Assay of Ores made by a new Fire Process in half the usual time, and at half price.

Apply to **J. MOSHEIMER,**
23v11qy 423 Washington street, San Francisco.

QUARTZ OPERATOR'S HAND BOOK.

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,
Authors and Publishers.
Bound in Cloth—144 Pages, Duodecimo.

The Quartz Operator's Hand Book is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

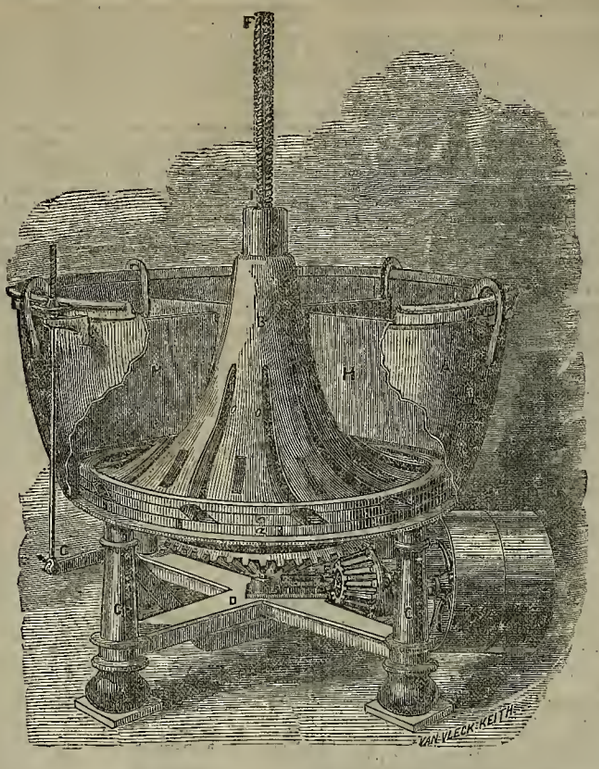
The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner.

Professor Silliman, of Yale, and Hedgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable Quartz Miner's Hand Book.

The Table of Contents of this book will be found on pa 415 of the Mining and Scientific Press of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11



THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and o, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,
WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.

San Francisco, June 13, 1865.

LICK HOUSE,

Corner of Montgomery and Sutter streets, SAN FRANCISCO.

S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests. 15v11

CLOTHING MADE FROM CALIFORNIA CLOTH,

For Wholesale and Retail Trade,

ALSO, CLOTHING MADE TO ORDER,

AT QUINCY HALL,

Nos. 545, 547 and 549 Washington Street,

SAN FRANCISCO, CAL.

19v11-3m

VALUABLE PATENT RIGHT FOR SALE.

The patent right for the United States of a valuable invention can be secured at a bargain by applying at this office. The article is one of general application throughout civilization.

DEWEY & CO., Publishers.

RUGGLES' PRINTING PRESS

For Sale or Exchange.

The Proprietors of the Mining and Scientific Press have on hand a Half Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,
[Office, 505 Clay street.

THE STYLE

—FOR—

Fall and Winter, 1865,

Will be Introduced Aug. 26, at

MEUSSDORFFER'S HAT MANUFACTORIES,

Nos. 635 & 637 Commercial st., San Francisco,

No. 125 J st., bet. Fourth & Fifth, Sacramento.

Corner D and Second Streets, Marysville. 12v11

WE ARE NOW OFFERING OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LOW PRICES.

J. R. MEAD & CO.,
8v10 Cor. of Washington and Sansome streets.

SAN FRANCISCO CORDAGE MANUFACTORY.

CONSTANTLY ON HAND,

A Large and Complete Assortment

—OF—

MANILA CORDAGE,

FOR MINING PURPOSES.

—ALSO—

WHALE LINE, BALE ROPE, ETC.,

Manufactured from Pure Manila Hemp.

Hoisting Ropes for Deep Shafts,

—ALSO—

Lines for Ferry Boats,

Manufactured to Order.

Office at **TUBBS & CO.'S,**
Nos. 611 and 613 Front street
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JOHN TAYLOR & CO.,

—IMPORTERS AND DEALERS OF—

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

We are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco, March 6, 1865. 11v10-tf

CHARLES BERNARD,

MANUFACTURER AND DEALER IN

Family Chartres Coffee,

AND SPICES OF ALL KINDS.

No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.

First Premium Awarded

BY THE MECHANICS' INSTITUTE,

FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has new increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to. 15v11-3m

OIL WELL BORING.

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Contractor

For Well Boring and Erecting all kinds of Machinery connected therewith.

Having had extensive experience in boring for oil in Pennsylvania, Canada and elsewhere, I feel confident of being able to give entire satisfaction. Persons desirous of making contracts as above, or wishing information with regard to oil indications, etc., will please address me at the office of the "Mining and Scientific Press," San Francisco, or to my personal address, Box 1229 San Francisco. 2v11

MINING PROPERTIES.

Parties wishing Mining Properties can be accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble. 1v12

Engraved to Order.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st

THE CANDLE FISH is one of the most curious members of the finny tribe. It is caught on the coast of British Columbia, where it is extremely common, and proves very useful to the natives. Some idea of its character and value may be gleaned from the fact that they use it as a lamp, the light given being very considerable. The fish, when dried, has a piece of rush pith, or strip from the inner bark of the cypress tree, drawn through it to serve as a *wick*, a long needle, made of hard wood, being used for the purpose; it is then lighted, and burns steadily until consumed. It is said that one can read comfortably by its light.

MINING INCORPORATIONS FOR 1865.—Eighty new gold, silver and copper mining companies were incorporated during the past year, representing a capital of at least thirty millions of dollars. Of petroleum oil companies, eighty-seven were incorporated, representing a capital of sixty-five millions—in all, not less than ninety-five millions of dollars contributed to the capital of the State during the year 1865—provided said capital is genuine. Three cotton companies were also organized.

How long Eve, the first woman, lived, we do not know. It is a curious fact that, in sacred history, the age, death, and burial of only one woman, Sarah, the wife of Abraham, is distinctly noted. Woman's age, ever since, appears not to have been a subject for history or discussion.

WHENEVER you find a great deal of gratitude in a poor man, take it for granted that there would be as much generosity if he were a rich one.

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, MR. TURNER HAMILTON, at the Assembly Building, 106 South Tenth street, Philadelphia, Pa., where samp copies of our publications can always be found.

Travelling Agent.

MR. ROBERT LATTIMORE is now on a canvassing tour for the PRESS through Butte, Colusi, Tehama, Shasta, and Siskiyou counties, and we recommend him to the favorable consideration of our friends.

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1861, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

Machinery.

Important to Miners.

NEW PATENT ROASTING PROCESS.

I AM NOW PREPARED TO OFFER TO THE MINING community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A Furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day.

MORE COMPLETELY AND CHEAPER

Than any other Process. All the Sulphur is saved, by being converted into Bisulphide of Carbon, which is a valuable product, and will pay nearly all expenses.

For particulars, apply to

J. MOSHEIMER,
26v11-3m 423 Washington street.

FOR SALE!
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Can be seen running at the San Francisco Pioneer Woolen Factory, Black Point. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

HENDY'S
IMPROVED BLOW-PIPE.
This Convenient Helpmeet

—TO THE—

ASSAYER, CHEMIST, DENTIST, JEWELLER, PROSPECTOR AND MILLMAN,

Can now be procured, at the Patentee's price, by sending your orders, by mail or otherwise, to the

Office of the Mining and Scientific Press.

This article was more fully mentioned in the PRESS of April 15th, 1865. Since that time, however, Mr. Hendy has made a further improvement by attaching a rubber hose between the mouth-piece and the pipe, enabling the blower to change his position without disturbing the direction or constant accuracy of the current on the object upon which it is turned. The main portion of the blow-pipe is made with a joint, at which a valve is placed, which is opened when the operator blows and closed immediately when he ceases. By this arrangement the little bag or bladder is readily filled at a single breath, and with very little exertion. When so filled, a continuous current of air is forced from the nozzle of the pipe by the mere contractive force of the gutta percha. This force is uniform until the air is very nearly exhausted. The current may be easily varied or entirely cut off by gently pressing the fingers upon the neck of the bladder above the nipple to which it is attached.

Price, Complete.....$5,00.
CALL AND EXAMINE SAMPLES.

Sent by mail, if desired. Address

DEWEY & CO.,
16v10-tf No 505 Clay street, San Francisco

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,
Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; no trace of gold nor mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

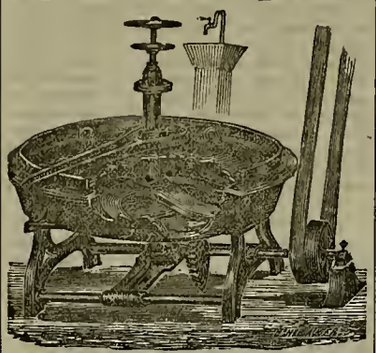
5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD'S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,
Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. [Illustrated in the Mining and Scientific Press, April 9th, 1864.]

HEPBURN & PETERSON.
Nov8 3m*

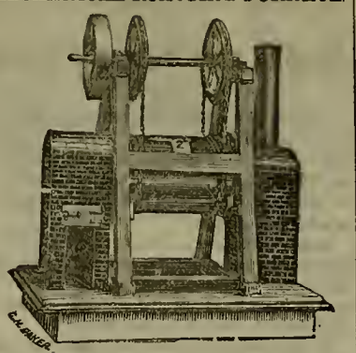
HUNT'S PATENT
Circular Sweep Horse-Powers,

For running Churns, Washing Machines, Grindstones, pumping water, sawing wood, and other light machinery. Price, $100, at the Factory.

HUNT'S PATENT SELF-REGULATING TREAD HORSE-POWER is superior to any machine of the kind in the market. Price, with Governor, all complete to set to work, at the Factory, $300. Manufactured by

E. O. HUNT,
7v10 28 Second street, San Francisco.

The Mechanics' Institute
AWARDED A
PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
12v11 416 Market street, San Francisco.

HUNT'S
IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person, and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN
HORSE POWER
For Sawing Wood.

ALSO, THE

Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.

☞ For further Particulars see small circulars. ☜

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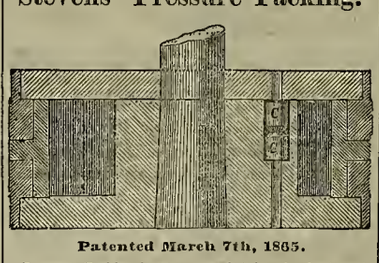
No. 28 Second Street, and 108 & 112 Jessie Street, San Francisco. 26-3m

DENIS WHELAN,
Fashionable Boot Maker

REPAIRING NEATLY DONE, AT SHORT NOTICE.

No. 17 Fourth Street,
Near Market street, San Francisco.
15v10-Im*

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df **ANDREW STEVENS.**

SALMON'S
PROPELLOR AMALGAMATOR
—AND—
Challenge Settler

Has been in use and thoroughly tested, both in California and Nevada, with entire satisfaction to all parties concerned. These Machines are

Made entirely different from any others,

And with the same power will grind, amalgamate, settle and separate, more gold and silver ore than any others now in use. Manufactured at the SAN FRANCISCO FOUNDRY, where Machines can be seen in operation. Address

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ARROW TIE.

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STOW'S
PATENT CHAMBER DRILL.

The greatest Labor-saving Machine ever invented for Quartz Mining. By using this Drill in shafts, tunnels, and all other rock blasting, three-fourths of the labor and over one-half of the powder will be saved. The Drill makes a chamber directly at the bottom of the hole, at any depth you wish, six times the area of the original hole, in all kinds of rock, in less time than a man can drill a 1½ hole two inches deep. Requiring no tamping, it will be impossible to have a premature blast.

AT THE STATE FAIR held in Sacramento, September, 1865, a Committee, after examining both the Lincott's and Stow's Chamber Drills, reported as follows:

We, the undersigned, Committee on Mining Tools, do award to Henry M. Stow, of San Francisco, the FIRST PREMIUM for the best Chamber Drill for blasting rock, for the following reasons:

1st. For simplicity of construction.
2d. For durability of drill.
3d. For strength of drill.

The above Drills will be sent to any part of the State for $30, with one set of Cutters or Chisels that will chamber from 75 to 150 holes. Extra Chisels furnished at $2 50 per set.

The Drill may be seen at Mr. BUFFINGTON'S Office, No. Government Block, corner Sansome and Washington streets, and at No. 511 Market street.

Drills will be delivered to any part of this State free of expense to the purchaser. Any information desired, or orders for Drills, address

STOW & COLLINS,
San Francisco

Oil Wells! Oil Wells!!

I received at the last STATE FAIR a special Premium for the best Expanding Drill for boring oil wells. The above Drill will bore the hole from ½ inch to 2 inches larger than the inside of the pipe or tubing of the well, if desired, making the bore perfectly straight and round. The Drill can be attached to and work with any common drill at an expense of from $25 to $50. I will furnish all machinery for boring, or will take contracts for boring wells, and furnish steam engines and all tools required. Address,

HENRY M. STOW,
14v11 San Francisco.

WATER WHEELS!

Equal to the Best Overshot Whee

POWER PLEDGED

IN EXISTENCE.

LEFFEL'S
AMERICAN DOUBLE TURBINE

Is now manufactured by the Vulcan Iron Works Company, in this city, and orders for the same can be filled immediately. We have a large supply of the different sizes, from 10 inches to 30¼. That we may know the proper sized Wheel you require, measure your water in the following way: Take the width of the stream, the average depth, and the distance it flows in a minute.

All the Wheels already in use give universal satisfaction. For particulars send for a Circular.

This Wheel is especially adapted to mining purposes. It is light, and can be easily packed into the mountains. Wheels weighing from 100 to 300 pounds, will yield from 10 to 40 horse-power under a head of 25 or 30 feet. They are the cheapest wheel to set up known, as they are so arranged as to produce the greatest power possible from the water used.

Come and see them, or send for a Circular to

LEFFEL & MYERS,
At Vulcan Iron Works, office 137 and 139 First street, San Francisco. 4v11tf

VARNEY'S
PATENT AMALGAMATOR.
These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The carved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setters made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setters for themselves, at the **PACIFIC FOUNDRY,**
1v1 San Francisco.

MITCHELL'S
COMBINED
FAUCET AND MEASURE.

This is one of the most useful inventions of the day, and is destined to go into universal use on this coast, as it has in the Eastern States.

The invention consists of a combined Faucet and Measure, so arranged that the liquid contents of any cask or other vessel can be drawn and accurately measured without the use of measures or funnels other than such as are embraced in the Faucet itself. While it obviates altogether the use of measures, it operates much more perfectly than the old method of drawing and measuring such liquids as have a tendency to foam up when drawn, as coal oil, linseed oil, etc.

The Proprietor has made arrangements with GALLACHER, WEED & WHITE, of the California Brass Foundry of this city, for the manufacture of this Faucet, and is prepared to furnish the article or sell territories. Here is a chance for men with small capital to invest in a good business.

Residence, 820 Taylor street, near O'Farrell street.

D. C. MITCHELL, Prop'r.
San Francisco, Aug. 22d, 1865. 10v11-3m

QUARTZ MINING NEAR AUBURN.—We have been shown, hy Mr. George A. Treadwell, a rough diagram of a mineral district situated at Ophirville, three miles helow Auhurn, Placer county, which presents eome very interestiog features, and is indicative of a valuahle tract of mineral country. The diagram exhihits a eeries of fourteen east and west lodes, crossed at right angles hy six north and south lodes. Theee lodes vary from two to four feet in thickness, and are from one hundred to five hundred feet apart. Two of the east and west veios carry considerahle silver, and two others a notahle quantity of copper. All the balance containing of the precious metals, gold only. These veins are found to he much the richest at the points of crossing. The sulphurets are said to assay from $1,000 to $3,000 to the ton, wben properly concentrated. A company has been formed which proposes to cut all of these veins hy a tunnel, running diagooally through hoth series; all that have heen discovered, twenty in numher, will he cut hy running this tunnel 4,500 feet, draining the lodes from eeventy to seven huodred feet in deptb. Thie project can scarcely fail to he a most profitahle one for hoth the projectors and the vein bolders. There are three quartz mills already at work upon rock which ie heing takeu from these veins, as follows:

A steam mill running ten stamps, owned hy Mr. Welty, and employs for amalgamatiug four of Varney's pane—recently started with flatter-ing proepecte.

A 5-stamp mill owned by Mr. Snohle, uses blankets, but no pans. This mill nets about $500 per week, saving the free gold only, and runniog away a large amount of valuahle sulphurets.

A 7-stamp mill, driven by a 30-foot overshot water-wheel, is run hy Mr. Pugh. He uses an arastra for grinding his sulphurets; but the yield is emall, as he does not roast them. He has no pans.

No value whatever has been placed upon the sulphurets ohtained from these ledges. Recent experiments, however, having sbown that they are very rich in gold, arrangements will soon he made for roasting them. Our informant, Mr. Treadwell, bas just organized a company, which consists of Messrs. Daniel and Moses Choate, of Ophirville, and eeveral parties in this city, who will proceed at once to erect a fourth mill on two of the ahove veine, known as the North Star and Lady Lincoln. The company will put up a 10-stamp mill at the start, to he increaeed in capacity as circumstances may warrant. They will also put up a roasting furnace for desulphurizing the sulphurets. The mill will he run hy water-power, which can be obtained from the Bear River Ditch, at a cost of $30 per week, running night and day.

THE FIRST BRICK ever made from bullion taken out of the Gould & Curry mine, is still preserved in the office of tbe company in Virginia City. It was taken out in 1860, is principally of silver, and worth ahout $100. It is about five inches long, three inches wide aud three-fourths of an inch thick, aud its value, as heing the first hrick from that noted mine, is far more than its intrinsic worth as mere hullion.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property aud Business Places of every description, in the city and throughout the State; procures partners with largo and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Prater's Patent Concentrator

(Known as HUNOERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 DEVOE, DINSMORE & CO.

Subscribe Now!

1866 JANUARY 1st, 1866

Commencement of Twelfth Volume

—OF THE—

Mining and Scientific Press

The title of our journal is a truthful expression of its character.

It affords a class of progressive information to the Miners, Mecbanics and Professional Men of the Pacific Coast, which cannot he dcrived from books, or other publications.

Each Volume comprises, in reality, a book of new intelligence and facts relating to Mining, Mechanism, Metallurgy, Science and Art, developed by our rich and peculiar resources, and identical with our own industry and history.

By the encouragement of intelligent economy in LABOR and GOLD-SAVING, we shall make the PRESS a source of INDIVIDUAL PROFIT to its patrons, as well as a public hencfit to every local community in which it circulates.

The prospects of our journal are now hrighter than at any former period. Our facilities for furnishing a valuable journal are constantly increasing.

Following are some of the many opinions generously expressed by our neighbors:

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Should be taken by every man owning "feet" [and brains] in this State.—[Beacon.

In no other ten journals can the reader find the same amount of reliable mining news as in the PRESS.—[Contra Costa Gazette.

Every stockholder in different mines will find it will pay to take and read this mining journal.—[Contra Costa Gazette.

The PRESS is to the Pacific Coast what the "Scientific American" is on the Atlantic. It deserves its success.—[Aurora Daily Times.

It is fully up to the times, and furnishes the latest mining improvements and intelligence.—[Calaveras Chronicle.

Every miner should subscribe for the PRESS.—[Calaveras Chronicle.

It presents a channel through which all mining notices may be cheaply consolidated into one sheet for the convenience of all stockholders.—[Mountain Messenger.

We can give our testimony that it is always replete with useful and valuable information to miners and mechanics. [Placer Herald.

It contains correspondence from different sections, giving accounts of new discoveries in gold, silver and copper, and should be taken by every person that wishes to keep well posted on the developments of our State and the Territories.—[Mountain Messenger.

With the last number is an index to the whole volume, most useful and valuable to those who keep files of that paper.—[Shasta Courier.

Prof. J. D. Whitney's address on Mining, is given entire. * * * We preserve the PRESS, and would like to have a full file.—[Napa Reporter.

The public should support the enterprise of the MINING PRESS, one of the best papers in the State, by a liberal patronage, as it is only by a system of legitimate reports that our mines can be favorably brought before men of capital below.—[Calaveras Chronicle.

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A good paper for this country.—[Humboldt Register, Na.

Those who would have a good paper of this character, should subscribe now.—[Marysville Appeal.

It embraces one of the finest fields in the world, and seems to improve it. * * * It will be second to no scientific record now published on this continent.—[Los Angeles News.

A neat and useful journal. One of the most presentable and useful in the State.—[Sunday Mercury.

Such a journal has been needed on the Pacific Coast. The PRESS fills the bill.—[Reese River Reveille.

A splendid paper, and should have a good list of subscribers in prosperous Grass Valley.—[G. V. National.

We receive, regularly as clock work, this exceedingly valuable and interesting journal.—[Napa Reporter.

Interesting and important to miners and Mountain men. [Butte Record.

Friends pleased with our efforts in the publication of the PRESS can render us essential aid by furnishing correspondence and all important information which may come under their observation, and by calling the attention of their neighbors to the commendable features of the paper; the appreciation of which favors will be duly manifested by the constant improvement of our journal.

Specimen copies will be sent free to those desiring to examine the paper before subscribing. Postmasters, Express Agents and News-dealers, acting as our agents, will receive liberal commissions.

SUBSCRIPTION IN ADVANCE.

One Year, (two volumes)..... $5.00
Six Months, (one volume)..... 3.00

☞ BOUND VOLUMES FOR SALE.☜

FOR ADVERTISING

Our terms are very reasonable. MINING COMPANIES are especially favored by our rates, and careful attention is given to the legal publication of MINING NOTICES.

OFFICE—No. 505 Clay street, corner of Sansome.

DEWEY & CO., Publishers.

C. W. M. SMITH .....W. D. EWER.....A. T. DEWEY.

1852. 1866

A NEW VOLUME.

Fourteenth Year of Publication.

THE GOLDEN ERA.

Founded in 1852.

The oldest Weekly Paper in the State, permanently established, and more widely circulated at home and abroad than any other on the Pacific Coast. In California, the Atlantic States, and throughout the entire field of its great and rapidly increasing circulation, THE GOLDEN ERA is universally regarded as a Literary and Family Journal of unequalled excellence. Among its contributors are all the best writers on this side of the Continent, and correspondents of distinguished ability in New York, Paris and London.

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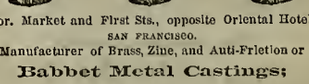

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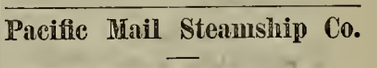

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SAN FRANCISCO, SATURDAY, JANUARY 20, 1866.

VOLUME XII. Number 3.

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CALIFORNIA MINERS' STATE CONVENTION.

The Convention assembled at Dr. M. C, Briggs' M. E. Church, Sixth street, Sacramento, Wednesday, January 17th, and was called to order by A. J. Snyder, President of the Mining Bureau, at 2 o'clock. Mr. Snyder proceeded to read the Call for the Convention as follows:

Pursuant to the request of several mining journals and representative mining individuals, the association known as the "California Mining Bureau," of San Francisco, through their Board of Trustees, have issued the following call for a Mass Convention of the miners of California:

RESOLVED, That a Mass Convention of the miners of the State of California, be and is hereby called to assemble in the city of Sacramento, on WEDNESDAY, the 17th of January, A.D. 1866, at 12 o'clock, and that any person engaged in actual mining operations shall be eligible to a seat in said Convention.

JOSEPH W. LOW, Vice-President.
J. A. WARREOMB, Recording Secretary.
San Francisco, December 6, 1865.

On motion of Mr. Foulke, Hon. A. A Sargent, of Nevada, was elected temporary chairman, and took his seat amidst hearty applause. Mr. Sargent said:

Gentlemen of the Convention: Although the clouds are lowering and the rain falling fast, I congratulate you upon this auspicious day. Congratulate you upon this excellent weather, dear to all miner's hearts [applause]; and I regard this weather as the appropriate herald of our appearance here. For three years past, miners of California, we have had dry seasons. The heavens, even during our winters have, for the most part, been as brass, and everything has been parched and dry. While there has been some compensation for that to the quartz miners, because it has led to larger investments of capital, labor and energy in the development of that branch of mining, yet in respect to the interests of our placer mines, it has been almost disastrous. And at the same time we have sympathized with every portion of our State which has suffered from the same cause. We felt sorry that our agricultural friends, upon whom we depend for the staff of life, should have had the springs of their prosperity dried up. We meet here to-day in no spirit of exclusiveness. If the mining interest prospers, if we are enabled to take out large amounts of the precious metals from our mines, if they are fostered and developed as they should be, then we in the mining districts shall furnish fine markets for the manufactures of San Francisco, for the farmers' throughout the State, and all the interests of the State will prosper. We are all contributors to a common end, all portions of the grand machinery, and we prosper or suffer together. Nothing can be truer than that agriculture is one limb of the State, or of the business interests of the State, mining another, and manufacturing another, and it is necessary that decay shall be kept from each in order that the whole body may be sound. [applause.] There are peculiar reasons why this Convention should be assembled here to-day. A pregnant fact was that which a few days ago was telegraphed across the continent to us, that when that bill prepared by Senator Sherman, of Ohio, and which I may properly characterize as a bill to create confusion in the mining districts of the country, was introduced in Congress, and when a resolution was telegraphed back in response, stating that the people of California were opposed to the sale of the mineral lands, that response was received by Mr. Sherman and others with astonishment. Why, gentlemen, if they knew barely the A B C of the mining interests of this State and the adjacent States and Territories, they must have known that such a law would inevitably work most irretrievable confusion, not only to the mining but to all the business interests of our communities. Here are mining interests and business interests which have been going on and intertwined for the last fifteen or sixteen years, and it is proposed now to dissever them at a blow without drawing blood. It is impossible.

The speaker proceeded to refer to some of the most absurd and impracticable features of Mr. Sherman's bill, his remarks being received with emphatic approval, and his closing sentence as follows:

It is, take it altogether, a bill of abomination, as I have no doubt every miner will regard it. I am sorry that the impression should have prevailed at Washington that we in California favor anything of the kind, and I think it is time that an emphatic voice should go forth from us, announcing that we are unqualifiedly opposed to it. I have no doubt that it will be the tone, as I conceive it to be the principal business, of this Convention.

M. D. Boruck, Warren B. Ewer, and Charles Westmoreland, were elected Secretaries.

A Committee on Credentials was appointed by the Chair, consisting of one member from each county, viz.:—Alameda, E. D. Waters; Alpine, W. A. Johnson; Amador, L. McLean; Butte, Charles Waldeyer; Calaveras, Robert Briggs; El Dorado, J. J. Williams; Humboldt, J. F. Heustis; Klamath, L. H. Murch; Mono, Bryant; Nevada, Wm. Watt; Placer, C. J. Garland; Sacramento, John Bigler; San Francisco, A. J. Snyder; San Joaquin, P. J. Merwin; Sierra, J. W. Moyle; Siskiyou, A. J. Luttrell; Sonoma, J. L. Downing; Tulare, J. W. Freeman; Tuolumne, Allen Oliver; Yuba, A. F. Williams; Yolo, C. F. Reed.

It was voted that persons actually interested in the ownership or working of mines, who are present from counties not represented, be admitted without credentials.

After a session of about three hours, the meeting adjourned until 7 o'clock P. M., for the purpose of giving the Committee on Credentials time to prepare their report.

The Convention is a large and animated body. The church was crowded. Some of the prominent mining counties are represented with quite large delegations, while all are commendable for the intelligence and earnestness of their representatives.

It is a matter of congratulation that the actual miners of our State have come out in sufficient force to assert and maintain their right to be heard and to act for themselves.

We rejoiced in seeing the wide-awake and alert spirit manifested by mountain members, and to observe the premeditated schemes of the "light mining brigade" collapse most beautifully at the first touch by the hands of the miners.

EVENING SESSION.

The Committee's report on credentials was adopted, with a resolution disallowing the reception of proxies by any one, but reporting in favor of the admission of substitutes.

The roll of members, as hastily furnished us by the Secretary on Thursday, is as follows:

ALAMEDA.

E D Wheeler	John Wilson
H V Robinson	H J Burr
Thomas Engar.	

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W A Johnson	E E Egen.

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J W Lane	Thos Luckett
H M Hughes	E Wilber
W H Thomas	John A Rush.

CONTRA COSTA.

Joel Clayton.	

DEL NORTE.

S P Wright.	

EL DORADO.

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S Schriber	Thos Aldersoa
J F Kidder	George Blanchard
H W Foster	—— Reed
Jas Hutchings	Thos Frazier
John Hitcheas	J J Williams
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E Northey	Wm Derglor
T R Walker	A Neece
A B Brady	John Nye
J C Colemaa	Benjamin Fenton
W H Miller	O Crandall
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J S Locke	C H Chamberlain.

[*Continued on Page* 40.]

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE AGE OF GOLD-BEARING ROCKS.

BY PROFESSOR ROWLANDSON, F. G. S. L.

NUMBER XI.

AN ATTEMPTED RECONCILEMENT OF OPINION.

The attentive reader, who has followed me throughout, will have inferred that, so far as causation is concerned, the writer makes no difference between ordinary mineral veins containing copper or lead only, or where such are associated more or less with argentiferous and auriferous minerals. I consider it highly probable that the two last named were only very recently erupted to the earth's surface, as compared with many copper and lead veins found in the olden Paleozoic rocks; also that where veins are found to contain gold and silver in notable quantities in the more ancient strata, a careful investigation will generally establish the fact that such argentiferous and auriferous minerals were injected during a very recent geological era. If subsequent inquiries establish, as a fact, the opinion just set forth, it may easily be conceived that the theory which assigns the formation of the most productive gold and silver veins, to a recent date, is intimately related to, and in some measure explains why it is probable that many such may exist in rocks of secondary or even more recent age.

In illustration of the above views, as well as another to be afterwards alluded to, I will respectfully call Sir Roderick Murchison's attention to the lesson exhibited, as respects mineral veins by a portion of Siluria, which, so long as geology remains a science, will ever form its most classic ground—the vicinity of the Longmynddand the Stiper Stones which divides the unmetalliferous district of the Longmynddfrom the highly metalliferous (galena) ores of Corndon and Shelve, accompanied, as the later is, by the protrusion of igneous rocks, whilst the Longmynddis devoid of such.

The Longmynddforms the lowest strata of the Silurian series, being, in fact, the base line of the entire system. This district, unmetalliferous and non-erupted, is divided by a sharply-defined and almost right line, at the Stiper Stones, from the eruptive and metalliferous rocks composing the Corndon and Shelve; yet, the latter, in the order of position, is superior to the former, of which fact there does not exist the slightest doubt. It follows, therefore, as a necessary consequence, that the igneous rocks of the Corndon and Shelve must have first penetrated the underlying Longmynddrocks before they could have protruded through the Lingula and Llandeilo flags, which are superposed on the Longmyodd rocks; unless, as might occur according to a theory held by many, viz., that the action of a central heat has been sufficiently intense to render fluid the underlying Longmynddrocks, which afterwards were ejected in the form of the Plutonic rocks now seen* in the district. The entire absence of igneous rocks in the Longmynddand their abundance in the Corndon and Shelve district, lends considerable aid to the view that igneous rocks are frequently, if not geoerally, the result of the igneous metamorphism of pre-existing alluvial strata. Additional corroboratioo of the soundness of this theory is afforded by what is found to occur in a nearly identical manner in Merionethshire, the western part of which county, forming a considerable district to the eastward of Harlech, consists of rocks identical in age with the Longmynddistrict. Here, also, there are no erupted rocks and no mines; but the traveler no sooner passes into the district coosisting of the Llandeilo flags than he meets with igneous rocks accompanied with copper, lead, silver, and gold ores.* I suspect, however, the date of the irruption of the rocks in this part of Wales is much later than those found in the Corndon and Shelve. Although Sir R. Murchison has seeo fit to color in his map a large part of the Isle of Anglesea as crystalline metamorphic rock, I make very little douht hut a closer examination will establish the fact that this effect has heeo caused in consequence of the internal heat being locally more powerful, or by its more continued actiou in Anglesea than in the Shelve, has occasioned a more perfect metamorphosis. The celebrated Parys copper mine, the most prodoctive copper mioe ever known, is situated in thie district, accompanied also by a vein of sulphide of lead, copper, zinc, silver, and gold. The vein last alluded to was ejected most probably after the main mass of copper ore had heen deposited.

We have only to admit the theory above set forth, to render it probahle that any of the ordinary metallic veins may he found peuetrating the more recently-formed rocks. In this manner the long series of Laurentian, Silurian, Devoninn, and even carboniferous rocks, which possibly formed Paleozoic Califoroia, may have become fluid and partially erupted in their metamorphic form, near their previous place of deposition; hut a far larger portion probably rolled in earthquake waves to distant points, in order to compose the bases of future Alps, Andes, Rocky Mountains, Himelahs, etc., or portions of lutore Sandwich Islands or Australins.

Allusion may again be briefly made to the vicinity of the Longmynddin order to illustrate the possibility, under a given set of circumstances, of auriferous veins penetrating the more recently-formed strata of the earth's surface. It has already heen noticed how free from plutonic eruption are the lowest rocks of the Silurinn series, forming the Longmynddwhilst the adjoining and superior metalliferous strata of Llandeillo flags, known as the Corndon and Shelve districts, are intersected throughout by igneous rocks bearing a general course from northeast to southwest. At the extreme oortheast point of the Longmynddhowever, igneous rocks exist, to a limited extent, and similar bosses are to be seen at various points to the eastward, extending in length several miles. The rocks last referred to, if synchronous with similar rocks of the Corndon and Shelve districts, the surface indications would lead to the inference that the igneous agency which caused the outflow of plutonic rocks in the Corndon and Shelve, in place of pursuing the northeast and southwest course, as found in the metalliferous region, became deflected from the north towards the east, in consequence of the presence of the Liassic† outher, which is seen about seven miles to the northeast of the Longmynddand about fifteen miles from the extreme northeast point of the Corndon and Shelve. It would not he unreasonable to infer that had the course of igneous agency continuously followed a northeast direction in place of being deflected therefrom, plutonic rocks might possibly have heen protruded through the Jurassic outline alluded to, and accordiug to circumstances accompanied also by metalliferous veins‡. Such effects might have been produced by more ways than one—first, in consequence of more intense or longer-continued igneous action occurring beneath the parts occupied by the Lias formatiou; or secondly, as previously remarked, by the older and lower formations being liquified and metamorphosed in consequence of the effects of intense internal heat. It is possible, also, that the line of igneous activity was deflected from the northwest and northeast towards the east, owing to greater resistance which other things being equal may he assumed to have been opposed to an outflow of igneous rocks through modern accumulations, in consequence of the greater weight and thickness of the latter. Mineral matter in a molten state would follow ordinary hydrostatic laws, and, accordingly would penetrate the lines and points of least resistance with an intensity corresponding to the originating dynamic force.

It is probnble, that to the circumstance just noticed, may be ascribed the fact that so many gold districts in various parts of the world are found in the Salurian zone, notwithstandiog the most positive evidence exists in many cases that the auriferous veins inclosed in the Paleozoic strata were filled at a much more recent period than that of the deposition of the rocks through which they protrude. Another circumstance may occur having a tendency to occasion similar appearances, to illustrate which the reader's attention is requested to observe what might be fairly assumed to occur, if intense igneous forces, actiog from below, had pushed up the Silurian beds lying below the Liassic strata, so as to protrude through the latter. In such a case, the soperior Liassic would be pushed outwards on the flanks of the former, at a greater or less angle, according to circumstances; and if the elevation originated subaqueously, the fact would be calculated to conspire towards a more speedy abrasion of the ruptured overlying rocks, and also facilitate the subsequent diffusion of the comminuted particles, in which case the prior, sub-lying, silurian rocks, so denuded, would occupy a large part of the surface previously covered by the Liassic formation. Assume a step more—namely, that a metalliferous vein, which, for this occasion, let us conceive to he auriferous, and we have the parallel of many gold fields. The reason why I have drawn my illustration both of actual and hypothetic comparison from the portions of Siluria above described, is because I know of no part of the earth's surface where not only has the geology been so well worked out, but also that it would, perhaps, he difficult to find, as around the Stiper Stones, another place, where within a radius of fifteen miles so wide a range in superposition of strata can be found as is exhibited in the small compass named, extending, as it does, from the base of the Silurinn system to the Jurassic, and accompanied by a variety of igneous and metalliferous phenomena, allied in general character to the present investigation; for it must he borne in mind that the writer makes no distinction with respect to metallic veins, so far as causation is concerned, whether such ore is composed principally or in part of gold, silver, copper, lead, etc., notwithstanding which, I may state that I deem it probable that future researches will show that their formation took place in time in the inverse order set forth—lead being the oldest and gold the youngest—and that possibly the lead-producing districts of Corndon and Shelve, and those of Wisconsin, Iowa, etc., will be found to form the base line of the metalliferous system.

* It is noteworthy that the galena of the Corndon and Shelve districts is of a very superior character, and much sought, for the purpose of making white lead, but almost devoid of the precious metals, not containing more than 2 oz. of silver to 2,240 lbs of lead.

* It is in this district that the gold mines are found which have recently attracted attention. In 1846, whilst collecting information for an essay which obtained a prize of $250 from the Royal Agricultural Society of England, I was shown by a miner some fine gold mixed with galena.

† Called Jurassic by French and many other geologists.

‡ The writer is quite aware that many objections can be raised to such an assumption, and not without good reasons; to rebut such, would, however, require an entire treatise on metalliferous veins. On other points the reader is requested not to be hypercritical—for instance, igneous action may possibly have commenced at the east and proceeded westerly, or the two sets of igneous rocks may, on subsequent inquiry, be found not to be synchronous.

Miners' Meeting at Grass Valley.—We learn from the *Gazette* that a meeting of miners was held at Grass Valley on Saturday evening, 13th inst., and the following persons were elected delegates to attend the Miners' State Convention, which met at Sacramento on Wednesday: William Watt, Thomas Findley, Capt. Lee, Wm. Daniels, G. D. Roberts, S. D. Bosworth, W. H. V. Cronise, James Powning, E. Northey, L. R. Walker, A. B. Brady, J. S. Coleman, A. B. Dibble, P. Roberts, R. Leech. R. A. Fisher, W. Clift, J. S. Bayliss, Con. Reilly, and J. I. Sikes. The meeting adopted a series of resolutions declaring that the miners of Grass Valley are opposed to any legislation concerning the mines, by the Legislature of California or by Congress; that they are opposed to any monopoly of timber or timber lands by railroad or other companies; that they regret the reported action of the Government in issuing patents to the railroad company to an immense domain of mineral and timber lands; that they are opposed to the main features of Pattison's bill in regard to mining claims; and indorse the action of the Legislature in requesting delay in the issuing of patents to the railroad company.

Mining about Monte Diablo.—Several companies are working cinnabar mines at Monte Diablo. The Contra Costa *Gazette* says the prospects of the Welch Quicksilver company are flattering. The stock has suddenly risen from nothing to ten and twelve dollars per foot. The Keokuk company are working on a vein of rich ore eight inches thick, and rapidly widening. The Open Sesame company are driving in a four hundred-foot tunnel, with encouraging prospects.

A Hint for California Swamp Land Owners.—Johnsoo Watson, of Scipio, Laporte county, Ind., raised this year, saye the Stockton *Herald*, 1,100 bushels of cranberries on a 10-acre marsh. Cost of gathering and marketing, $100; net profit, $4.500.

Gen. Meade expresses the opinion that 25,000 men belonging to the Army of the Potomac are living, who have been disabled by wounds and are incapable of self-support.

[Written for the Mining and Scientific Press.]

The Navigation of the Colorado River.

Editors Mining and Scientific Press:—I take the present opportunity to give you a few facts in relation to the successful navigation of the Colorado river by Capt. Thomas E. Truworthy, of the New Pacific and Colorado Steam Navigation Company, for a distance of of 600 miles from its mouth to a point within 360 miles of Salt Lake City. Why the great advantages of this important hut hitherto misrepresented stream has not been known until within the last twelve months, is a question which is daily propounded by those who are unacquainted with the influences which have been brought into requisition by those who have, from the commencement, opposed the object of the late successful enterprise of navigating the same. It would hardly appear probable that a movement of so much interest to this State, the Territories, and the general Goverument, would have met with so much violent and continued hostility, from all combination navigation companies, which are indebted to the patronage of the people for all that they are, and more especially at a time when it is of the utmost importance to California that all the avenues of trade should be open up to counteract the effects of the departure of business and population from this State, which has been and still continues to be kept up to an alarming extent.

Over two years ago, at the wishes of the miners and others of Arizona, I came to San Francisco to secure, if possible, additional steamers to meet the increasing demands of business on the Colorado. I was opposed in carrying out my mission by causes, the true nature of which I could not at that early day understand. Capt. Truworthy conseuted to come to the relief of those who had so long been compelled to submit to the imposition of those who controlled for years the old line of steamers on the Colorado. Previous to his departure, he made an arrangement to have his steamer, schooner and barge, insured in San Francisco, upon the same terms as policies were given to other vessels going to the same destination. You can imagine what was the surprise of Capt. Truworthy, when informed that the policy would not be granted *unless he paid seventy per cent. more* than was previously agreed upon. I mention this fact to show that the system of injustice inaugurated against the enterprise at that early day, has been adhered to up to the present time, and that, too, by persons controlling a wealthy corporation, who were insensible to the demands of the State, and the duty they owe to the National Government.

Upon the arrival of Capt. Truworthy at the mooth of the Colorado, *without insurance*, he at once became the center of the most violent hostility of those controlling the old line (who have since adopted his mode of navigating the river), assisted by others connected with the combination navigation company of California. Under these circumstances, he started his enterprise to prove the capability of the navigation of the river a distance of 600 miles from its mouth, and to show, by as practical demonstration, that he was able, by individual enterprise, to accomplish more than the old line had done in ten years, or than Lieut. Ives had been able to accomplish at an expense of over one hundred thousand dollars.

At Fort Yuma all accommodatioo was refused Capt. Truworthy, with the exception of a single isolated car, whilst the old line could have favors frequently granted them by those in charge of the fort, when they had done nothing for the Government except to carry freight at exorbitant prices. The Captain made several trips with his steamers and barges, with three times the amount of freight which had originally been carried by steamer to La Paz and Fort Mojave at the highest and lowest stage of water.

The manner of carrying freight by barges was pronounced at the time as a "humbug;" but you can see by the notices in the *Alta* that the old company's ships now coooect with "their steamers and barges," and have given,

hy this, their fullest approbation of the "humbug" or manner of navigating the river, as introduced hy Capt. Truworthy. The successful accomplishment of this end is of immense value to those depending on the navigation of the Colorado for their supplies, as they can thus be taken at all seasons of the year. It has produced a complete revolution in the navigation of this hitherto misrepresented river. At La Paz, 300 miles from the mouth of the river, a delegation from the Mormon settlement at Callville, came to secure a steamer to take a load of freight to that point. They had built a large warehouse at the head of navigation. The request was at first made to those having charge of the steamer of the old line. This was refused, on the ground that it was impossible to ascend the river. Capt. Truworthy then consented to make the trip with his steamer and barge, containing over one hundred tons of freight.

"A bill was at this time before Congress to secure an appropriation of $150,000, for the benefit of the old line, to remove impassable obstructions said to be in the river, but which did not exist."

Scarcely had the steamer and barge started on her destination, when parties were sent aboard to prevent persons having wood from selling the same to Captain Truworthy, and even to cut the timber on each side of the river, which was done to the letter, and for thirty miles scarcely a tree was left standing. Having been informed of this system of vandalism, the precaution was observed to take on board the barges a sufficient quantity of wood to pass through this barren waste. It might well have been supposed that the efforts to thwart the object of the expedition from the time it was undertaken at San Francisco up to this time, would have been exhausted; but this was not the case. Additional parties were set ahead to Callville, stating that it was impossible to reach that point, and that the enterprise had been abandoned; in consequence of which the Mormons, who were expecting the goods, returned to the settlements, and to Salt Lake City, leaving two persons in charge of the warehouse. Still the steamer and barge kept on their way, and not stopping until the object of this difficult enterprise had been accomplished, thereby successfully demonstrating that the Colorado river was navigable for steamers and barges for 600 miles from its mouth, without a fraudulent appropriation of $150,000 from Congress. Here, upon the face of the rocks, which stand like giant sentinels, 1,000 feet in hight are inscribed the day and date of the arrival of the steamer in letters so broad and conspicuous that even the combination navigation company can never deface them. Our arrival fully established the fact that steamers could ascend this river at all seasons.

To show how little confidence is to be placed sometimes in the expeditions undertaken by Government, it is only necessary to say that the impassable locality, known as "Explorer's Rocks," where the diminutive steamer "Explorer," fifty-four feet long, had struck, and returned seven years before, proved to be nothing but an isolated rock, on each side of which there was a smooth surface of water, from ninety to a hundred feet in breadth, having a current of only two miles an hour, with an average depth of from six to ten feet. This river was lower than when the Explorer ascended the same. But, notwithstanding this, the steamer Esmeralda, 116 feet in depth, went far above, towing a barge 124 feet in length, and capable of taking on board two steamers of the size of the Explorer.

As we descended the river to El Dorado Canon, the most magnificent scenery burst upon our view. At each change of position, new and startling beauties were revealed, the grandeur of which is so different from that of other rivers that the mind can scarcely realize that what it sees is reality. All the colors of the rainbow can here be found, extending far over the highest peaks, or confined within the narrow compass of a few hundred yards. To these favored localities the admirer of Nature can come with the fullest assurance that he can here look upon scenery which, in grandeur and magnificence, is unequalled on the American continent.

This communication, which has by individual enterprise been opened up for the population of the center of the continent with the Pacific coast, can never be closed. Soon the vast gold, silver, and copper resources of Arizona will be fully appreciated, and hundreds of thousands of people will receive their goods by way of the Colorado river.

At the urgent solicitation of the miners and Mormons, Capt. Truworthy and myself consented to cross over the country from the head of navigation to Salt Lake City, 360 miles. We found an excellent road for the entire distance. Twenty miles from the river we came to the first settlement. From that point to Salt Lake we passed through *forty-two cities and towns*, with a population of over 60,000 people. Agriculture here is certain, as the water for irrigating purposes is conveyed from the mountains to the valleys. Cotton is also raised, and cotton mills are in operation. The farmer has an excellent market for all he can raise among the miners, who are rapidly filling up Idaho, Utah, and Montana Territories.

At Salt Lake City the news of the success of this enterprise was particularly gratifying, as all felt the assurance of being able to obtain their freight from the Pacific coast at all seasons, at from one-third to one-half less cost than by any other route. Meetings were held in the city to give expression to the feelings of the community, and it was decided to have their emigration, amounting to about 20,000, come by way of the Colorado river.

A telegraphic line has been established to the head of navigation from Salt Lake City. Should the population increase in Utah, Idaho, and Montana, for the next year as rapidly as it has for the last twelve months, three important States will soon be formed out of them.

A number of merchants recently came to San Francisco from Utah and Montana to purchase goods; but such was the course taken then respecting the currency, that they were reluctantly compelled to finally make their purchases in New York. When it is remembered that more than 16,000,000 lbs. of merchandize were last year brought into Utah territory alone, over the arid and desolate plains which separate that territory from the Atlantic States, some conception may be formed of the benefits which would accrue by the diversion of this immense trade to San Francisco. This is but the beginning of the commerce of the region penetrated by the Colorado River. If the proper enterprise is manifested by the people of San Francisco, they can have the benefit of a trade second to that of no other city. This has been fully demonstrated by Capt. Truworthy, who has from the commencement of the enterprise labored against the most bitter and continued opposition on the Colorado river, and in San Francisco.

Arriving in this city from Salt Lake, after accomplishing so much for the benefit of the State and General Government, in opening up a way by which the latter can save three millions of dollars yearly, the hostility against Capt. Truworthy was again renewed; but under a different form from that which has already been referred to. Suits were instituted against him, to the end that he might be prevented from returning to the scene of his triumph, so that the combination company of this State, acting in concert with the old line, might have the same control over the Colorado that the former has on each of the navigable waters of California. Being fully aware of the expenses Capt. Truworthy had already incurred, and was incurring on the river, and having unlimited capital, the joint corporations expected, by the system they were inaugurating, to reap the benefit of his exertions, and to drive him from the field. Over five thousand dollars were due from the combination navigation company to Capt. Truworthy. This was refused, and continues to be refused to be paid; but the captain was informed that he could have his claim, provided he *did not* return to the Colorado river.

Here is the grand secret to the opposition, as carried into effect against the enterprise of navigating that river, from the time it was first undertaken until its successful consummation. This will explain why the most prominent men connected with the combination company, and the swarms of idlers who are influenced by it, and have been so active in preventing stock being subscribed to the new Pacific and Colorado Steam Navigation Company. It was not enough that Capt. Truworthy should be deprived of his just claim. The lumber owned by him at the mouth of the river was clandestinely carried away in his absence; the pumps and machinery of his vessel lying there, were taken and brought to San Francisco for sale, by one of the schooners connecting with the old line; his private letters were broken open, and their contents examined by persons occupying prominent positions in the community, and who, at the locality of their guilt, and by their influential friends in San Francisco, availed themselves of the knowledge thus obtained, to persecute and harrass an enterprising and deserving man, whose only offense consisted in coming to the aid of a struggling community, and in successfully navigating an important river,

These, Messrs. Editors, are but *a few* of the obstacles placed in the way of an enterprise which has, notwithstanding all this, resulted in complete success. I should not refer to these things thus publicly, did I not feel that it was a duty I owe to Capt. Truworthy (whom I succeeded in inducing to go to the Colorado over eighteen months since), that the facts should be laid before an honest and discriminating community. The contest of individual capital and enterprise, against the continued and unceasing efforts of two wealthy corporations, has been long and difficult. But success has resulted in the cause of Justice. The State of California and the city of San Francisco; will feel the benefits of this movement, so important to each from the difficulties under which they labor at the present time.

Cast your eyes, Messrs. Editors, over this State, and see the melancholy result which has been produced by a dangerous centralization of capital and power, as exhibited in the combination company of California: Steamers rotting at your wharves; towns hastening to decay; a thousand public pensioners sustained by the country, and exhausting the vitality of the Commonwealth; population leaving the country; capital seeking investment in other localities; manufactures receiving no impetus; the mineral resources of the State not one half developed; agriculture, the substrata of a nation's greatness, neglected and impoverished, whilst hundreds are rising to affluence in a single night by money taken from the honest masses of the community, who are but ill prepared to meet the constant drain which has been made upon them. The day will yet come when the oppressive capital which has almost ruined the State will be compelled to recognize the claims of the community; and that a combination company will find that by resorting to a deliberate conspiracy to prevent some, and to the bullet and the knife to strike down those who will not accede to their bribes or be intimidated by their threats, is adopting an alternative which will react upon themselves.

Let the facts go before the people, regarding the actions of those who have set at defiance the laws of the country and of humanity, and who have been so far emboldened as to treat the rights of the community as if they were but the titled dignitaries of the chess board. We live under a free government, where all are guaranteed the absolute rights of personal security and private property, and the combination company of California, and that of the old line, on the Colorado, may find to their regret that it is dangerous to trifle with the feelings of an outraged community.

I must close my remarks, feeling that I have already wearied your patience. The interest which has been manifested by the miners and others to know the facts in reference to the navigation of the Colorado, is the reason I have in this instance deviated from my purpose, which was to remain silent upon the subject matter of this communication, and to leave time to do justice to our connection with the successful navigation of the most important river running into the Pacific ocean.

Thanking you for the commendable interest you have manifested in this enterprise,

I am truly yours,

SAMUEL ADAMS.

A SINGULAR CASE OF TOOTH DISEASE.—Dr. Emory L. Willard, of La Porte, submitted to our inspection, a few days since, a singular monstrosity, which consisted of a tooth which he extracted in May, 1862, from the jaw of a Chinaman, in La Porte, Sierra county. Some eight years previous to the extraction, the Chinaman in question was seized with a violent tooth-ache, which resulted in inflammation and ulceration, and a final absorption, by the system of the diseased fang or root of the tooth. After this process had ceased, a disease of rare occurrence, but known in the books as *costosis*, set in. This disease consists of an effort of Nature to restore the absorbed root; but in this case Nature seems to have overexerted herself. Instead of stopping when she had restored the root to its original dimensions, she kept on with the work until the root had attained the enormous size of 1⅜ of an inch, one inch in width, and five-eighths in thickness, independent of the tooth itself. The disease had been of fourteen years' standing when Dr. Willard was called to the patient. All this time there were regular running fistulas opening through the cheek; having in the time created seven different points of opening at as many different periods of time. The tooth was removed by the excision of the jaw-bone, one-third of which was cut away in the operation. We have a photograph of this monstrosity upon our table, which the curious can examine at their leisure. A full report of this extraordinary case will be published in the next number of the San Francisco *Medical Journal and Press*, accompanied by an engraving.

A MAN has just taken out a patent, says an exchange, for luminous hats. They will, he says, preserve the wearers from being run over at night, and to some extent will prove a saving in the lighting of streets.

Arizona.

A month or two ago the friends of the Hon. R. C. McCormick, Secretary of the Territory of Arizona, gave him a sumptuous dinner at the Astor House, in New York. On the occasion the Hon. C. D. Poston, delegate from the Territory, made an eloquent speech, wherein he said:

Arizona is the classic land of pioneers, and has a history not inferior in interest to any portion of the American continent. The first pioneers of Arizona were, in the opinion of the illustrious Humboldt, Asiatics, and reached the land of Ophir by Behring's Straits. They have left monuments of their industry in Arizona marking their era with indubitable evidences of civilization.

A lonely citadel stands near the Pima village, in the midst of a desert, as the only milestone of time left to mark the passage of this race. The house has five stones yet remaining, and was surrounded by a city covering an area of some ten miles square, watered by canals from the Gila River. Of this race little or nothing is known. No historian has recorded their rise and fall. No poet has celebrated their deeds of love or arms. The old "Casa Grande" stands in solemn majesty, the sentinel of the desert, mourning for its lost children. The next pioneers were the proud Hidalgoes of old Spain, who bore the banner and the cross from Vera Cruz to San Francisco. Indomitable in war, and zealous in religion, they marched with the torch of civilization in one hand and the crop of faith in the other. They were noble men, and nobly did their work. The monuments of their devotion are spread from Cape Horn to Oregon. The first to enter Arizona was the renowned Cabezo de Vaca, who crossed the continent from the Savannah of Florida to the mountains of Arizona in 1538.

In this remote region they found villages of stone, inhabited by an intelligent race claiming European extraction. These are now called Moquis or Mokes, and inhabit northeastern Arizona.

The next pioneers were Americans. In the year 1824 a party of about 100 hardy and adventurous frontiersmen set out on a trapping expedition to the headwaters of the Arkansas river. After many romantic adventures in New Mexico, the party dispersed and a few of the boldest spirits undertook to reach the Pacific Ocean. * * *

In the year 1853 the Gadsden Treaty was made, by which we acquired that narrow strip of land which forms the southern district of Arizona. In their eagerness to secure a southern route for a railroad to the Pacific, the politicians of that day overlooked the substantial advantages to be gained by a port on the Gulf and outwitted by Mexican diplomacy, parted with $10,000,000 in hard gold without leaving us egress to the sea. With a port on the Gulf of California, the vivifying streams of commerce would soon vitalize Arizona, and extract from her virgin bosom wealth which it would seem fabulous to predict.

LIQUIDATION OF THE NATIONAL DEBT.—According to the official figures, the national indebtedness was reduced nearly thirteen million dollars in September, or at the rate of one hundred and fifty-six millions a year. Such an energetic process of liquidation would result in the discharge of all the national pecuniary obligations in about twenty years.

UNRELIABILITY OF GOVERNMENT AGENTS.—The cotton agents dispatched to the South, by all accounts, are a very enterprising set of officials. It is now thought that out of the 120,000 bales of Confederate cotton surrendered the Government will not get 10,000. The Secretary of the Treasury is reported to have recently remarked that he found it almost impossible to get suitable men to transact that sort of business.

THE Campo Seco Copper Mining company shipped from the mine, during the year 1865, 1,902,501 pounds of copper ore. The Taunton Copper Smelting company, whose works are located at Campo Seco, and have been in operation during the past three days only, have within that time shipped 193,605 pounds of copper regulus.

HOW HISTORY IS MADE.—The English publishing house of Rutledge & Sons have just issued a volume entitled "Men of the Time," in which, among other startling facts, the reader finds that General Sherman was compelled to abandon Atlanta, and fleeing eastward escaped to the sea.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Monday, January 15.

AFTERNOON SESSION.

1 sh Yellow Jacket at 420 per foot, s 30.
4 shs Yellow Jacket at 455 per foot.
1 sh Yellow Jacket at 460 per foot.
1 sh Yellow Jacket at 445 per foot, s 10.
1 sh Yellow Jacket at 452½ per foot, s 3.
1 sh Savago at 660 per foot, h 60.
3 shs Savage at 650 per foot, s 30.
1 sh Savage at 655 per foot.
1 sh Savage at 660 per foot.
1 sh Savage at 665 per foot.
1 sh Savage at 665 per foot, h 5.
8 shs Gould & Curry at 830 per foot,.
10 shs Chollar-Potosi at 136 per foot, s 30.
6 shs Halo & Norcross at 310 per foot, s 3.
5 shs Imperial at 110½ per share.
15 shs Imperial at 110 per share.
10 shs Imperial at 109 per share, h3.
5 shs Imperial at 110 per share, h 30.
5 shs Imperial at 107 per share, s 10.
10 shs Imperial at 109 per share.
5 shs Imperial at 108 per share, h 10.
5 shs Imperial at 108 per share, h 3,
5 shs Imperial at 108 per share.
10 shs Imperial at 106 per share, a 10.
10 shs Imperial at 105 per share.
10 shs Imperial at 107 per sharo.
20 shs Imperial at 106 per share.
15 shs Imperial at 100 per share, s 60.
5 shs Imperial at 95 per share, s 60.
30 shs Exchequer at 8¼ per share.
20 shs Bullion at 36 per share.
10 shs Lady Bryan at 2¾ per share.
32 shs Sierra Nevada at 10¾@10½ per sh.
10 shs Sierra Nevada at 11 per share.
Amount of sales.....$108,327 06

Tuesday, January 16.

9 shs Savage at 670@680 per foot.
2 shs Savage at 675 per foot, s 3.
2 shs Savage at 670@675 per foot, s 10
2 shs Savage at 66¾ per foot, s 30.
1 sh Savage at 675 per foot, s 3.
44 shs Chollar-Potosi at 235@236 per foot.
14 shs Yellow Jacket at 460@470 per foot.
8 shs Yellow Jacket at 440@420 per ft, s 30.
1 sh Yellow Jacket at 450 per foot, s 8.
1 sh Yellow Jacket at 447½ per foot, s 30.
3 shs Yellow Jacket at 450@315 per ft, a 3.
16 shs Yellow Jacket at 450 per share, a 3.
36 shs Ophir at 310@315 per foot.
72 shs Ophir at 330@315 per foot, s 5.
12 shs Ophir at 320 per foot. h 3.
12 shs Alpha, G. H., at 125@140 per foot.
4 shs Alpha, G. H., at 130 per ft, h 30.
2 shs Gould & Curry at 830 per foot.
6 shs Hale & Norcross at 315@325 per ft.
130 shs Exchequer at 8¼ per share, s 3.
10 shs Imperial at 107@107½ per share.
5 shs Imperial at 106¾ per share, s 3.
17 shs Bullion at 35 per share.
3 shs Empire M & M Co. at 210@210.
20 shs Sierra Nevada at 9¾ por share, s 3.
1 sh Cal Steam Nav Co at 62 per cent, h 3
7 shs Cal Steam Nav Co at 62 per cent.

AFTERNOON SESSION.

3 shs Yellow Jacket at 455 per foot.
5 shs Yellow Jacket at 452½ per foot, h 10.
7 shs Yellow Jacket at 452 per foot, h 3.
6 shs Yellow Jacket at 450 per foot.
4 shs Yellow Jacket at 447½@445 per ft, a 3
2 shs Yellow Jacket at 435 per foot, s 10.
15 shs Yellow Jacket at 440@445 per foot,
2 shs Yellow Jacket at 415 per foot, s 30.
1 sh Yellow Jacket at 440 per foot, s 3.
1 sh Yellow Jacket at 425 per foot, s 10.
1 sh Yellow Jacket at 443 per foot.
1 sh Yellow Jacket at 410 per foot, s 25.
16 shs Gould & Curry at 850@860 per foot.
4 shs Gould & Curry at 880 per foot, h 3.
18 shs Hale & Norcross at 320 per foot, s 3.
6 shs avage at 635 per foot.
1 sh Savage at 690 per foot.
1 sh Savage at 680 per foot, s 10.
1 sh Savago at 660 per foot, s 30.
12 shs Ophir at 325 per foot.
4 shs Alpha, G. H. at 130 per foot.
1 sh Belcher at 250 per foot.
2 shs Belcher at 240 per foot, s 3.
20 shs Chollar-Potosi at 235 per foot.
7 shs Chollar-Potosi at 240 per foot, h 30.
5 shs Chollar-Potosi at 234 per foot
5 shs Chollar-Potosi at 234 per foot, s 10.
4 shs Crown Point at 550 per foot, s 3.
35 shs Exchequer at 8@7¾ per share.
25 shs Exchequer at 7¾ per share, h 3.
25 shs Imperial at 103 per share.
10 shs Imperial at 108 per share, h 3.
5 shs Imperial at 107 per share.
5 shs Imperial at 107¼ per share, s 3.
5 shs Imperial at 106 per share, s 10.
10 shs Overman at 43 per foot.
10 shs Union Insurance at 113 per cent.
$ 700 Legal Tender Notes at 72c.
Amount of sales.....$112,648 00

Wednesday, January 17.

8 shs Savage at 680@660 per cent.
1 sh Savago at 690 per foot, h 30.
4 shs Savage at 645@655 per foot, h 30.
5 shs Chollar-Potosi at 240 per foot, h 30.
2 shs Chollar-Potosi at 235 per foot, s 30.
6 shs Chollar-Potosi at 235@233 per foot.
5 shs Chollar Potosi at 232 per foot, s 3.
12 shs Alpha at 130 per foot.
4 shs Alpha, G. H., at 130 per foot, s 3.
4 shs Alpha, O H, at 110 per foot, s 30.
5 shs Yellow Jacket at 425@415 per ft, s 3.
10 shs Yellow Jacket at 435@420 per foot.
12 shs Crown Point at 557½@545 per foot.
3 shs Overman at 40 per foot.
36 shs Savage at 325@322½ per foot.
36 shs Ophir at 320 per foot, s 3.
2 shs Belcher at 235@240 per foot.
1 shs Belcher at 245 per foot. h 30.
1 sh Belcher at 240 per foot, s 10.
55 shs Bullion at 33@35½ per share.
20 shs Bullion at 33@32 per share, s 30.
15 shs Imperial at 108@107 per share.
50 shs Lady Bryan at 2¾@2 62½ per sharo.
20 shs Sierra Nevada at 10 por share.
130 shs Exchequer at 7 per share.
7 shs Cal Steam Nav Co at 61 per cent, s 60

FROM THE OFFICIAL REPORTS

Of the Fifth Industrial Exhibition

Of the Mechanics' Institute, San Francisco, 1865.

[Just Issued—Mining and Scientific Press Book and Job Office.]

[*Continued from Page* 21.]

ON WAX WORK.

Committee:

P. MEZZARA, F. A. BUTMAN.

The display of wax work comprised some most excellent specimens of the art. The committee award to Mrs. E. V. Green, San Francisco, a first premium for a beautiful basket of wax flowers.

To Miss Mattie Love, San Francisco, who exhibited a small boquet, composed of one white camelia and violets, a second premium.

To Mrs. J. B. Harmstead, for fruits and shells, a first premium.

To Mrs. E. Piper, for a vase of flowers, honorable mention.

HAIR WORK, by Mrs. L. C. Baldwin, Marysville, one case hair work of beautiful designs and finish. Awarded a certificate of merit.

HAIR WORK, by Mrs. G. Cook, San Francisco, two cases hair jewelry; two frames hair work; one case shell work. The hair work and jewelry are most beautiful, disylaying good taste in design, and cxcellent workmanship. Awarded a first premium.

ON CONFECTIONERY AND CAKE.

Committee:

MRS. G. W. CONKLING, CHASE BORCHARD.

The committee award to Messrs. Dellwig & Bro., for best confectionery, a first premium.

Also to Messrs. Swain & Brown, for the best cake on exhibition, a first premium.

ON CARRIAGES, WAGONS, ETC.

Committee:

J. L. OTTIGNON, R. S. EELLS, H. W. BYINGTON, J. W. FARREN.

The exhibition of carriages and wagons of California manufacture was a very small one, and it was a matter of surprise to the Committee that so large a branch of mechanics should he so sparingly represented.

The quality of the specimens exhibited, however, was plainly superior to those of Eastern manufacture, of which quite a large number were in the Fair.

Track Sulkey, exhibited by H. M. Bernard, of Sacramento, was of good style and workmanship, and a credit to any establishment. Awardcd a second Premium.

Track Sulkey, exhibited by Alhert Folsom, of San Francisco, was of superior style and finish, well braced, extra strong wheels and beautifully painted. Awarded a first premium.

Doctor's Phæton, exhibited by George P. Kimhall & Co., San Francisco, has a great many conveniences for a doctor, such as pockets for medicines, instruments, etc. It is made to turn very short—which is a great convenience—and is a fine carriage for the use intended.

Pic-Nic Wagon, exhibited by George P. Kimball & Co. This vehicle has three seats, is covcred with cloth, and for accommodation, strength and utility for the purpose intended cannot he surpassed. For both the above, awarded a diploma.

Milk Wagon, by Stein, Link & Scherh, of San Francisco. The wood-work of this wagon is of good design, the wheels strong and well made, and the iron-work, painting and trimming of tho hest quality. For the purposo intended, tho vehicle is excellent. Awarded a diploma.

Side-Spring Top Buggy, hy Wm. Larkins, is gotten up in good style, and is well finisbed in every particular.

Open Side-Spring Buggies, hy Wm. Larkins, who exhihits two, possessing all the good qualities of the preceding vehicle. Awarded a special premium—silver medal.

Child's Wagon, hy E. C. Brooks. This wagon is of good stylo and workmanship. The hody is hnng on four levers, attached to four spiral springs, which is a novel invention.

Pulley Evener, hy William Saunders. This article is attached to a wagon-pole. The "evener" is about six feet long, with an iron pulley in the center, around which the chain plays to which the team is hitched. Not having had a practical test exhihited to them, the Committee presume that the "evener" is intended to prevent sudden jerks on the hreasts of horses, and they recommend teamsters to use it.

Car Couplings, hy E. T. Barlow, San Francisco. The coupling links are so arranged that, on two cars coming together, they will couple themselves without the aid of man, hy which a great number of accidents can he avoided.

Car Switch, hy E. T. Barlow, which does away with all friction, and is very simple and effective. The Committee commend these last two articles to the consideration of railroad companies throughout the State.

AGRICULTURAL IMPLEMENTS AND MACHINERY.

Committee:

DANIEL L. PERKINS, J. A. HOBART.

The Committee, after examination, award as follows:

Seed Sower and Cultivator—For broadcast sowing, hy D. & H. A. Winter.—Awarded a first premium.

Roller and Grain Drill, hy L. Sikes, Santa Clara.—Awarded a second premium.

Seymour & Morgan's Combined Mower and Reaper, hy J. D. Arthur & Son.—Certificate of merit. The same firm also made a fine exhihit of different kinds of plows.

Gang Plow, by L. Holloway, Gilroy, of superior workmanship.—Awarded a silver medal.

Portable Hay Press, hy M. Doanes.—Awarded a second premium.

Hay Press, by E. F. Mock, Petaluma. This is a rotary, folding hay press. The model shows much ingenuity, but the Committee were unable to decide upon the merits of the press from an examination of the model alone.—Awarded a diploma.

Convertible Gang Plow, with its attachments, by T. Mahers, Watsonville. This is an excellent machine.—Awarded a diploma.

Gang Plow with Seed Sower and Harrow Combined, by Baker & Hamilton, Sacramento. No ono being present to explain the machine, the Committee were unable to judge of its merits. This firm also exhihited two fine steel plows.

Feed Box (self-regulating) hy Benjamin E. Harris. This arrangement for feeding horses exhibits much ingenuity, and the committee would judge it of practical utility.

Hay and Straw Cutter, hy J. L. Chase. An excellent machine. No competition.

Grain Separator, by A. Hunter. The Committee have examined and experimented with this machine, and, finding it a valuahle one for the purpose claimed award a silver medal.

Mustard Cleaning Machine, by A. Hunter. The Committee bave experimented with this machine, and find it valuahle for the purpose intended.

Tree and Corn Cultivator, hy Andrew Barton, Oak Knoll, Napa County. The Committee have made a careful examination of the manner in which the machine performs its work, and are of the opinion that it will do all that is claimed for it. Mr. Barton has applied for a patent. In view of its excellence, it is awarded a diploma.

ON CIDER AND WINE PRESSES.

Committee:

WM. GUNN, C. F. JONES, WM. H. HOOPER.

Cider Press, hy John Denn, Sacramento. For being the most effective, combined with simplicity of construction, this press was awarded a first premium.

Cider Press, by E. W. Walton, Drytown.—Awarded a second premium.

Cider Press, by Joel Halstead, worthy of honorahle mention.

ON WASHING MACHINES AND WRINGERS.

Committee:

V. S. W. PARKHURST. C. F. JONES.

Four washing machincs were entered for exhibition, viz., the "Union," "Challenge," "Economy," nnd "Rotary." The committee, after careful trials of the different machines, are of the opinion that the "Economy," hy J. M. Horner & Co., can do more work, witb less power and with less wear and tear to the clothes than the others.—Awarded a first premium.

To the "Union" washing machine, by J. L. Chase, is awarded a certificate of merit.

ON CABINET WORK.

Committee:

JOHN WIGMORE. JOHN BRYANT.

Billiard Tables, exhibited by P. Liesenfelt. For beauty of design and excellence of construction and finish, the committee award a first premium.

Secretaries and Desks.—The committee award a first premium to Easton Bros., for secretaries exhibited hy them.

Secretaries and Desks.—A. Conrad exhibited secretaries which were awarded a second premium.

Manzanita Cabinet and Cane Case, hy J. M. Aitken. This cahinet and cane case, made of California wood, and exhibited for competition, were of most excellent workmanship. In view of the decided superiority of tbese articles, the committee awarded a special premium.

Barber's Chair, by Wm. M. Butler. For completeness of design and execntion, the committee awarded a special premium.

Furniture, by Goodwin & Co. Lots 552, 583, 640, 278, and 366, of Eastern manufacture, were of excellent quality.

Furniture, hy J. Pierce. The committee make special notice of lot 672, consisting of library suite, chamher do., and cahinet, all of black walnut, as being superior to all others of Eastern manufacture.

Sea Chest, hy Capt. Edgar Wakeman. In the opinion of the committee, this chest showed considerahle merit, as being the work of an amateur.

Willow Furniture, by Neuman Bros. To this exhibit, as being very handsome, and light, and tasteful in design, the committee awarded a certificate of honorahle mention.

Inlaid Picture and Table, by Lazarus Castignio. These articles were finely designed, and the inlaid portions of the same beautifully executed.

Bed Lounge, by Jules Rolland, San Francisco. One bed loungo. This lounge is of extension make, arranged to close up in a very neat and compact manner.—Awarded a certificato of merit.

ON BILLIARD TABLES.

Committee:

R. N. VAN BRUNT. PAUL MORONEY. J. B. GUTHRIE.

The committee examined the cusbions of the two billiard tables on exhibition, and report the cusbions of the one owned by J. Strahle to be entitled to the premium.

ON DENTAL CHAIRS.

Committee:

J. B. BEERS. H. J. PAINE. J. B. JOHNSON.

The only chair exhibited was one made hy Dr. Wm. M. Butler, of this city, which the committee tbink is well adapted to supply a great want in the profession. It is not only of superior workmanship and high finish, but, owing to an ingenious combination of mechanical appliances, a great diversity of movement is obtained. The working of the machinery is so easy that it requires hut little more than an effort of the will on the part of the operator to place the patient in any position needed. Attached to the chair is a very elegant spittoon, for dental use, which, heing halanced on a universal joint, always keeps a perpendicular position, notwithstanding the altering movements of the chair. Combined with this spittoon is an ingenious device for saving the waste filings and chippings of gold, which amonnt to a considerable sum per annum, especially where there is a large practice. As n California invention of great merit, awarded n silver medal.

ON UPHOLSTERY.

Committee:

J. O. ELDRIDGE. CHARLES C. VOLBERG. SAMUEL J. FLETCHER

To Messrs. Goodwin & Co., for unique and original reception chair, upholstered in brown silk reps, as heing the best domestic invention, and snperior in all respects, awarded a silver medal.

To Messrs. J. Pierce & Co., for skill in workmanship in upholstered articles exhibited, awarded a first premium.

Upholstery Goods, hy B. L. Soloman & Sons, San Francisco. This firm exhibited one glass case of upholstery goods, four chairs, and outside drapery. This collection of goods was of most superh style and quality.—Awarded a diploma.

ON LEATHER, HOSE, ETC.

Committee:

DAVID SCANNELL. JOHN C. AYRES. W. T. GARRATT.

Your committee report that they have examined the hose exhibited by M. M. Cook & Son. Being the only hose exhibited, the committee can make no comparison, hut the material of that examined was of the best quality, and it was made in a superior manner. It was subjected to a strain of 160 pounds per square inch, and, from its appearance, it would have withstood more strain without fear of ruptnre, Its superior merit as a home manufactured article, in the opinion of the committee, entitles it to the award of a silver medal.

Horse Collars, hy Wm. Trnmbull, San Francisco. A lot of horse collnrs of California manufacture. These collars are of exeellent workmanship and good material, and represent all the various styles and qualities used in California.—Awarded a certificate of merit.

Leather, hy Kirby & Co, Santa Cruz. This firm exhibited two rolls sole leather and nine sides assorted leather, of their own manufacture, which, for all the qualities that constitute a good article, have no equal in this market. This leather was tanned in Santa Cruz County.—Awarded a silver medal.

Benicia Cement, hy Wm. H. Martin, San Francisco. One harrel Benicia cement. This is a most excellent article of cement, considered equal, for all hydraulic purposes, to any imported.—Awarded a diploma.

Rosin and Turpentine, by Wm. G. Jones, San Francisco. Both the rosin and turpentine are of exeellent quality, and were made near Dogtown, Butte County. Awarded a diploma.

Neat's-foot Oil, manufactured by Geo. S. Dann, Pacific Glue Factory, and exhibited by Cameron, Whittier & Co., agents. This manufacture has been carried on by the above-named party for the last five years; capacity of works, 8000 gallons of oil per annum, and 10,000 pounds of glue per month, the greater portion of which is exported to New York, for sale there. The quality of the oil is most excellent, while the glue is said to sell in New York at profitable prices.—Awarded a diploma.

Glue, exhibited by E. Kunitz, per Cameron, Whittier & Co., agents. This glue was made by the exhibitor, in Santa Cruz county. Its quality is excellent, it being preferred to Eastern made by most consumers. The works have been in operation about three years; their capacity is about 2,000 pounds per month. The glue finds a ready sale in this market, and is furnished at prices lower than a similar article can be imported.—Awarded a diploma.

WATCHES AND MATHEMATICAL INSTRUMENTS.

Committee:

WM. H. KNOWLTON, JAMES ANDERSON, B. R. NORTON.

The exhibition in this department, though not extensive, was still very interesting, the specimens showing a high degree of skillful workmanship and, in mechanism, an accuracy of detail that would do credit to older cities with larger population. Considering the recent settlement of California, and the drawbacks which those engaged in the finer arts and sciences labor under from the difficulty of getting proper materials, high cost of living, etc., the progress shown by this exhibition should be a matter of honest pride to our people. Judging from the success of this and other kindred departments, requiring the finest mechanical skill and ingenuity, the day is not far distant when we may depend upon our own resources in these particulars.

Watch by A. F. Mitchell. This watch, made in San Francisco, the committee examined with care, and found it to be a very creditable specimen of fine workmanship, showing a high order of mechanical skill. The committee deem the same worthy of a silver medal.

Surveyor's Compass and Transit, by John Roach. On examination, the committee found those instruments—made in San Francisco—very accurate in construction, displaying a high degree of excellence in workmanship and finish, and equal in all respects to any imported. The committee deem the same worthy of a silver medal.

ON ALBUM STEREOSCOPES.

Committee:

AUGUSTINE SNOW. W. BAUSMAN. H. C. BENNETT.

The only album stereoscope, or other instrument designed to answer the same purpose, on exhibition at the Fair, was that invented and exhibited by Mr. F. E. Mills. The instrument is designed to illustrate photograph albums, and in the opinion of the committee, is superior to any other used. It has what the inventor terms a "chromium," which consists of a glass prepared for the purpose of giving a life-like tint to the objects seen, instead of the usual ghastly hue produced by the ordinary stereoscopic instrument. As a California invention of great merit, it is awarded a silver medal.

ON GOLD PENS.

Committee:

WM. G. DOOLITTLE, R. N. VAN BRUNT.

The Committee report that, after a careful examination of the gold pens exhibited by Messrs. Kenney and Goldman, they award those of Mr. Kenney, as being the best, a premium.

ON ELECTROPTYPING AND SILVER PLATING.

Committee:

JAMES MACKIN, O. B. OAKLEY, WM. H. T. CLARK.

The Committee in this department of the Exhibition report as follows:

R. F. Rocchellicoli, San Francisco, had on exhibition a large quantity of electrotype plates and solid dies, for stamping leather, etc., and a beautiful silver plated figure of Flora supporting a lamp. Mr. Rocchellicoli also had on exhibition German silver window and fender bars, of his own manufacture, which compared favorably with Eastern work.—Awarded a silver medal.

John Martel, San Francisco, exhibited some fine specimens of California manufactured plated wares, which were awarded a first premium.

Marwedel & Otto, San Francisco, exhibited a case of fine imported hardware of good workmanship. Also, electro-plated bell-levers and door-handles, of California workmanship.

Wm. P. Harrison, San Francisco, exhibited a very fine case of electrotyped printing plates, manufactured in this city, which articles deserve honorable mention.

Greaves & Smith, San Francisco, exhibited an improved soda fountain, manufactured by themselves. This machine appeared to be of excellent copper workmanship, and is apparently, what the manufacturers claim it to be, an improvement upon any soda fountain now in use.—Awarded a diploma.

ON CUTLERY.

Committee:

HENRY WHEELER, W. J. LELAND, A. W. REAY,
J. WEICKHART, F. A. HOLMAN, M. D.

The display of cutlery in this part of the exhibition, was very fine. The competition, however, being between Messrs. Will & Fink and M. Price, both of whom presented cutlery of California manufacture, of superior excellence and finish. The Committee award to Messrs. Will & Fink, San Francisco, for best exhibit of California made cutlery, a first premium.

To M. Price, San Francisco, for fine exhibit of California made cutlery, a second premium.

ABDOMINAL SUPPORTERS.

Committee:

WM. CARMAN, M. D., WASHINGTON AYRES, M. D.

The Committee on ladies' abdominal supporters, chest expanders and improved shoulders braces, report that although they are constrained to make the first award to the articles exhibited by Mrs. I. J. Howard, for their superior general advantages and adaptability to the purposes claimed, yet they would call attention to the specific qualities of lightness, superior mechanism and admirable adaptability of those exhibited by Mrs. Read.

Concealed Door Spring, exhibited by B. F. Barker, San Francisco. This invention appears to be a great improvement on the ordinary door springs, and their peculiar construction gives steadiness and strength to the door in closing.—Awarded a diploma.

ON DENTISTRY AND DENTAL INSTRUMENTS.

Committee:

J. B. BEERS. H. J. PAINE. GEO. F. BENNETT.

The committee report the following as the result of their labors and awards:

On Dentistry.—To Drs. Knowles & Clarke, for the best set of artificial teeth, vulcanized upon a gold base; also, for the best set of artificial teeth made upon English vulcanized rubber, a silver medal.

On Dentistry.—To Dr. H. H. Thrall, for the best set of artificial teeth, made upon American vulcanized rubber, a first premium.

On Dentistry.—To Dr. Wm. Calvert, for some very fine samples of artificial teeth, of his own manufacture, which the committee, having used them in their own practice, believe to be equal to Eastern make, or the imported article; also, for samples of corrundum wheels, tape, &c., manufactured by himself for dental purposes, a silver medal.

A number of samples of teeth, soldered upon a gold base, were exhibited by divers parties, some of them highly finished and creditable specimens of the art; but those of merit the committee were satisfied were not wholly executed either in the laboratory of the exhibitors, or under their immediate supervision, thus giving no personal evidence either of professional skill or workmanship to the committee, who, therefore, do not feel justified in deciding upon their merits.

Extracting Teeth without pain.—To Dr. Edward Belle, for an ingenious apparatus for the application of cold to the teeth and gums, during the process of extraction, benumbing the nerves and periostium, so as to render the removal of teeth painless. The committee have witnessed the practical application of this process, and believe the machine an excellent one for the purpose designed, in all cases where it can be properly applied. They, therefore, recommend it as worthy of consideration.—Awarded a diploma.

ON GLASS MANUFACTURES.

White Flint Glass Ware, by the San Francisco Glass Works. One stand of fancy articles, in glass, of California manufacture. This company manufactures white flint glass ware only, and, from the excellence and cheapness of their wares, bid fair, in time, to drive out all foreign competition. This is the second glass company established on the Pacific coast, the other being the Pacific Glass Works' Company, at the Potrero, which confines its manufactures mostly to green and black glass ware, which it produces in large quantities. The San Francisco Glass Works have been in operation only a short time, during which, however, they have manufactured a great variety of white glass ware, of excellent quality.—Awarded a silver medal.

Ground and Cut Glass, by John Mallon & Co., San Francisco. One lot ground and cut glass. These specimens were of beautiful design and fine workmanship, and not to be excelled by anything of the kind ever imported.—Awarded a silver medal.

ON MUSICAL INSTRUMENTS.

Committee:

GEO. S. EVANS. J. K. KENDALL. JOHN L. CLARK.
GEORGE KOPPITZ. J. W. J. PIERSON.

The display of musical Instruments was a very fine one, that portion of Californin manufacture comparing favorably with the best imported. For a new country, scarcely fifteen years a State, the exhibition of her progress in the fine arts of civilization and population, as shown by this portion of the Fair, is worthy of great praise. This is more apparent when we consider the volatile character of her people, and the high price of skilled labor necessary in the manufacture of musical instruments, and the competition natural with those manufactured and imported from the Eastern States and Europe. As a general rule, articles manufactured in California have to be of surpassing excellence to compete successfully with imported articles, at a similar price. The case of musical instruments is no exception to the general rule.

Flutes, by George Pfaff, San Francisco, who exhibited a case containing a variety of flutes, of his own manufacture. These flutes were superior in tone and workmanship to any exhibited before. In addition to the usual keys and openings in imported flutes, Mr. Pfaff has added several others, which improves them to a considerable extent, as they enable the player to execute with greater ease than heretofore, very difficult passages, keys, and shakes. The instruments of Mr. Pfaff are bored in a more perfect manner, which also improves the sound.—Awarded a diploma.

Pianos, by Jacob Zech, San Francisco. The pianos of Mr. Zech were, in tone, action, and finish, considered superior to any exhibited before. These pianos, among other changes, have an improvement in the sounding-board, which adds greatly to the sweetness and volume of tone. There being no competition of California made pianos with those of Mr. Zech, the rules forbid award of a premium. In view, however, of their excellence of tone and finish, as compared with the other Pianos exhibited, the committee award to Mr. Zech a gold medal.

Square Pianos, of Wm. B. Bradbury's make, New York, exhibited by A. Kohler, agent, San Francisco, were the best imported pianos of their kind exhibited.—Awarded a first premium.

Grand Pianos, by Badger & Lindenberger, San Francisco. Chickering, of Boston, exhibited a very fine piano of this variety. Mr. Chickering was the only exhibitor of grand pianos.—Awarded a diploma.

Melodeons and Cabinet Organs, by Mason & Hamlin, exhibited by A. Kohler, agent.—Awarded a first premium.

Accordeons, of Californin manufacture, exhibited by C. C. Keene, San Francisco. These instruments were manufactured by himself, and were superior to the imported. Awarded a first premium.

ON HAIR PREPARATIONS, DERTRIFICE, ETC.

Committee:

DR. L. LANSZWEERT, ROYAL FISK.

The great variety of the articles exhibited in this department of the Fair renders it almost impossible for the Committee to report at length on the merits claimed for the different articles by their exhibitors. They are, therefore, briefly mentioned, and those noticed beyond a simple enumeration in all cases have peculiar merits which, in the opinion of the Committee, entitle them to that distinction.

Hair Rejuvenator.—Samples exhibited by A. Grimm.—Awarded a diploma.

Perfumery.—Sample exhibited by T. W. Van Zandt. Also, by J. F. Fugazi, who exhibited a very large and fine assortment of his own manufacture. The cologne water, hair restorative, philocome, marrow pomade and hair dye were of most excellent quality, and, in the opinion of the Committee, equal, if not superior, to imported articles. Analyses made by the Committee show the ingredients in the hair restorative to be of a harmless nature, while the testimonials of respectable parties who have used the article, bear witness to its good effects.—Awarded a silver medal.

Spring Flower Dentrifice.—Samples exhibited by T. A. W. Lundborg. This article, on analysis by the Committee, showed no injurious but many valuable ingredients for the purpose intended. In the opinion of the Committee, this preparation surpasses any known article of dentrifice in this market, and they would recommend it accordingly.—Awarded a silver medal.

Cream of Tartar in Crystals.—Samples exhibited by E. Vache, Los Angeles. This article was of most excellent quality, but the exhibitor would have promoted his interests by exhibiting samples prepared for family use, with a description of its manufacture and cost, and the practicability of competing with the imported article. As the consumption of this article is very large in this State, it is much to be regretted that information so important and interesting to the people was not furnished.

Yeast Powders.—Samples of Curtis' yeast powders exhibited by F. Williams. As this was the only sample of yeast powders on exhibition, the Committee were not able to test its merits by comparison with others. The Committee, however, were of the opinion that the article exhibited would, on trial, stand well for preference.—Awarded a diploma.

Preserved Milk.—Samples exhibited by A. Besson. This article was, in the opinion of the Committee, superior to any imported, both for freshness and delicacy of flavor, the latter being very difficult to retain through the usual process of manufacture. Although the only article of its kind on exhibition, the Committee would, in view of its excellence and purity (as per analysis), recommend it for premium.—Awarded a silver medal.

Prepared Mustard.—Samples of German and French mustard exhibited by Zwick and Loeven. In the opinion of the Committee, these samples of mustard—the "Dusseldorfer" and the "Moutard de Bordeaux," are well prepared, the latter, apparently, being somewhat weaker than the imported article.

Warren's Lustrina, sample of this article exhibited by C. F. Boshen. This preparation, intended for cleaning and polishing cutlery, tin, Britannia ware, etc., was tested by the Committee, who found the article well adapted, as claimed, but, by a finer pulverization of some of the ingredients the quality would be improved.

[*To be Continued.*]

2 shs Cal Steam Nav Co at 62 per cent.
2 shs Cal Steam Nav Co at 61¼ per ct, b 3.
10 shs Spring Valley W W at 56½ per cent

AFTERNOON SESSION.

5 shs Chollar-Potosi at 232 per foot, s 5.
5 shs Chollar-Potosi at 230 per feet, s 30.
10 shs Chollar-Potosi at 232 per foot.
5 shs Chollar-Potosi at 232 per foot, s 30.
5 shs Chollar-Potosi at 233 per foot.
5 shs Chollar-Potosi at 230 per foot, b 30.
2 shs Yellow Jacket at 420 per foot.
1 sh Yellow Jacket at 410 per foot, s 10.
8 shs Yellow Jacket at 430 per foot, s 3.
2 shs Yellow Jacket at 425 per foot.
1 sh Yellow Jacket at 420 per foot, s 10.
4 shs Gould & Curry at 845 per foot.
4 shs Gould & Curry at 835 per foot, s 3.
12 shs Ophir at 320 per foot.
12 shs Ophir at 320 per foot, s 3.
1 shs Belcher at 245 per foot.
8 shs Alpha G, H., at 112½ per foot, s 30.
1 sh Savage at 660 per foot, s 3.
2 shs Hale & Norcross at 300 per foot, s 3
2 shs Hale & Norcross at 305 per foot.
4 shs Crown Point at 550 per foot, s 3.
5 shs Overman at 41 per share.
5 shs Imperial at 107¼ per share.
20 shs Imperial at 108 per share.
2 shs Imperial at 108 per share, s 3.
5 shs Imperial at 108¾ per share.
15 shs Imperial at 109 per share.
5 shs Imperial at 105 per share, s 30.
15 shs Imperial at 100 per share, s 60.
Amount of sales.....$ 72,309 00

Thursday, January 18.

7 shs Yellow Jacket at 400@412½, s 30.
15 shs Yellow Jacket at 430@520 per foot.
1 sh Yellow Jacket at 430 per feet, b 30.
10 shs Yellow Jacket at 425 per foot, b 3.
4 shs Yellow Jacket at 420 per foot, s 3.
1 sh Yellow Jacket at 412½ per feet, s 10.
1 sh Savage at 660 per feet, s 5.
1 sh Savage at 650 per feet, s 10.
1 sh Savage at 675 per feet, b 30.
7 shs Savage at 650@742½ per foot.
1 sh Savage at 640 per foot, s 3.
1 sh Savage at 625 per feet, s 30.
1 sh Savage at 640 per foot, s 10.
9 shs Chollar-Potosi at 232 per foot.
10 shs Chollar-Potosi at 234 per foot, b 10.
32 shs Alpha, G. H., at 115@100 per foot.
16 shs Alpha, G H, at 105 per foot, b 30.
8 shs Alpha, G. H., at 60 per foot, s 30.
8 shs Alpha, G. H., at 60 per foot, s 90.
48 shs Ophir at 320@325 per feet, s 30.
48 shs Ophir at 325@330 per share, s 3.
60 shs Ophir at 327½@330 per share.
72 shs Ophir at 335@330 per share, b 30.
4 shs Gould & Curry at 810 per feet, s 30.
27 shs Imperial at 111@113 per share.
17 shs Imperial at 113@110 per share, s 3.
5 shs Imperial at 110 per share, s 15.
20 shs Imperial at 110@111 per share, s 10.
45 shs Exchequer at 6@6½ per share.
1 sh Cal Steam Nav Co at 62½ per ct, s 3.
5 shs Cal Steam Nav Co at 62 per cent.
$ 9,000 Legal Tender Notes at 70¾ per cent.
$5,000 Legal Tender Notes at 70½c, s 30.

AFTERNOON SESSION.

5 shs Alpha at 105 per share.
4 shs Alpha, G H, at 110 per feet, s 5.
4 shs Alpha, G. H., at 110 per feet, b 30.
4 shs Alpha, G. H., at 110 per foot.
12 shs Alpha, G H, at 90 per feet, s 30.
12 shs Gould & Curry at 850 per foot, b 30.
4 shs Gould & Curry at 810 per feet, s 30.
1 sh Yellow Jacket at 417½ per foot.
1 shs Yellow Jacket at 405 per foot, s 30.
5 shs Chollar-Potosi at 233 per feet, s 10.
5 shs Chollar-Potosi at 234 per feet, b 30.
10 shs Chollar-Potosi at 232 per foot.
5 shs Chollar-Potosi at 232 per foot, b 30.
10 shs Chollar-Potosi at 230@223 per ft, s 30
2 shs Chollar-Potosi at 230 per foot, b 3.
2 shs Savage at 640 per foot.
2 shs Savage at 625 per foot, s 30.
1 sh Savage at 625 per foot, b 3.
3 shs Savage at 540@630 per foot, b 30.
1 sh Savage at 635 per foot.
12 shs Ophir at 337½ per foot, b 4.
35 shs Imperial at 110@109 per share, s 3.
15 shs Imperial at 109 per share, s 5.
5 shs Imperial at 108¾ per share, s 5.
5 shs Imperial at 108 per share, s 10.
43 shs Imperial at 109@110 per share.
5 shs Imperial at 109¾ per share, s 5.
20 shs Imperial at 105 per share, s 30.
5 shs Overman at 41 per foot, b 30.
20 shs Confidence at 20 per share, b 30.
5 shs Union Insurance at 118 per cent.
$ 5,000 Legal Tender Notes at 70½c, s 30.
Amount of sales.....$109,628 00

Friday, January 19.

180 shs Ophir at 325 per foot.
72 shs Ophir at 322½@325 per foot.
3 shs Yellow Jacket at 410@405 per ft.
7 shs Yellow Jacket at 400 per feet.
28 shs Chollar-Potosi at 226@230 per foot.
5 shs Chollar-Potosi at 225 per foot, s 30.
4 shs Gould & Curry at 820 per foot, b 5.
55 shs Imperial at 107@109 per share.
20 shs Imperial at 105 per share, s 30.
10 shs Imperial at 108½ per share.
8 shs Hale & Norcross at 315 per foot.
9 shs Savage at 625@630 per foot.
1 sh Savage at 645 per feet, b 30.
6 shs Belcher at 220 per foot.
4 shs Alpha, G. H. at 300 per feet.
15 shs Overman at 40 per feet.
6 shs Confidence at 40 per share.
67 shs Bullion at 33 per share.
95 shs Sierra Novada at 9 per share.
$15,000 Legal Tender Notes at 70½c, s 30.
$50,000 Legal Tender Notes at 70½c.

AFTERNOON SESSION.

15 shs Imperial at 105 per share, s 30.
20 shs Imperial at 100 per share, s 60.
15 shs Imperial at 108 per share.
15 shs Imperial at 108¼ per share, b 10.
5 shs Imperial at 108½ per share.
5 shs Chollar-Potosi at 225½ per foot.
40 shs Chollar-Potosi at 220 per foot.
6 shs Chollar-Potosi at 223 per feet, s 10.
10 shs Chollar-Potosi at 220 per foot, s 30.
8 shs Chollar-Potosi at 224 per foot.
2 shs Savage at 630 per feet, s 10.
4 shs Savage at 635 per feet.
3 shs Yellow Jacket at 385 per ft, s 5.
4 shs Yellow Jacket at 380 per foot.
7 shs Yellow Jacket at 380 per share, s 5.
2 shs Yellow Jacket at 375 per feet.
1 sh Yellow Jacket at 370 per share.
1 sh Gould & Curry at 825 per feet.
$5,000 Legal Tender Notes at 69¾ p et, s 30.
$25,000 Legal Tender Notes at 70c, b 3.
$ 5,000 Legal Tender Notes at 70c, s 3.
$ 5,000 Legal Tender Notes at 69¾c, s 30.

Mining Summary.

CALIFORNIA.

SHASTA.—A correspondent of the Sacramento *Union* speaks as follows of the quartz mining prospects of Shasta county: With a thorough acquaintance and experience in placer mining for fifteen years, in all its various branches, and backed generally with success, and with as full experience in prospecting, not working, quartz as any one, having had more or less to do with quartz in most of the southern and some of the middle counties, having been north, long in Washoe, and now here, and I believe further developments, not long distant, will bear me out in the assertion that nowhere have I seen any locality offering more flattering inducements than this vicinity for the investment of capital, whether you look to the character, extent and richness of the surface placer mines; to the result of mills now in operation here, above all other places, are the majority of ledges heavily charged with the different characters of gold-bearing sulphates, and wherein iron is a principal ingredient, in all imaginable combinations; to such an extent do sulphates prevail, in many instances as to be the predominant material in weight and bulk; thus, at the very outset requiring a character of machinery and process for working, with corresponding means and experience, far above the capacity of miners hereabouts, and will continue an insuperable barrier to the development of mines that, with proper appliances and judicious management, would annually yield millions.

"The old Jollie lode, now owned and worked by a company of practical English miners, at Muletown, with an old worn-out, rickety 4-stamp mill, with overshot water-wheel, — a vein from eight to fifteen inches thick, with very hard wall rock at the depth of forty-five or fifty feet, costing $12 to $15 per ton for quarrying—is, with no way of working sulphates at all, and only copper plates for saving free gold (whilst the sulphates, which are very rich, constitute three-fourths of the body of the lode,) yielding from $60 to $80 per ton, and has yielded for all work done, over $50 per ton, free gold, up to this time, and is improving as developed.

The Highland Company's mill, near the head of Dutch Gulch, two miles from French Gulch, running eight stamps, is steadily yielding from $30 to $200 per ton. The Washington Company's mill, on French Gulch, old and favorably known, is taking out very rich ore again. The Baker Company, on the east fork of Clear Creek, is taking out fabulously rich ore, and crushing, with hand mortar, $100 to the pound. The Honeycomb Company's mill, hydraulic power, on Hurdy-Gurdyville, is crushing, near the head of French Gulch, fine looking rock. Result not yet heard.

Near Old Diggings, for two years past a Mexican has been constantly engaged pounding rock, has just erected an arastra, has been and is supporting thereby a large family from a large and well developed vein. Kelly & Co., just completing a mill at Lower Springs, a few days since obtained from scrapings in the bottom of the shaft in their lode, four dollars to the pan, while in every direction daily new discoveries of rich croppings are being made by miners who are without means to test them by either work or machinery. Where there is one so called mill there should be fifty."

The *Courier* says that Mr. Rudolph Diotz is building a mill on Mill Creek, which, when completed, will be a source of profit to the owners and citizens of the county, as well as something to be proud of. The building is 40 by 125 feet, one story high.

PLUMAS.—A correspondent of the Quincy *Union* gives the following detail of mining operations at Sawpit Flat:

THE COMET COMPANY.—This company has probably expended $15,000 in running a tunnel along the south line of the claims, and suspended operations nearly a year ago. The claims, of course, are not prospected, and, what is still worse, probably never will be while owned by the present company.

EAGLE COMPANY.—The Eagle Company has a fine large dump shed, and is nicely situated for work. About $12,000 has been expended in a tunnel and other improvements, and this is its first year in the channel. The company is working sixteen hands. The gravel prospects well, and next spring we may expect to hear good tidings from the Eagle.

FRANKLIN COMPANY.—This company took out last year $35,000 and it is expected to do as well, if not better, this year. The company employs thirteen hands—four of these are employed in driving the main tunnel back to see what old dame nature has hidden away in the back part of this old banking house. Two channels have been found in every claim at Sawpit Flat—the first or outside channel is unprospected; the second is good, and the Franklin is driving back in search of a third channel with many reasons to hope for success.

UNION COMPANY.—This company took out last year nearly $40,000—and it is expected the proceeds of these claims this year, will not fall below the figures of last year. The tunnel and improvements have not been made probably for less than $15,000. Sixteen hands are employed in the claims.

NEW YORK COMPANY.—The tunnel and improvements have cost about $12,000. The tunnel was commenced about eighteen months ago, and is now in the channel. The claims will be opened and in a fair way for taking out gravel, probably in two months from now. There is no doubt but these claims will give a good account of themselves next spring. With the New York ends our catalogue of Sawpit Flat mining claims.

CALAVERAS.—The Copperopolis *Courier* of a late date speaks as follows of the mining interests of this county:

Within the past few months numerous quartz leads have been discovered in different parts of this county, and the work of prospecting has been carried on in the most lively manner. At Murphy's, Angels, French Camp, San Domingo, San Andreas, Vallecito, West Point, Campo Seco, Copperopolis, and other places, leads of promise have been discovered and are now being prospected with vigor. At Angels an unusual interest is being felt in the mines. Several companies are extracting rock for the mills now in operation (four in number), while numerous private parties in that place and vicinity are quietly working their respective claims. At Carson Hill rich developments have recently been made. Also in Salt Spring Valley. It is said that the new mill at Angels is a paying institution, the rock from the claim on which it is situated averaging about eighty dollars to the ton. Many of the claims in the vicinity of French Gulch seem to possess more than ordinary merit. They are small, but make up in richness what they lack in size. Moreover, the cost of developing them is comparatively small, the formation through which they run being soft slate. The Hardy lead is one foot in thickness at a depth of twenty five feet, and is becoming wider as the shaft descends; but if the lead is no wider at a greater depth, it is to be hoped it will be equally as rich as it is known to be nearer the surface. A foot lead in soft slate, yielding from fifty to one hundred dollars to the ton, is valuable property. In a few years Calaveras county will be numbered among the first quartz mining counties in the State. Indeed, we shall not be surprised if it take the lead.

TUOLUMNE.—The following quartz mills are reported for the First Assessment District of Tuolumne county:

Soulsby Mill; run by steam or water; 20 stamps, 4 pans; 40 horse power.

Independence Mill; steam; 10 stamps; 25 horse power.

Confidence Mill; steam; 10 stamps, 3 arastras; 20 horse power.

Bay State Mill; steam; 5 stamps; 25 horse power.

Green's Mill; steam; 5 stamps and amalgamator; 8 horse power.

Wheeler & Thayer's Mill; 10 stamps, 2 pans; 20 horse power.

Laurel Hill Mill; 10 stamps, 2 pans; 20 horse power.

Larco Mill; 10 stamps, 2 pans; 20 horse power.

Pirate Mill; 10 stamps, 2 arastras; 25 horse power.

Grizzly Mill; 10 stamps, 2 pans; 25 horse power.

Eureka Mining Company's Mill; 20 stamps, 3 pans; 40 horse power.

Gilson Mill; 10 stamps, 1 arastra; 20 horse power.

Excelsior Mill; 10 stamps; 20 horse power.

Monitor Mill; 10 stamps, 3 pans; 20 horse power.

Tuolumne Mountain Gold and Silver Mining Company, (Buchanan Mill); 10 stamps, 20 horse power.

Dr. Walker's Mill; 2 stamps; 5 horse power.

Robert Cash, smelting works for extracting gold, (oven, battery, etc).

MARIPOSA.—The Mariposa *Free Press* says: Reports from the Hamilton district concerning copper prospects still continue to be favorable. Several thousand pounds of the metal have been smelted during the last two weeks at the works ready for shipment. Quite a little town is springing up in the locality of these works at James' Ranch, which may eventually rival Copperopolis.

HUMBOLDT.

We learn from the *Register* that the Montezuma mine is looking as well as ever, and the deep work will soon be resumed. Meantime, the drifters are taking out ore which yields remarkably well under mill process. Sterling is getting material together for the cement furnaces.

The Webber mill, which has been removed from Arabia, Trinity District, and erected on the Humboldt river, lately turned out sixty pounds of bullion. The old mill built by John C. Fall is being run by M. Torrey, and is now working rock from the Manitewoc mine. Holt's mill, in Winnemuck District, about twenty-five miles north of Dunn Glenn, is completed, and will start up in a few days. The Jersey, Montezuma and Dasey claims, in Trinity District, are taking out rock.

The Jersey mine is now second to none in the county. The Atchisons are putting shafts down at an unprecedented rate. Twelve men constantly at work. In the perpendicular shaft, above the line of the Dunderberg incline, at a depth of sixty-five feet, they have struck the ledge, and have at that point a body of fine ore three feet in width. The tunnel (taking the ledge endwise) is ninety feet in; the inclines (following the ledge down at different points) are kept on with—one being now 108 feet and the other 120 feet down. This may be called prospecting a ledge to some purpose.

NEVADA.

The following figures are taken from the reports of the several Assessors of the counties indicated in the State of Nevada:

The Assessor of Humboldt says his county has produced $100,000 of bullion during the year ending September 30th. The total yield of the Sheba mine is reported at $70,000, the ore averaging $140 per ton. The Assessor of Lander county, which includes the Reese River region, says that during the last six months 36,000 tons of ore have been reduced in his county, at an average cost of $75 per ton, and 10,000 tons have been taken out and laid by, to be reduced when the expense will not exceed $50. The number of miners is estimated at $1,000. The county has three water-power quartz mills with thirty stamps in all; and sixteen steam quartz mills with 133 stamps. The Surveyor and Assessor of Nye county, make a joint report in which they state that there are four quartz mills in operation in the county, and four are being built, one at the Murphy mine, Twin River District, to have forty stamps, and to cost $150,000. The number of miners is estimated at 500; the total product of bullion at $100,000. The cash working capital introduced within a year, is reported at $1,000,000.

JUSTIS MINE.—The Justis mine is said to be yielding a large amount of excellent ore at the present time. It is stated that 800 tons per month, that will work from $40 to $50 per ton, can be extracted.

ESMERALDA.

John S. Mayhugh, Esq., furnishes the Virginia *Enterprise* with the following facts with regard to the mines of Bodie District:

The Isabel shaft has now reached to the depth of 176 feet, at which point the vein is found to be five feet wide.

The Osceola is now down to the distance of 216 feet, commencing on the surface with a ledge only ten inches thick, but at the bottom of the shaft the vein has increased to from five and a half to six feet in thickness.

The New Mexico is 104 feet deep from the surface, with a splendid lode in view of some four feet thick.

I will here remark that all the ledges in this district are decomposed, and these outcroppings do not show more than six or eight inches of a ledge.

They have struck rich ore in the Mary Ellen Ledge, at a depth of 200 feet.

Bunker Hill is down upon the ledge 130 feet.

The Magnet 120 feet, with a vein of pay ore at least three feet thick.

Rockaway, fifty feet deep, has just struck good ore.

In the New Mexico upper shaft, known as No. 2, the depth of 180 feet has been reached, from which point there is now being taken some of the richest ore that I have ever seen in this section of the country.

Osceola No. 2 is now excavated to the depth of 123 feet, in the bottom of which is found a very fine ledge of pay ore some four feet in thickness.

The Tioga is down about 100 feet and opens out a splendid ledge.

The New Mexico Tunnel has now reached the distance of 356 feet to the southwest through the main body of the hill, the end of which is 256 feet perpendicular from the surface.

The Tioga Tunnel is 265 feet into the bluff, and from the surface 222 feet.

The Isabel Tunnel is located on the north side of the bluff, and has now penetrated to the distance of 386 feet, and in its course through the hill has passed through some four fine-looking ledges of two and a half to four feet thick. When this tunnel shall have reached to the distance of 700 feet it will have cut through the lodes of several of the most important companies at nearly right angles, and at an average depth from the surface of 500 feet.

The mines in this district have several advantages not usually found connected with the working of silver ores on the eastern slope. First, plenty of clear and pure water. Second, the ore is all, or nearly so, decomposed, and thirty tons can be crushed with more ease, and in less time, and with less wear and tear to a mill than twenty or twenty-five tons of the average rock of Virginia or Esmeralda, which is, to some extent, hard and flinty—at least it has been the experience of our Esmeralda mill men, who have crushed from both districts, Bodie and Esmeralda.

Third and last and most important, is the easy access to an inexhaustible amount of the finest timber for both building and fuel purposes at the foot of the Sierra Nevada mountains, at a distance of about eighteen or twenty miles.

The immense amount of ore that can be taken from these mines will require at least two additional mills, of thirty stamps each.

The Empire Company's mill, that has been erected during the past summer, is situated at the northeast base of the bluff, in the valley leading from Bodie to Aurora, and about 700 feet below their mines. The inside machinery of the mill are sixteen heavy stamps, eight Wheeler pans, three separators, four copper shaking-tables (one to each battery of four stamps), four copper concentrators, twelve vats for pulp—capacity of seven tons each.

The mill crushes ten tons per day, which is all that the pans can amalgamate, but with an increased number of pans (which it is the intention of the company to put in), the capacity of the mill will be thirty tons per day.

The mill is now yielding from $12,000 to $15,000 per month, and the mining and milling of the ore costs $10 per ton, and is supplied from one ledge only—the Osceola; the ore from this ledge costs about $1 75 per ton for mining, and there is enough of ore, by cubic measurement, in sight, above the 100-foot level, to run the present mill one year without any further developments. Thirteen men are employed in the mill.

REESE RIVER.

We condense from the Reese River *Reveille* as follows: We learn that new and important discoveries of mineral ground have recently been made south of Silver Peak District. The character of the ledges—which rumor pronounces very rich—and their precise locality have not yet transpired, but we hope to be able to furnish the particulars in a few days.

An instance of successful work is recorded, in the case of a lot of very rebellious ore taken from the Stephen A. Douglas mine and worked at the Midas mill. The bullion was 960 fine, and exceeded 80 per cent. of the assay value of the ore. The Douglas ore has long been considered as among the most rebellious in the district and is nearly similar to the ore of the Providential. It is gratifying to know that our most refractory ores can be made to yield such fine bullion, and that they only require to be treated in a proper and skillful manner.

The Providential is situated on Lander Hill, and is being furnished with powerful hoisting apparatus. The Providential exhibits one of the largest and most promising veins on the hill, and has suffered severely for lack of this mechanical force to develop its character.

The Tesoro mine has lately been worked with great energy, and is now nearly 100 feet deep. The vein has been penetrated four feet without cutting through it. The ore seems to be of good character.

The Drummond Ledge is located 200 yards north of the Empire mill building in Yankee Blade Ravine. It is a very large claim, embracing 2,000 feet. An incline follows the course of the vein to the depth of thirty-two feet, exhibiting a handsome ledge fifteen inches thick, holding several strata of very rich chloride ore. For the amount of labor expended on the claim the owners are warranted in believing it one of the most promising mines in the Yankee Blade basin.

The Winchell mine is situated about 400 yards north of Yankee Blade Ravine, and about half a mile from the Metacomet ledge in the adjoining district of Amador. It is believed to be an extension of the Metacomet. A shaft has been sunk on the ledge to the depth of twenty-three feet, developing a ledge fully five feet thick. Although the ore obtained from the vein does not yield high assays of silver, nor would it pay the present cost of reduction in a custom mill, it is believed that when greater depth has been attained, it will prove a valuable property. The Winchell belongs to the Austin Silver Mining Company, and is attached to the Colfax mill.

Some rich ore has recently been taken out of the Girard, under charge of Mr. Joseph O'Neil. The old good repute of this claim is well borne out by the recent developments. At a depth of eighty feet the vein is found to be near two feet in thickness and bearing a fine quality of ore. It will probably require a depth of 200 feet to reach the sulphuret ore, but from the evidences shown by the richness and size of the vein, the sulphurets will prove abundant and valuable when found.

Mechanical.

A NEW SUBSTITUTE FOR IRON AND WOOD.

Prof. A. L. Fleary, in one of his interesting letters to the Pittsburg *Oil News and Manufacturing Journal*, gives quite a full description of a recent invention of a substance known as Zopissa paperboard, which, he states, is now being extensively introduced in England as a substitute for many purposes for wood and iron. The invention was made by Col. N. C. Szczerelmey, a Hungarian gentleman, residing in London. The following description, compiled from the Professor's letter, will be read with interest as giving some idea of the usefulness and value of this invention:

The Zopissa paperboards and pipes are made of a material manufactured from fibrous substances, and saturated with the Zopissa compound only, without the slightest admixture of any bituminous matter. They are therefore not to be confounded with pipes made of bituminous paper.

The material is of a most remarkable character, its specific gravity compared to iron is as one to six and a half or thereabouts, depending on the mode of its manufacture; it is slightly greater than the specific gravity of wood (English oak,) but the Zopissa board is much stronger than any description of wood. A test with Zopissa board of one inch in thickness against oak planks of the same width and length, but six inches thick, has shown that where the one inch Zopissa boards have deflected half an inch, the six inch oak planks have been thoroughly broken.

When fired at with a Whitworth rifle it has been found that the resistance to penetration of two inches of this board is proved to be greater than that of ten inches of solid oak.

The Zopissa boards are perfectly waterproof or non-absorbent, and practically indestructible, for neither animal, nor vegetable matter can adhere to their surface. The material is a non-conductor of heat, cold or electricity, and perfectly non-inflammable, no amount of heat can set it in a flame.

When prepared in sheets, which can be made 100 feet long or upwards, and of any breadth and thickness, this material is eminently adapted for ship and boat building, the lining or covering of ships, for backing armor plated vessels; for the construction of water tanks; for portable houses; for roofing and flooring; for railway and private carriage building; for many descriptions of furniture; for the soles of boots and shoes, for *oil* and *water tanks*, petroleum barrels, hogsheads, casks, boxes, etc., etc.

The Zopissa boards are readily fixed to the framework of vessels, and do not require sheathing with copper or other metal, for they are never fouled. The heaviest shot going through vessels constructed of this material will make only a clear, round hole, without splintering, which is the cause of the destruction of life in vessels of war, (the same can be said to happen in the railroad collisions,) the damaged portion can at once be plugged and rendered perfectly secure.

If such a vessel strikes upon a rock, there will be no shattering of timbers, as with a wooden vessel, or complete destruction as is often the case with iron ones, owing to the inability to immediately repair the damaged portion.

When used as a lining for iron ships, the Zopissa board entirely prevents the unpleasant and unhealthy effect of sweating, always to be found in such vessels.

So fully alive are the English government and the shipping interest to this invention and its important advantages, that large offers have been made to the patentee for the right to apply the material for this purpose only.

For the construction of railway carriages an immense field is open for the application of the Zopissa board, and orders are already promised for many years to come. When this material is used, a carriage is obtained combining the maximum of strength with the minimum of weight and cost, and the most beautiful polished surface can be given to the exterior of such carriages.

THE ZOPISSA PIPES.

In addition to the multifarious uses to which the Zopissa sheets are suited, the Zopissa pipes are peculiarly applicable for the transmission of water, gas, sewerage, oil, and other liquids, also for underground telegraph purposes, for speaking tubes and a vast variety of other uses. The Zopissa pipes are considerably stronger, (compared by weight) much cheaper, and remarkably light as compared with iron pipes. Water passing through them will remain perfectly pure and cannot freeze in the severest frost, therefore, pipes of this material are not liable to burst. To prove the latter statement the Zopissa pipes have been tested in Russia for a whole winter without being affected in the smallest degree.

The Zopissa pipes will bear a pressure of 260 pounds to the square inch, and can be made of greater strength if required.

WHAT IS ZOPISSA?

The *Zopissa* is a substance coming from the East Indies, and possesses the peculiar properties given to the fibrous materials. If we look around in nature we find many curious properties due to the admixture of certain substances, the strength of the fibre in certain qualities of wood, the stiffness of straw, the tenacity of the vine, the indestructibility of the human hair, the hardness of the covering, and the compactness of the tooth, and many other instances, show that we have yet many things to learn. The preservation of the monuments of antiquity in Eastern cities, in Egypt, in the East Indies and others, have led Col. Szerelmey to the employment of what is now known as Zopissa, a peculiar gum used by the ancients for the preservation of wood and cloths.

The Papier Mache of the Chinese and Japanese has never yet been equalized or superseded by any of the European or American manufacturers, and from the above given extracts from English publications, we can see that our neighbors over the water begin to show that they are not remaining behind in the general progress.

ITS USE AS AN INSULATOR.

The following extract from the London *Times* September 1st of the present year, foreshadows another important improvement: "But what strikes us most at the present time," says the journal, "just after a second failure to establish telegraphic communication with America, is the confident assertion of Colonel Szerelmey's friends, well known in several circles, that by the use of this Zopissa paper alone, of all the materials at present known, can a perfect electric cable be formed. We were shown a rope of less than an inch in diameter, with an ordinary copper wire projecting at each end through the center. This rope was formed neither of hemp, india-rubber, gutta percha, cork shavings, nor any ordinary recommended covering, but simply of Zopissa paper. It is almost impossible that it can break; it will not stretch, and thus throw the strain on the copper wire, although it is perfectly flexible. Lastly, it has been reported by some of the most skilled electricians of the day as being perfect in insulation and other respects. Now, if anything like what we have heard as to the practicability of this discovery and its application to so many of the purposes of life, its cheapness, its durability, *its comparative safety from fire*, etc., be feasible, it is high time that the public took pains to be thoroughly informed on the subject."

MECHANICS' WAGES are advancing in England. The cabinet-makers in London lately demanded an advance of ten per cent. on all kinds of work, and received it. Wages are also advancing all through the iron districts. This is one of the expected and legitimate results of the great revolution movement recently set on foot in the Eastern States for the procurement of skilled labor from Europe. The policy heretofore adopted of building up manufacturing enterprises in this country which can compete with the pauper labor of Europe, by a system of protective duties, is to be, in a great measure, abandoned; and the same end is to be gained by drawing off the skilled labor of England to this country, by the offer of high wages and the facilities of emigration, until the English manufacturer shall be compelled, by the very scarcity of labor, to raise the price of wages to a standard so near to our own, as to place the two countries on equality of footing in that particular. It is not proposed to *degrade* the American operative to the condition of a mere toiling animal; but rather to *elevate* the European laborer to the American level—to a position in which his toil will secure for him the means of a decent and comfortable living. The enterprise is likely to succeed, too; and not only America but Europe, also—the great producing classes of the world everywhere—will be benefited by the movement. We may be compelled to pay a little more for our broadcloths and linens, our silks and satins, our railroad iron and our cutlery; but the gold with which they are now purchased, and which finds its way into the coffers of European bankers, will be kept in the hands of our own countrymen. The mission in which we are engaged is a great and a noble one; and one in every way worthy of our people, and of the age in which we live.

BESSEMER STEEL.—There are now seventeen large Bessemer steel works in Great Britain, producing steel at $100 per ton below the average price at which steel was sold before this new process was invented. These works are capable of producing 6,000 tons of steel weekly, equal to fifteen times the entire production of that metal before the introduction of the Bessemer process, and effecting an annual saving in the cost of steel in Great Britain alone of over $30,000,000! By the extensive cupolas and heavy hydraulic machinery, connected with some of the largest of these steel works, three men are enabled to produce one hundred tons of Bessemer steel per day. Perhaps no discovery, if we except the steam engine, has proved of such immense importance to the world as this.

Improvement in Making Steel Castings.

Mr. Thomas E. Vickors, of Sheffield, England, has recently patented what is claimed to be an important improvement in the manufacture of steel castings, which he describes as follows:

My invention of improvements in the manufacture of steel castings relates more particularly to casting heavy masses of steel, such as wheel-tires, gun-blocks, crank-axles, and other masses. The object of the invention is to prevent formation of large crystals, which are objectionable in steel castings. To this end, when the metal has been poured into the mould, or while it is being poured in, motion is imparted to the mould, so that the metal being in a molten or liquid state, is kept in continual motion or agitation. I do not confine myself to any particular motion, but I prefer an oscillating, reciprocating, or rocking motion, whereby the liquid metal will be gently agitated or moved in the mould. When the article to be cast is circular, such as railway-wheels or tires, an oscillating or rocking movement of the mould will be found sufficient to set the molten metal in motion, and thereby prevent the formation of large crystals. For some articles an intermittent circular motion will be preferable, while for others a reciprocating movement will answer the purpose. Other motions or compound movements may be advantageously employed in some instances. The particular motion to be used for the purpose of my invention must, therefore, be left to the discretion of the manufacturer. The most convenient method of carrying out my invention is to mount or place the mould on a frame, to which the required motion can be imparted either by the hand of the workman or by mechanical means, such as by the use of a crank, eccentric, or other equivalent mechanism, and this motion may, if desired, be continued until the metal is quite set.

NEW APPARATUS FOR SEEING THROUGH WATER.—The last number of the Edinburg *Review* says:

Currents in the very bed of a river or beneath the surfaces of the sea, may be watched, as Mr. Campbell informs us, by an arrangement which the smugglers used in old days. They sank their contraband cargo when there was an alarm, and they searched for it again by the help of a so-called telescope. It was nothing more than a cask with a plate of strong glass at the bottom. The man plunged the closed end a few inches below the surface, and put his head into the other end, and then he saw clearly into the water. The glare and confused reflection and refractions from and through the rippled surface of the sea, were entirely shut out by this contrivance. Seal hunters still use it. With this simple apparatus, the stirring life of the sea-bottom can be watched at leisure and with great distinctness. So far as this contrivance enables men to see the land under the waves, movements under water closely resemble the movements under air. Sea weeds, like plants, bend before the gale; fish, like birds, keep their heads to the stream, and hang poised on their fins; mud clouds take the shape of water clouds in air, impede the light, cast shadows and take shapes which point out the directions which currents flow. It is strange at first, to hang over a boat's side peering into a new world, and the interest grows. There is excitement in watching big fish swoop like hawks out of their sea-weed forest after a white fly sunk to the tree-tops to tempt them, and the fight which follows is better fun when plainly seen. (Vol. 1, p. 67.) Mr. Campbell suggests plate glass windows in the bottom of a boat; it would bring men and fish face to face; and the habits of the latter could be leisurely watched.

IMPORTANT INVENTION.—The invention of Ebenezer Danforth, of Geneva, Illinois, by which steam can be generated without the least risk of explosion, has been patented and sold to a New York company, with a capital of $2,100,000, for the manufacture of the apparatus.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

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Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the MINING AND SCIENTIFIC PRESS. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The policy secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensues. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable, and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospect of success by further efforts, are invited to avail themselves of our unequalled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved on each principal part. When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: DEWEY & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is then registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the several ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

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Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

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On every application for a design, for 3 yrs and 6 mos...	$10
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N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

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American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

San Francisco:

Saturday Morning, Jan. 20, 1866.

NEW QUARTZ MILL—RICH LODE.—The vicinity of Coulterville, in Mariposa county, is noted for its great number of quartz lodes. The great mother vein running through the State passes through the town, and in almost every direction the county is intersected with rich paying lodes. Among the number, the Louisiana lode stands prominent for extent and richness. The Louisiana claim contains 3,500 feet, and varies from three to eight in width. A tunnel 200 feet in length cuts the vein at the depth of 100 feet from the surface, which is also reached by a shaft at the point of intersection. The property was purchased by Judge Heslep, during the past summer, who has associated with him his brother, W. G. Heslep, of Tuolumne county, and his son, P. C. Heslep, in its ownership and management. Since the purchase, extensive improvements have been made. A new engine, capable of driving from fourteen to twenty stamps, has replaced the old machinery. A Rix, Logan & Co.'s patent hammer mill is also added. A separate hoisting and pumping engine is also erected, making the mill one of the most complete in the State. The rock is a rich sulphuret, the quartz ranging in value from $10 to $50 per ton, and the sulphurets from $100 to $500 per ton. The great difficulty of working sulphurets, as is well known, is in the amalgamating process. Owing to the presence of sulphur and iron the gold cannot be saved without much trouble. The property was purchased with a full knowledge of the difficulty of saving the gold, and to meet the difficulty, Messrs. Heslep have erected one of Hagan's patent desulphurizing furnaces, through which all the sulphurets pass before being crushed. The process is simple, consisting only in the application of burning hydrogen gas to the rock in the furnace. The rock, it is claimed, is effectually decomposed by the application, and is rendered so friable that double the quantity can be crushed in a given time over the rock in its unprepared condition. The expense of this process does not exceed one dollar per ton, including the handling. As far as tried, the mill as well as the desulphurizing process, is said to be a complete success. The application of the Hagan's deoulphurizing process, it is stated, controls the most rebellious ores, enabling the operator to save within ten per cent. all the gold in the rock. The operations of the Messrs. Heslep is viewed with great intent by quartz miners, particularly the owners of sulphuret veins.

[*Continued from 1st Page.*

SAN FRANCISCO.

L B Clark	A J Snyder
J Andrews	A C Knox
Hiram Arents	W P Poole
George Hearst	John B Owens
M D Boruck	A W Stratton
C F Wood	C S Cutter
J N Pierson	W H Manning
William Hollis	A T Dewey
H C Bennett	W B Ewer
John Hemsley	S H Alley
William H Foye	E D Waters
L W Getchell	A L Tubbs
H S Fitch	H L Dodge.

SHASTA.

J P Jones.

SIERRA.

Daniel Glavin	A T Langton
Lewis Reynolds	G Meredith
M A Singleton	J W Moyle.

SISKIYOU.

L M Foulke	Thomas H Steele
E Wadsworth	J K Luttrel.

SONOMA.

J L Downing.

TRINITY.

J C Dorr S P Messick.

TULARE.

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G F Whiteman	J W Freeman.
H W Briggs	

TUOLUMNE.

Allen Oliver	George S Evans
A B Preston	Otis Perrin
S S Turner	L J Hogle
Frank Heslep	J E Goodall
L. Gilson	Oliver Wolcott.
E L H Gardiner	

YOLO.

C F Reed	W B Freeman
I N Hoag	George Williard.

YUBA.

R L Crary	Henry Videau
T B Simpson	Benjamin Chadwick
Dr. Teegarden	H Hogarth
William Carpenter	A F Williams.
C E Filkins	

On motion, the presiding officers were made the permanent officers of the Convention. A Committee on Resolutions was appointed by the Chair, consisting of Messrs. Pierson of San Francisco, Rose of Amador, Foulke of Siskiyou, Gaskill of Butte, Leonard of Calaveras, Roberts of Nevada, Yule of Placer, Goodman of Plumas, and Wolcott of Tuolumne

I. N. Hoag said he was informed that the Assembly had to-day appointed a Committee of five to bring before this Convention the subject of establishing, in connection with an Agricultural and Art College, a Department on Mining and Assaying, and he therefore offered the following:

Resolved, That there be a Committee of five appointed by the Chair to confer with a like Committee of the Assembly upon the establishment of a Department of Mining and Assaying, in connection with an Agricultural and Mechanics' Art College.

The resolution was adopted and Committee appointed, consisting of Messrs. Hoag of Yolo, Ewer of San Francisco, Moyle of Sierra, Filkins of Yuba, and Williams of El Dorado.

A large variety of resolutions were presented. A portion were read and referred without debate in accordance with a vote of the Convention—finally the balance, by action of the meeting, were referred without reading.

Adjourned till ten o'clock on Thursday.

SECOND DAY.

Convention met at 10 o'clock, and without any important action, shortly adjourned till 1 o'clock to allow the Committee on Resolutions further time to report.

At 1 o'clock the Convention again opened, and the following preamble and resolutions were reported by the committee:

WHEREAS, Since the discovery of gold mines in California, it has been the policy of the General Government to allow all those who desired to mine for the precious metals in this State a free and unrestricted right to search for and discover the same, and when found, to hold and develop their several claims, subject only to such restrictions and rules as might be adopted by Conventions held by those who were engaged in actual mining enterprises in the several mining districts of the State; and, whereas, we believe that by the adoption of that policy the mining interests of the State have been developed more thoroughly and to a much greater extent than they would have been under any other policy that could have been adopted; and whereas, legislation for the survey and sale of mineral lands is threatened in the Congress of the United States, and it is seriously proposed to destroy the property interests which have been created in this State, under the license of the General Government, for seventeen years past, and to revolutionize the whole system of mining business and tenures under which the mines have been so far developed, the State has prospered, the Government has been supplied with the sinews of war, trade with advantageous markets, and the revenue a valuable and increasing resource; therefore, be it

Resolved by the miners of California, in General Convention assembled, That we are opposed to any survey, lease or sale of the mineral lands of this State, as injurious to the best interests of the General Government, and of this State, and utterly ruinous to the mining communities.

Resolved, That any increase of the tax upon the proceeds of the mines, would be onerous and injurious to the mining interests of this coast.

Resolved, That the bill introduced into the Senate of the United States by John Sherman, of Ohio, is singularly calculated to work the utmost confusion and loss to the present holders of mining property, who have invested their labor and capital in developing the mines; to destroy the vast canal interests of the State, the existence of which is necessary to the prosecution of mining, and to expel the great bulk of the population of the mining districts from their homes, their business and possessions.

Resolved, That the miners of California respectfully petition the Congress of the United States to respect the rights and property interests which the policy of the Government, long continued, has created and fostered.

Resolved, That we indorse the action of the Legislature of this State requesting the delay in the issuance of patents to the Central Pacific Railroad Company, or any other railroad company; until the Government has employed effective measures to segregate the mineral from the agricultural lands lying within the lines of the grant to the railroad company, and, while willing and anxious to aid and encourage in the construction of said road—the great national highway—we most emphatically protest against the cession of a vast section of mineral and timber lands for that purpose, involving the sacrifice and destruction of private rights already vested.

Resolved, That a Committee of five be appointed by the President of this Convention, the said President to act as Chairman thereof, to prepare a memorial to Congress embodying the sentiment contained in these resolutions, and to cause the same to be presented, through our delegation in Congress, to the President of the United States, the Secretary of the Interior, and Commissioner of the General Land Office.

Resolved, That a copy of these resolutions be forthwith forwarded by the officers of the Convention to each of our Senators and Members of Congress, with the request of the Convention that the same be laid before their respective Houses of Congress.

The several resolutions were read and adopted *seriatim*, with some slight amendments of a verbal character, and telegraphed to Washington the same evening.

Mr. Watt moved and carried that a committee of miners be appointed, whose duty it shall be to watch over and protect the interests of the miners of California, with power to call Miners' Conventions whenever they should think it necessary; such committee to consist of one from each county, to be selected by the delegations.

EVENING SESSION.

The Convention having adjourned at 3:25 P. M., re-assembled at 7:30.

The Committee on Resolutions recommended the adoption of the following:

Resolved, That in the opinion of this Convention the Legislature should at the present session enact a few plain, comprehensive and uniform laws in relation to the location, possession and evidence of abandonment of quartz mines situated upon the public lands within this State.

A minority of the committee offered the following as a substitute:

Resolved, As the sense of this Convention, that no legislation by the State Legislature upon mining tenures is desirable.

A long and earnest debate ensued—Messrs. Watt, Foulke and Briggs, speaking in favor of the adoption of the substitute, and Messrs. Belden, Hearst, Yule, Bodfish and Oliver supporting the original resolution. The yeas and nays were called for on the vote for the adoption of the substitute with the following result.

Alameda.—Noes: Wheeler, Eagar, Burr—3.

Amador.—Ayes: Mahoney, Rose, Hill, Gaus, Stewart, Hauford, Fleming, Briggs, Phillips, Purdy—10.

Noes: Belding, Frink, Jr.—2.

Butte.—Noes: Plum, Lassey, Pierson, Darrah, Ewer, Smith, Smith, Waldyer, Gaskill, Powell—10.

Calaveras.—Noes: Briggs, Hardy, Sawyer, Blake—4.

Colusa.—Noes: Robinson, Wilber.

El Dorado.—Ayes: Foster, Doncaster, Williams—3.

Noes: Schriber, Burnham, Smith, Morgan, Griffith, Jones, Campbell, Stowe, Bodfish—9.

Fresno.—Ayes: Mace—1.

Humboldt.—Noes: Huestis—1.

Monterey.—Noes: Hearst—1.

Nevada.—Ayes—Watt, Findley, Daniels, Bosworth, Cronise, Northey, Brady, Coleman, Miller, Leach, Attwood, Sykes, Davidson, Sargent, Atkins, Williams, Begole, Coombs, Neece, Buckman, Martin, Spencer, Rhea—23.

Noes: Phelps, Belden, Pattison, Crittenden, Morgan, McCown, Welch, Fenton, Abbey, Spooner, Dornin, Cadwallader, Everett, Lewis, Hatch—15.

Placer.—Ayes: McClure, Duck, Dods, Bumpus, Foster, Mallett, Neff, Kneeland, Ewalt, Lawrence—10.

Noes: Smith, Bowman, Arnold, Colegrove, Teffe, Gaylard, Benton, Palmer, Garland, Watson, Bosquit, Reamer, Scott, Yule, Stevenson, Miller, Baldwin, Tuttle, McGonegal, Carpenter, Largre—21.

Plumas.—Noes: Goodwin—1.

Sacramento.—Ayes: Bigler, Barton—2.

Noes: Montgomery, Mumford, Beck, Kendall, Park, Bowstead, Gear, Hopper—8.

San Bernardino.—Ayes: Satterwhite—1.

San Francisco.—Noes: Hearst, Wood, Pierson, Hollis, Bennett, Helmsley, Foye, Fitch, Snyder, Poole, Cutter, Manning, Dewey, Ewer, Alley, Waters—15.

San Joaquin.—Noes: Merwin—1.

Sierra.—Ayes: Glavin, Moyle—2.

Noes: Langton—1.

Siskiyou.—Ayes: Foulke, Steele, Luttrell—3.

Trinity.—Noes: Dorr—1.

Tulare—Ayes: Whiteman, Briggs—2.

Tuolumne.—Noes: Oliver, Evans, Perrin, Wolcott—4.

Yolo.—Noes: Reed, Hoag—2.

Yuba.—Ayes: Chadwick—1.

Noes: Crary, Carpenter, Filkins, Videau, Williams—5.

Total vote, 166; ayes (against legislation), 58; nays (favoring legislation), 108.

The question then occurred on the original resolution, which was carried by 99 ayes to 51 nays.

The following names were announced from the several counties as the Miners' State Central Committee, in accordance with Mr. Watts' resolution:

Messrs. E. D. Wheeler of Alameda, T. L. Jackson of Alpine, R. C. Downs of Amador, N. D. Plum of Butte, Thomas Hardy of Calaveras, E. Wilhur of Colusa, Bart Morgan of El Dorado, T. S. Benoist of Humboldt, S. N. Murch of Klamath, M. Coghlan of Lake, J. S. Sargent of Monterey, A. A. Sargent of Nevada, George W. Reamer of Placer, W. A. Bollinger of Plumas, C. T. Wheeler of Sacramento, George Hearst of San Francisco, F. J. Merwin of San Joaquin, W. T. Hopping of Shasta, M. A. Singleton of Sierra, Thomas H. Stcelo of Siskiyou, J. L. Downing of Sonoma, W. I. Hupp of Trinity, J. W. Freeman of Tulare, Allen Oliver of Tuolumne, O. F. Reed of Yolo, A. F. Williams of Yuba, B. T. Hill of San Luis Obispo, and J. E. Goodell of Mono.

[The Committee subsequently organized by electing Hon. A. A. Sargent, Chairman, and C. T. Wheeler of Sacramento, Secretary. Voted that five members constitute a quorum.]

The following resolution, offered by Hon. Thos. Findley of Nevada, was adopted by the Convention:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

I. N. Hoag, in behalf of the committee of five appointed to confer with the Legislative committee, submitted a report, recommending in substance that the Legislature proceed at once to the establishment of a Mining, Agricultural and Mechanic Art College; and that the necessary steps be taken to secure the benefit of the Congressional land grant, which has been made to this, in common with all the States, for the endowment of such an institution. We regret that our space to-day will not admit of the appearance of the report of this committee in full. We shall allude to it more at length next week. After some little debate, the recommendation of the committee was adopted, and a committee of five appointed to act with a similar committee of the Legislature to devise a plan for the organization of said College. By provision of the resolution, the Chairman was constituted a member of the committee, to whose name the following were added: Ayre of Calaveras, Snyder of San Francisco, Mallet of Placer, and Hanford of Amador.

After a vote of thanks to the officers of the Convention, for the manner in which they had discharged their duties, the Convention adjourned *sine die*.

We shall speak further of the proceedings next week.

FRANCE has now seventeen large commercial steamers running between Europe and the American continent and her colonies. Only a few years ago the Mediterranean service was all that this country produced in the way of a steam commercial navy. In May next, five steamers will run constantly between Havre and New York.

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Apacho Chief			Annual Meeting, Jan 27
Arbitrios, Chihuahua, Mex., $1			Feb 3—Feb 15
Adams, Petroleum, $5			Jan 11—Jan 25
Alban, Storey co., Nev., $1			Jan 9—Jan 20
Alpha, Storey co., Nev., $50			Jan 18—Feb 17
Bunker Hill, Amador co., $5			Jan 6—Jan 20*
Blue Ledge, Lander co., $1			Feb 3—Feb 19*
Blue Ledge, El Dorado co., $1.50			Jan 13—Jan 27*
Black Diamond Coal			Meeting Jan 22
Buckeye, Lyon co., Nev., $3			Jan 3—Jan 20
Bullion, $10			Levied—Dec 26
Bunker Hill, El Dorado co., $1.50			Jan 20—Feb 2
Consolidated Silver Hill M Co., Nov., $2			Feb 10—Feb 26*
Capitola, 20c			Feb 8—Feb 22
Capital			Meeting Feb 6
Chipioneua, Sonora, Mex., $5			Jan 27—Feb 7
Cassell, Nevada co., Cal., $5			Feb 10—Feb 26
Caledonia Tunnel, Gold Hill, Nev., $2			Dec 23—Feb 3
Chollar-Potosi, Storey co., Nev., $100			Jan 21—Feb 1
Confidence, Storey co., Nev., $25			Jan 22—Feb 6
Cosala, Sinaloa, Mex., $1			Jan 29—Feb 10
Diana, Lander co., Nev., $10			Jan 20—Feb 6*
Daney, Lyon co., Nev., $1			Jan 15—Jan 31
Dios Padre, Alamos, Mex., $2			Feb 2—Feb 14
Emerald Copper, $1			Feb 10—Feb 24
Elk Horn, Petroleum, 50			Feb 7—Feb 23
Exchequer, Storey co., Nev., $2			Jan 17—Feb 1
Franco-Americana, Mex., 25c			Jan 26—Feb 9
Goodwin, Lander co., Nev., $2			Dec 16—Dec 30*
Great Western Tunnel Co., Aurora, Nev.			June 27—Feb 10*
Geo Washington, Alpine co., $1			June 27—Feb 13*
Hanscom, Copper, Del Norte co., 15c			Jan 20—Feb 3*
Hornet, Lander co., Nov., $1			Jan 20—Feb 6*
Honest Miner, Lander co., 50c			Jan 13—Jan 29*
Hale & Norcross, Storey co., Nev., $25			Jan 15—Jan 29
Jewett, Storey co., Nev., $1			Jan 6—Jan 20*
Joe Lane, Lander co., 50c			Jan 13—Jan 29*
Kentucky Copper, Calaveras co., $1			Jan 20—Feb 7*
Lady Franklin, Alpine co., 50c			Jan 6—Jan 26*
La Victoire, Mariposa co., $2			Jan 3—Jan 22
Lady Bryan, Storey co., Nev., $1			Feb 5—Feb 16
London Quartz, 50c			Feb 20—March 10
Mumaluke			Meeting Jan 31
Mina Rica de las Flores, Calaveras co., 50c			Jan 2—Jan 22
Nevada, Lander co., $1.50			Jan 13—Jan 29*
Napoleon, Calaveras co., $7			Jan 23—Feb 3
Nuestra Senora de Guadalupe, Durango, $1			Jan 27—Feb 14
New Idria			Meeting Feb 8
Oxford Beta, Esmeralda co., Nev., 50c			Feb 17—March 3*
Owen's River Canal co., 40c			Feb 3—Feb 19*
Old Colony, Reese River, $6			Jan 14—Jan 27
Overman, Storey co., Nev., $10			Feb 9—Feb 26
Paragon, Humboldt co., 25c			Jan 26—Jan 26*
Peninsula, San Antonio, Lower Cal., $10			Jan 15—Jan 29
Refugio, Chihuahua, Mex., $2½			Feb 10—Feb 24
Ruppahoc, Sinaloa, Mex., $2 50			Jan 17—Jan 31
Salamander, Calaveras co., Cal., 20c			June 27—Feb 10*
Siempre Viva, Sinaloa, Mex., $2 50			Jan 6—Jan 20*
Salambo, Tuolumne co., 50c			Jan 3—Jan 22
Sierra Valley, Plumas co., $1			Jan 5—Jan 20
Santiago, Lyon co., Nev., $1			Jan 22—Feb 10
Sweet Vengeance, Yuba co., $1			Jan 20—Feb 6
Sierra, Douglas, co., Nev., $3			Jan 15—Jan 27
Shoshone, Lander co., Nev., $1			Jan 29—Feb 12
Santiago, Lyon co., Nev., $1			Jan 22—Feb 10
Tuolumne Mountain, 50c			Feb 10—Feb 26
Trinidad and San Jose, Sinaloa Mex., $10			Jan 18—Jan 22
Tirlia S M co., $3			Levied, Nov 25
Union Mattole, Humboldt co., $5			Jan 19—Feb 6*
Wide West, Alpine co., $3			Feb 3—Feb 21*
Yuba, Brown's Valley, $3			Feb 3—Feb 17*
Yankee Blade, Reese River, Nev., $15			Jan 13—Jan 29*
Yosemite, Humboldt co., Nev., $1 25			Jan 20—Feb 6*

*Those marked with an asterisk (*) are advertised in this ournal.

A HEAVY MORTGAGE.—The Cincinnati *Gazette* says that a mortgage deed was recently recorded in the office of the recorder of Trumbull county (Ohio), given by the Atlantic and Great Western railway company to John R. Penn, as trustee, for thirty millions of dollars, for which seven per cent. bonds are to be issued. The instrument required one thousand dollars of stamps.

WATER WHEELS.—A gentleman in this city recently received a letter from a young lady in Boston, which, among other items of information, contained the following: "I suppose you know that 'water-falls' are out of fashion. Ladies now wear what are called 'water-wheels'—mother and I have both got them."

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, January 20th, 1866.

There is no material change to note in the condition of the money market, and since the date of our last reference transactions in almost every department of business have been very much restricted. Bank accommodations continue to rule at about 1¼ ₱ cent. per month, and the tendency of the market is to greater ease.

Receipts of treasure from domestic sources since the 1st inst., show a material falling off, as compared with a like period last month, and amounted to less than $2,000,000. The Branch Mint in this city re-opened for the transaction of business on Thursday last, having been closed for several weeks past, to adjust accounts for the year 1865.

Bullion was in active request for yesterday's steamer, owing in part to the light receipts from the interior, and gold bars were sold at 850 and 860. Silver was also in good demand at ½ ₱ cent premium for bars of average fineness.

Legal Tender Notes have been more active at declining rates, and considerable sales were made at 72@70, closing at 70 bid. Our latest telegraphic advices from the East quote gold at 139 on the 17th instant.

The mining share market has exhibited little or no life this week, and the recorded sales are lighter than for some time past. Nevada advices are meager, but, so far as we can learn, no important changes have taken place in the appearance of any portion of the Comstock lode.

During the year 1865, the total dividends disbursed to shareholders by the Gould & Curry, Savage, Yellow Jacket, Imperial, Belcher, Empire, and Chollar companies amounted to over $1,900,000; and the aggregate assessments levied by the Savage, Yellow Jacket, Chollar-Potosi, Crown Point, Belcher, Alpha, Ophir, Bullion, Overman and Sierra Nevada companies, slightly exceeded $1,950,000.

Gould & Curry declined from $870 to $800, rose to $860, fell to $835, and then sold at $820, closing at $825. This company have a very considerable accumulation of ore at their mill, and the dump at the mine is also full to repletion. Up to this time, however, the severity of the weather in Nevada has not interfered with hauling.

Savage has been actively dealt in, and some 100 feet changed hands, receding from $700 to $657½, rallying to $690, dropping to $660, and selling yesterday at $630@635. The winze from the lower level is now down some 85 feet, and ore was found to a depth of 62½ feet. A drift 20 feet to the east will, it is thought, meet the same body. The bottom of this winze is in porphyry, showing a small stratum of metal dipping to the east. The working shaft is soon to be started for the 6th level, 80 feet deeper than the 5th. The northwest body on the latter level is said to look well, and a deposit of good ore has recently been cut on the sill floor of the 1st station toward the west.

Yellow Jacket fell from $460 to $410, seller 25, rallied to $430, receded to $412, seller 10, and sold yesterday at $400@370. At these rates some 250 feet in all were dealt in. During the week ending Jan. 8th, 820 tons of second-class ore were extracted from the mine. The company's mill worked some 450 tons, yielding $13,743 (an average of over $30), and 258 tons were crushed at outside mills, producing $8,561, or $29.93 per ton.

Crown Point has met with trifling sales, declining from $585 to $545, and then selling at $550. During the week ending January 12th, 403 tons of ore were taken from this mine, one-half of which came from the lower level. The west body of ore in the latter continues to look well in the drifts running north and south on the lode. This ore is now averaging about $40 per ton, and one or two outside mills are soon to be employed.

Ophir fell from $330 to $320, rose to $335, and sold yesterday at $322½ @325. The south drift from the 9th gallery is now in some 43 feet, nearly as far as the former one extended. A small body of ore, worth from $50 to $70 per ton, has been found between the 5th and 6th galleries, which renders it unnecessary to send rich ores to the River mill, in order to bring up the average of the poorer. Receipts of bullion thus far, the current month, exceed $31,000.

Hale & Norcross has been in fair request, and small sales were made, advancing from $305 to $325, receding to $305, and selling at the close at $315. Developments are progressing slowly. At present an air connection is being made from the foot of the incline.

Chollar-Potosi fell from $150 to $137, then sold at $240, buyer 30, (assessment delinquent,) receding to $232, rallying to $234, and selling yesterday at $230@224. During the week ending January 12th, 324 tons of ore were sent to custom mills, 102 tons were sold at $8, 60 tons at $5, and 238 at $3 per ton. The new shaft is now timbered to a depth of 552 feet, and the drift to the ledge in 135 feet.

Alpha steadily declined from $170 to $90, seller 30, then sold at $100, closed at about $300—assessment of $200 per foot delinquent.

Empire Mill and Mining Company sold at $240@210 per share closing at $215 bid. Belcher fell from $125 to $110, rallied to $250, (assessment delinquent,) and sold yesterday at $220. The various drifts have disclosed nothing new recently.

Imperial fell from $117 to $95, seller 60, then rose to $111, and was dealt in at the close at $107@108½. The first two shipments of bullion from the mine this month amounted, in the aggregate, to $34,000, as against $27,000 for a corresponding period last month.

Overman has been dealt in within a range of $44@40, closing at $36 bid. Bullion steadily declined from $37 to $33, and closed at $32 bid. Exchequer fell from $8¼ to $6. Sierra Nevada declined from $11 to $9, and closes at about $9.

Union Insurance Company was sold at $118; Fireman's Fund at $121, and Spring Valley Water at $56½; California Steam Navigation was dealt in at 62@61½, closing at $62 bid.

The aggregate sales of stocks since Saturday last amounted to $573,868.

San Francisco Stock and Exchange Board.

SAN FRANCISCO, Jan. 20, 1866.

	Bid.	Asked.
United States 7 3-10ths	$ 71	$ 72
Gov. Legal Tender Notes	70	70¼
State Bonds, 7 ₱ cent	83	89
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	65	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	50	55
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	60	..
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	65	80
California Navigation Co	60	61
State Telegraph Stock	25	..
San Francisco Gas Co	104	105
Sacramento Gas Co	..	75
Spring Valley Water Co	50	57
RAILROADS.		
Sacramento Valley Railroad	..	
Omnibus Railroad	43	45
Central Railroad Co	..	65
North Beach and Mission	42	44
MINING STOCKS.		
Ophir	$ 320	$ 325
Gould & Curry	820	825
Empire M. & M. Co	....	....
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	625	640
Chollar-Potosi	226	228
Hale & Norcross	310	315
White & Murphy	....	....
Sierra Nevada	7	8
Daney	..	..
Burning Moscow	..	..
Lady Bryan	..	..
Sacramento & Meredith	....	....
Burnside	....	....
North American	....	....
Baltimore American	....	....
Yellow Jacket	400	405
Overman	40	41
Cedar Hill Tunnel	....	....
Wide West	5	8
Crown Point	545	550
Antelope	....	....
Emeralda	1	5
Ætna	....	....
Real del Monte	..	15
Bullion, G. H.	32	33
Buckeye	....	....
Dick Sides	....	....
Imperial	109	110
Alpha	300	305

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	@ 7 00	
Do Superfine	@ 6 75	
Corn Meal, ₱ 100 lb	@ 3 50	
Wheat, ₱ 100 lb	2 25	@ 2 35
Oats, choice, ₱ 100 lb	1 90	@ 2 00
Barley, ₱ 100 lb	1 10	@ 1 15
Beans, ₱ 100 lb	3 50	@ 4 50
Potatoes, ₱ 100 lb	1 00	@ 1 10
Hay, ₱ ton	15 00	@19 00
Live Oak Wood, ₱ cord	8 00	@10 00
Beef, on foot, ₱ lb	6@	7
Beef, extra, dressed, ₱ lb	12½c@	15
Sheep, on foot	1 00	@ 2 00
Hogs, on foot, ₱ lb	9 @	10
Hogs, dressed, ₱ lb	13 @	14
Groceries, Etc.		
Sugar, crushed, ₱ lb	16 @	—
Do China	10 @	12½
Coffee, Costa Rica, ₱ lb	27½ @	—
Do Rio	26 @	—
Tea, Japan, ₱ lb	85 @	1 00
Do Green	70 @	1 00
Hawaiian Rice, ₱ lb	10 @	—
China do	8 @	10
Coal Oil, ₱ gal	1 40 @	—
Candles, ₱ lb	24 @	27
Ranch Butter, ₱ lb	55 @	65
Isthmus do	35 @	42½
Cheese, California, ₱ lb	20 @	26
Eggs, ₱ doz	45 @	47
Lard, ₱ lb	22 @	23
Ham and Bacon, ₱ lb	25 @	—
Shoulders	20 @	22
Soap—Palo & C. O	10 @	12
Castile	13 @	14

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	75@	—
do pickled ₱ lb	60@	70
do Oregon	35@	40
do New York, ₱ lb	45@	55
Cheese, ₱ lb	25@	35
Honey, ₱ lb	30@	40
Eggs, ₱ doz	60@	75
Lard, ₱ lb	@	25
Hams and Bacon, ₱ lb	28@	30
Cranberries, ₱ gal	75@	—
Potatoes, sweet, ₱ lb	5@	8
do Irish, ₱ lb	1@	2½
Tomatoes, ₱ lb	5@	8
Onions, ₱ lb	4@	6
Apples, No. 1, ₱ lb	4@	10
Pears, table ₱ lb	3@	10
Plums, dried, ₱ lb	15@	25
Peaches, dried, ₱ lb	15@	25
Grapes, ₱ lb	5@	15
Oranges, ₱ doz	75@	1 00
Lemons, ₱ doz	1 00@	1 50
Chickens, apiece	75@	1 00

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	40 @—
American Pig ₱ ton	39 @40
Refined Bar, bad assortment, ₱ lb	8 @—
Refined Bar, good assortment, ₱ lb	3½@—
Boiler No. 1 to 4	4 @ 5
Plate No. 5 to 9	4½@ 6
Sheet No. 10 to 15	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—

COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing ₱ lb	32 @34
Sheathing, Old	20 @30
Sheathing, Yellow	30 @—
Sheathing, Old Yellow	12 @13
Bolts	13 @16
Composition Nails	30 @32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	14 @15
Plates, I C Charcoal	12 @13
Roofing Plates	11 @ 12
Banca Tin Slabs, ₱ lb	41 @42½

STEEL.—English Cast Steel, ₱ lb 12½@16

QUICKSILVER.—Per lb — @65

For export 55 @—

ZINC.—Sheets ₱ lb 9½@10

LEAD.—Pig ₱ lb 7 @ 8

Sheet	10 @12
Pipe	10 @12
Bar	9½@10

BORAX.—California, ₱ lb 20 @23

REESE RIVER.—The following are the ruling prices at Austin:—Good miners receive from $4 to $5 a day in gold, and get board at $10 per week; masons, carpenters, and mechanics $6 to $8; laborers are paid from $50 to $60 per month and board. Flour is $14 per hundred; butter 75 cents per pound, cheese, 50c.; bacon, 45c.; dried fruits, 37½c.; beef, 12@15c.; potatoes, 10c.; feed barley, 15c.; hay, 4c.; eggs, $1.25 per dozen, and other produce in the same proportion.

Even the tenderest plants force their way up through the hardest earth, and the crevices of rocks; but a man no material power can resist. What a wedge, what a beetle, what a catapult, is an *earnest* man! What can resist him?

The mind is like the body in its habits—exercise can strengthen as neglect and indolence can weaken it. Both are improved by discipline, both ruined by neglect.

It is very well to blush when you are detected in a mean act; but you had a great deal better blush when you thiok of committing it.

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San Francisco, Oct. 12, 1865. .5v11tf

A Business Compliment.

PETALUMA, Oct. 4, 1865.

MESSRS. DEWEY & CO.—Gentlemen: Your note informing me that my patent for Crushing and Baling Machine is ordered to issue is at hand. Please accept my thanks for the prompt and business-like manner with which the case has been conducted, and inclosed find twenty dollars for balance Government fees. Respectfully, etc.,

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12v11-1m E. H. WILSON, Secretary

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ARCTIC INSURANCE CO., N. Y., Assets	700 000
WASHINGTON INSURANCE CO., N. Y., Assets	700,000
NEW YORK ACCIDENTAL INS. CO., Assets	260,000
CONNECTICUT MUTUAL LIFE INS. CO., Assets	8,000,000

POLICIES issued on Freights, Cargoes and Treasure from and to all parts of the World.

FIRE INSURANCE POLICIES issued on all kinds of Insurable Property in Country or City.

ACCIDENTAL POLICIES issued on the most favorable terms, insuring the payment of stated sums in the event of death, or a fixed Weekly Compensation for Total Disability for the term of twenty-six weeks for any one accident. These Policies cover all kinds of Accidents, and are issued for single trips or for the year.

Losses Payable in Gold Coin of the United States.

We represent Companies

That Have Stood the Test of Years,

And offer as favorable terms as any on the Pacific Coast.

BIGELOW & BROTHER,
20v11tf **General Agents.**

MINING BLANKS

For Sale

AT THE

OFFICE OF THE MINING AND SCIENTIFIC PRESS

No. 505 Clay Street, corner of Sansome.

Blanks for Mining Companies, Secretaries, Shareholders and others, always on hand, or printed to order, at our office.

Among others are those of the following forms:

Shareholder's Proxy.

KNOW all men by these presents, that I, ... do hereby constitute and appoint ..... my attorney and agent, for me and in my name, to vote as my proxy, at a meeting of the ..... Mining Company, to be held ..... 186, according to the number of votes that I should be entitled to cast were I there personally present.

In witness whereof I have this day hereunto set my hand and seal. .....[Seal]

Dated 186

Assessment Notice.

..... Company

.....

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ..th day of ....., 186, an Assessment of .....per share was levied upon the Capital Stock of said Company, payable on the ..th day of .....186, in United States gold and silver coin to the Secretary.

Any stock upon which said Assessment shall remain unpaid on Saturday, the ..th day of ....., 186, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on ....., the ..th day of ....., 186, to pay the delinquent Assessment, together with the costs of advertising and expenses of the sale. By order of the Board of Trustees.

..... Secretary.

Office.....

NOTICE.—There are delinquent, upon the following described Stock, on account of assessment levied on the ..th day of ..... 186, the several amounts set opposite the names of the respective shareholders as follows, to wit:

Names.	No. Certificate.	No. Shares.	Amount.
Theophilus Thistle	23	14	$140 00
Peter Pipe	2	3	30 00

And in accordance with law and an order of the Board of Trustees, made on the ..th day of ...., 186, so many shares of each parcel of said stock as may be necessary, will be sold at the.....

....., on ....., the ..th day of....., 186, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

..... Secretary.

Office.....

☞ Our advertisers are furnished with blank Assessment Sale notices free of charge. Orders from the interior promptly filled, by mail or express, as may be desired.

To Publishers.

An editor and practical printer, of good experience and recommendation, desires a situation and will accept a moderate salary on trial. Address this office.

THE newest thing oot is "plampers" for hollow-cheeked damsels. The plamper is made of porcelain, pear-shaped in form, flat on one side, and bulging oot on the other. They fit on the inside of the cheeks, giving a round, plamp appearance; hence, doubtless, their name.

WHEN Sir Walter Scott was urged not to prop the falling credit of an acquaintance, he replied: The man was my friend when friends were few, and I will be his, now that his enemies are many."

LITTLE THINGS.—As daylight can be seen through very small holes, so little things will illustrate a person's character. Indeed, character consists in little acts, daily life being the quarry from which we build it up, and rough hew the habits that form and stamp it. This is so.

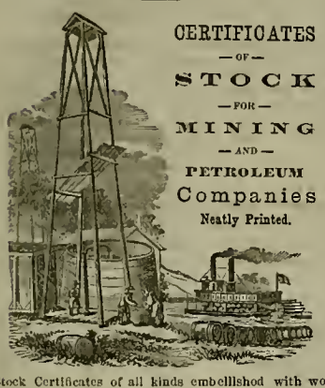
To Blacksmiths.

An excellent, strong lad, from the interior, 17 years of age, desires to learn the Blacksmith's trade. His parents wish him to engage with a reputable firm, and learn his business thoroughly. Address, or inquire at the office of the MINING AND SCIENTIFIC PRESS. 2v11tf

Mining and Scientific Press

JOB PRINTING OFFICE,

No. 505 Clay street, corner of Sansome.



CERTIFICATES
—OF—
STOCK
—FOR—
MINING
—AND—
PETROLEUM
Companies
Neatly Printed.

Stock Certificates of all kinds embellished with wood cuts and electrotypo engravings. We devoto special attention to the execution of all kinds of work required by Mining Companies, Machinists and Manufacturers.

SANTA CLARA COLLEGE, S. J.,

SANTA CLARA, CAL.

Conducted by the Fathers of the Society of Jesus.

The FIFTEENTH ANNUAL SESSION of this College will commence on

Monday, August 28th, 1865.

TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months..... $350

For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.
3v11 REV. A. MASNATA, S. J., President.

Machinists and Foundries.

GEORGE T. PRACY,
MACHINE WORKS,

Nos. 109 and 111 Fremont street, near corner of Mission,
OPPOSITE MECHANICS' MILL,
SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL
And Quartz Machinery, Printing Presses,
—AND—
MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

☞Special attention paid to Repairing.☜ qv-3

UNION IRON WORKS,
Sacramento.

WILLIAMS, HEILBRON & CO.,

MANUFACTURERS OF

STEAM ENGINES, BOILERS,
And all kinds of Mining Machinery.

Also, Hay and Wine Presses made and repaired with neatness, durability and dispatch.

Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

Front Street, between N and O streets,
14v11 SACRAMENTO CITY.

JOHN LOCHHEAD'S
STEAM ENGINE WORKS,

Beale Street, near Mission Street,
SAN FRANCISCO.

Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc.
25v9q JOHN LOCHHEAD, Practical Engineer

THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

Vulcan Iron Works Company

[ESTABLISHED 1850.]

First, Natoma and Fremont Streets.

IRON FOUNDERS,
Steam Engine and Locomotive BUILDERS,

Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition o new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery, Locomotives, Car Trucks, Car Wheels, Flouring Mills, Quartz Mills, Sugar Mills, Saw Mills, Housings and Irons; and

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR
BEATH'S AMALGAMATOR;
HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;
BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;
FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;
JONVAL'S IMPROVED WATER WHEEL;
LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

Miners' Foundry
—AND—
MACHINE WORKS,

First St., between Howard and Folsom Streets,
SAN FRANCISCO.

EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,

Machinery, Mining Pumps, Amalgamators,

Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KING.

LEWIS COFFEY. J. S. RISDON

LEWIS COFFEY & RISDON,
Steam Boiler & Sheet Iron Works.

THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.

Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

H. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!

Corner First and Mission streets,
SAN FRANCISCO.

ESTABLISHED IN 1849.

HAVING INCREASED OUR FACILITIES IN EVERY Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's improved Tractory Curve Pan, Zenas Wheeler's Improved flat bottom pan, Beldin's pan, Veatch's tubs, Prater's concentrators, Wahlee's pans, Beers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.
21v10 **H. J. BOOTH & CO.**

JOHN P. GALLAGHER. JOSEPH WEED.

GALLAGHER & WEED,
BRASS AND BELL FOUNDRY
And Lock Factory.

ALL KINDS OF BRASS AND COMPOSITION CASTINGS AND FINISHING DONE WITH NEATNESS AND DISPATCH.

CHURCH AND STEAMBOAT BELLS, OF ALL SIZES, made to order. Engineers' Gouges made and hung in the best manner. Bank, Vault, Store and Prison Locks; also Brass Padlocks and Shop Locks of various patterns, on hand and made to order.

☞ Particular attention given to casting Rudder Braces and Ship Work in general.

☞ All Jobs promptly attended to. Prices moderate.☜
No. 125 First street, opposite Minna next door to Pacific Foundry. j21f
{Removed from Oregon street, between Front and Davis

PORTLAND BOILER WORKS.

MOYNIHAN & AITKEN,
BOILER MAKERS AND SHEET IRON WORKERS.

N. B.—All kinds of Boiler and Sheet Iron Work executed at the shortest notice, and on the most reasonable terms.

Mission street, between Beale and Fremont streets, San Francisco. qy29-t

PALMER, KNOX & CO.,
Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,
SAN FRANCISCO.

MANUFACTURE ALL KINDS OF

MACHINERY,

STEAM ENGINES AND QUARTZ MILLS

DUNBAR'S IMPROVED

Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S

NEW GRINDER AND AMALGAMATOR,

HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

FULTON
Foundry and Iron Works.

HINCKLEY & CO.,

MANUFACTURERS OF

STEAM ENGINES,

Quartz, Flour and Saw Mills,

Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

SAN FRANCISCO
Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,

Manufacturers of

Marine and Stationery Engines!

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Salmon's Patent Amalgamator and Separator; Wheeler & Randall's New Grinder and Separator; Baux & Guiod's Amalgamator and Separator; W. W. Tupper's Patent Sectional Crate Bar; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings, a the lowest market rates.
6v11-1y **DEVOE, DINSMORE & CO.**

Novelty Iron Works,

Steam Engine, Boiler and Machine Shops.

STEAM ENGINES AND BOILERS, OF ALL KINDS, ON hand and Made to Order. Quartz, Saw and Flour Mills, and all other kinds of Machinery, made to order, bought, sold or exchanged.

Reynolds' Variable Cut-Off Saves from 25 to 60 per cent. of Fuel.

WINANS' ANTI-INCRUSTATION POWDER for Steam Boilers, a *SURE REMEDY*. Send for a Circular.

E. T. STEEN.

105, 107 and 109 Fremont st., cor of Mission
SAN FRANCISCO 21v9tfo

JAMES MACKEN,
COPPERSMITH,

No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to.
13v11

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the MINING AND SCIENTIFIC PRESS. 19v11tf

COMPLIMENTARY.—A friend of the MINING AND SCIENTIFIC PRESS, writes as follows: "I preserve all the numbers of the PRESS, and I find the 'Alphabetical Index,' attached to each volume, very convenient. It seems to add to the value of each number, and makee it more of an object to preserve them. A volume of newspapers, bound together without containing an index, always reminds me of a storehouse with a faulty lock; when we wish to obtain an article, valuable time is wasted before we can get at it. I think every volume of journals worth preserving, should contain an index."

THE LATROBE MINES.—Two thousand tons of copper ore were shipped from Latrobe during the six months ending January 1st. It is expected that the quantity will be considerably increased in the next six months. The mines are close to the Placerville and Sacramento Valley Railroad.

REV. DR. STONE, of Boston, having accepted a call from the First Congregational Society in this city, will, we are informed, leave the East on the 11th day of February, and may arrive here so as to preach to his new society on the 4th of March.

Benicia College.

THE TWENTY-SECOND SESSION HAS JUST OPENED. Pupils received at any time.

The Instruction is divided into three parts—The Elementary course; the English, or Scientific Course; and the ordinary College Course.

Pupils generally, and especially those in the Preparatory Departments, board at the Institution, under the direct charge of the Teachers.

For further information, send for Circular.

3v12-3m C. J. PLATT, Principal.

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful operation of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by TREADWELL & CO.,

3v12-3m Corner of Front and Market streets.

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of ALVA L. STILES, deceased. Order to show cause why order of sale of real estate should not be made.

It appearing to the said Court, by the petition heretofore prescated and filed by John M. Stiles, the Administrator of the estate of Alva L. Stiles, deceased, praying for an order of sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts, expenses and charges of administration that have already accrued, and the debts, expenses and charges of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said Administrator to sell so much of the real estate of the said deceased, as shall be necessary for the purposes abovementioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, } WM. LOEWY, Clerk.
{ cancelled. [Seal.] }

By A. J. JEGHERS, Deputy Clerk.

THOS. B. BISHOP, Attorney. 2v12-4w

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California In the matter of the Estate of SAMUEL L. DENNISON, deceased. Order to show cause why Order of Sale of Real Estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by C. E. McNear and Patrick Scully, who are creditors of said Estate of Samuel L. Dennison, deceased, praying for an order of Sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts outstanding against said deceased, the debts expenses, and charges of administration that have already accrued, and the debts, expenses, and charges, of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said petitioners, authorizing and requiring the Administratrix of said estate to sell so much of the real estate of the said deceased, as shall be necessary for the purposes abovementioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County, and that a citation issue to Maria J. Dennison, the Administratrix of said estate, and be served upon her at least four weeks prior to the time above-mentioned for said hearing.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand, and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, } WM. LOEWY, Clerk.
{ cancelled. [Seal.] }

By A. J. JEGHERS, Deputy Clerk.

PORTER & HOLLADAY, Attorneys for Petitioners. 2v12-4w

Rates of Advertising

—IN THE—

MINING AND SCIENTIFIC PRESS.

Mining Advertisements.

Notices of Meetings, per square, one week	$1 00
Notices of Meetings, per square, four weeks	2 50
Assessment Notices, of ordinary length, four weeks	5 00
Assessment Notices, of more than usual length, for each additional square	2 50
Delinquent Sales, per square, two weeks	2 00
Delinquent Sales, per square, three weeks	2 50
Postponements, per square, one week	1 00
Slips of Advertisements, printed for meetings or assessments, per hundred	1 00
Advertising blanks and circulars	Free

Miscellaneous Advertisements.

One week, per square	$1 00
One month, per square	2 50
One quarter (3 months), per square	7 50

Advertisements of great length, or of special character, inserted by contract on the most favorable terms.

☞ *Ten lines of solid advertising type constitutes a square.* ☜

Terms of Subscription.

THE MINING AND SCIENTIFIC PRESS is published every Saturday morning (containing sixteen pages—size of *Harper's Weekly*) at the following rates:

One copy, one year, by mail, in advance	$5 00
One copy, six months, by mail, in advance	3 00
One copy, one year, by express	6 50
One copy, six months, by express	3 50
Five copies, one year, by mail, in advance	20 00
By city carriers, per month	50
Single copies	12½
Monthly Series (or parts), containing 4 Nos	60
Monthly Series, containing 5 Nos	62½

THE CIRCULATION of the PRESS, already extensive, is rapidly increasing, and substantial men who can profit by widely disseminating information of their business amongst the most intelligent, influential and industrial classes of the Pacific States and Territories will find no more effectual or economical medium for advertising.

DEWEY & CO., Proprietors.

Patent Agency and Job Printing Office, 505 Clay street, San Francisco. July 1 1865

OFFICE OF THE COUNTY CLERK OF THE CITY AND County of San Francisco, State of California.—In County Court.

In the matter of the application of LA MORRONENA SILVER MINING COMPANY, for Order of Dissolution.

Notice is hereby given, pursuant to law and an order of the Hon. SAMUEL COWLES, County Judge of said City and County, this day made, that La Morronena Silver Mining Company, a corporation duly organized and doing business in said City and County, has made application, by petition duly filed, that said Company be disincorporated and dissolved, and that said application will be heard by and before the Hon. SAMUEL COWLES, County Judge aforesaid, on the seventeenth day of February, A. D. 1866, at 10 o'clock A. M., in the Court Room of said County Court, in the City Hall Building of said City and County.

Witness my hand and the Seal of said County Court, this eighteenth day of January, 1866.

{ Seal and U. S. Rev. } WM. LOEWY, County Clerk.
{ Stamp, 50c, canceled. } By J. NAPHTALY, Dep. Co. Clerk.

3v12-4w

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Diana Gold and Silver Mining Company,

Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 21st day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Allen, H H	236	3	$ 30 00
Allen, H H	271	45½	455 00
Allman, John	304	7	70 00
Allman, John	305	6	60 00
Bradley, H W	239	11	110 00
Bateman, I C	211	4	40 00
Bateman, I C	268	120	1200 00
Bidleman, E J	308	5	50 00
Bidleman, E J	309	4⅜	43 75
Bidleman, E J	312	9	90 00
Bidleman, E J	320	15	150 00
Cutter, H F	14	21	210 00
Cutter, H F	200	5	50 00
Cutter, H F	248	10	100 00
Camp, James	143	10	100 00
Crockett, Geo W H	244	5	50 00
Drinkhouse, J A	318	25	250 00
Dawley, Jas M & Co	161	5	50 00
Dawley, Jas M & Co	162	5	50 00
Dawley, Jas M & Co	164	10	100 00
Detrick, E	255	3	30 00
Francis, D B	84	3	30 00
Francis, D B	62	10	100 00
Frazee, C B	224	20	200 00
Greene, S H	7	12	120 00
Greene, S H	269	13½	135 00
Harrington, W C	290	5	50 00
Harrington, W C	291	10	100 00
Harrington, W C	292	10	100 00
Harrington, W C	293	10	100 00
Harrington, W C	294	10	100 00
Harrington, W C	295	10	100 00
Harrington, W C	296	10	100 00
Harrington, W C	297	10	100 00
Harrington, W C	298	10	100 00
Harrington, W C	299	10	100 00
Harrington, W C	300	10	100 00
Harrington, W C	301	10	100 00
Harrington, W C	302	10	100 00
Harrington, W C	303	10	100 00
Hardy, Jas H	278	5	50 00
Hastings, John	214	10	100 00
Hastings, John	242	5	50 00
Hastings, John	245	5	50 00
Light, C H	2	6¼	62 50
Lander, P C	270	14	140 00
Ladd, C J	115	10	100 00
Miller, Albert	319	20	200 00
Neyman, H J	80	10	100 00
Neyman, H J	105	25	250 00
Melbaniel, D	61	2	20 00
O'Neil, A E	215	20	200 00
Perley, D W	180	20	200 00
Perley, D W	181	10	100 00
Perley, D W	182	10	100 00
Perley, D W	183	8¾	87 50
Perkins, A B	220	8	80 00
Pridham, Wm	223	5	50 00
Sharp, Geo F	52	4	40 00
Turner, Anna K	35	2	20 00
Warren, O P	251	22	220 00
Williams, J J	142	2	20 00
Welch, G W	206	10	100 00

And in accordance with law and an order of the Board of Trustees, made on the 21st day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, by Jones & Bendixen, on the 5th day of February, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. jan20

Kentucky Copper Mining Company—Location: Mine. Felix District, north of Copperopolis, Calaveras County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment No. 7, levied on the 20th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Daryes, R	47	10	$10 00
Gallagher, Th	188	75	75 00
Lachmann, S	235	25	25 00
Lachmann, S	247	25	25 00
McCarter & Oxteby	116	25	25 00
Schuhmacher, R	271	10	10 00
Steiale, E	267	10	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 20th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Cobb & Sinton, at No. 406 Montgomery street, San Francisco, Cal., on Wednesday, the 7th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. A. BAUER, Secretary.

Office, 644 Washington street, San Francisco, Cal. j20

Hornet Gold and Silver Mining Company,

Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 21st day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Addleberger, C F	8	10	$10 00
Addleberger, C F	9	10	10 00
Addleberger, C F	10	10	10 00
Addleberger, C F	14	5	5 00
Austin, B C	93	5	5 00
Baker, Fred	30	10	10 00
Baker, Fred	32	10	10 00
Baker, Frod	35	5	5 00
Baker, Fred	36	5	5 00
Baker, Fred	37	5	5 00
Casen, J D	76	10	10 00
Casen, J D	77	12½	12 50
Coddington, Geo W	86	20	20 00
Compbell, M	89	5	5 00
Campbell, M	90	5	5 00
Cutter, H F	100	96	96 00
Korley, J C	38	20	20 00
Kerley, J C	39	20	20 00
Kerley, J C	43	5	5 00
Massey, J M	56	12½	12 50
Masscy, J M	57	20	20 00
Parker, Edwin	68	10	10 00
Todd, Jos	2	10	10 00
Todd, Jos	3	10	10 00
Todd, Jos	4	10	10 00
Tureman, C W	78	20	20 00
Tureman, C W	79	10	10 00
Tureman, C W	80	10	10 00
Ramsey, L W	75	10	10 00
Weltou, E W	49	10	10 00
Weltoa, E W	50	10	10 00
Welton, E W	51	10	10 00

And in accordance with law and an order of the Board of Trustees, made on the 21st day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the Company, by Jones & Beadixen, on the 6th day of February, 1866, at the hour of 1 o'clock P. M. of said day, to pay said deliaquent assessmeat thereon, together with costs of advertising and expeases of sale.

N. C. FASSETT, Secretary,

Office, 402 Front street, San Francisco, Cal. jan20

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 8th day of January, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 9th day of Jaauary, 1866, in United States gold and silver coin, to the Secretary, or to the Superintendent at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 3d day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretary.

Office, corner Broadway and Sansome streets, San Francisco. jan20

Yankee Blade Mining Company---Location of Works: Reese River Mining District, State of Nevada.

NOTICE.—There are delinquent upoa the following described stock, oo account of assessment levied on the 5th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Baldwin Gardner, jr	102	6	$ 90 00
Henry Sylvester	103	10	150 00
Mrs Louisa Baxter	154	4	60 00
J A Jackson	unissued	7	105 00
A Eberhardt	285	5	75 00
United Reese River S M Co	221	50	750 00
W Wadsworth	242	10	150 00

And in accordance with law, and an order of the Board of Trustees, made on the 6th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at 329 Montgomery street, San Francisco, Cal., being the office of the Company, on Monday, the 29th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale,

WM. T. ATWOOD, Secretary.

Office, No. 329 Montgomery street (Stevenson House), San Francisco. jan20

POSTPONEMENTS.—We would again call the attention of Secretaries to a certain point of the mining law, too commonly overlooked, viz: The requirement that all postponements must be added previous to the expiration of the regular publication of assessment or sale notices.

Yosemite Silver Mining Company, Oro Fino District, Humboldt County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 21st day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Atwater, H H	90	5	$ 6 25
Robinson, Geo	134	00	75 00
Hutchins, Fred	136	20	25 00
Wade, W N	141	10	12 50
Wade, W N	142	220	275 00
Wade, W N	146	25	31 25

And in accordance with law, and an order of the Board of Trustees, made on the 21st day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Jones & Bendixen, at 402 Front street, on the 6th day of February, 1866, at the hour of 1½ o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

S. O. PUTNAM, Secretary.

Office, 402 Front street, San Francisco. jan20

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Animas Silver Mining Company---Location of Mines: Ventanas, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 30th day of December, 1865, an assessment of forty (40) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, pro tem., THOMAS HILL, at his office, No. 622 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expeases of sale. By order of the Board of Trustees.

THOMAS HILL, Secretary Pro tem.

Office, 622 Montgomery street, San Francisco, Cal. dc30

Agawam Gold and Silver Mining Company, Ualon District, Nye County, Nevada.

NOTICE.—There are delinquent upoa the followlag described stock, ou account of assessmeut levied on the 12th day of December, 1865, the several amouats set opposite the aames of the respectivo shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
C O Altman	10	8	$ 8 00
C C Hays	11	7	7 00
E G Lamh	23	5	5 00
John W Stonner	35	5	5 00
Mills & Evans	38	50	50 00
Mills & Evans	40	10	10 00
Mills & Evans	42	5	5 00
Jerome Leland	59	10	10 00
Frank Barker	60	5	5 00
Geo F Stevens	66	5	5 00
A M Comstock	82	60	60 00
A M Comstock	13	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 12th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 525 Montgomery street, San Francisco, Cal., on the 27th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expeases of sale.

C. M. BURNHAM, Secretary.

Office, 436 Jackson street. jan13

POSTPONEMENT.—The above sale is hereby postpoaed until February 5th, 1865, at the same hour aad place. By order of the Board of Trustees.

jan20 G. M. BURNHAM, Secretary.

Blue Ledge Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 2d day of January, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless paymeut shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. jan6

Bunker Hill Quartz Mining Company, Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 27th day of November, 1865, the several amouats set opposite the aames of the respective shareholdors, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Samuel Carr	50	10	$ 50 00
Samuel Carr	61	23⅓	116 66⅔

And in accordance with law, and an order of the Board of Trustees, made on the 27th day of November, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by John Middleton & Son, San Francisco, on the 20th day of January, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WALES L. PALMER, Secretary.

Office, 19 First street, San Francisco. jan6

OUR NEW YORK AGENCY.

Mr. GEO. M NEWTON is our authorized agent in New York City, and will receive advertisements and subscriptions for the MINING AND SCIENTIFIC PRESS at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "STOCKHOLDER," **No. 72 William street.**

Blue Ledge Gold and Silver Quartz Mining Company, Kelsey Mining District, El Dorado County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 12th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm H Alley	bal 2003	2	$ 3 00
Wm H Alley	bal 2005	2	3 00
L H Allen	2668	10	15 00
L A Bly	1023	5	7 50
Judah Baker, jr	872	10	15 00
Judah Baker, jr	2674	5	7 50
R G Byxbee	842	10	15 00
R G Byxbee	843	10	15 00
J T Boyd	872	10	15 00
Warner Buck	2625	10	15 00
T L Barker	3043	50	75 00
T L Barker	3044	50	75 00
J C Collins	1688	20	30 00
J C Collins	1700	10	15 00
A E Crane	1720	10	15 00
Hugh Crockard	3032	10	15 00
Hugh Crockard	3034	10	15 00
E M Derby	2731	20	30 00
E M Derby	2732	10	15 00
E M Derby	2733	10	15 00
E M Derby	2734	20	30 00
E M Derby	2735	20	30 00
Edw Duckett	1600	10	15 00
W C Flint	3111	10	15 00
John J Foy	bal 2468	5	7 50
D L Fouts	bal 1131	5	7 50
Henry I Frey	1394	6	9 00
H M Fortune	3006	20	30 00
W N G Gardner	1538	5	7 50
Jos Godchaux	3053	50	75 00
Wm J Gina	3127	10	15 00
Isaiah Harris	1703	4	6 00
J V Hollinshead	bal 1057	5	7 50
Daniel Hinckley	bal 2158	5	7 50
John W Hunter	bal 1960	4	0 00
Elisha Higgins	871	5	7 50
Elisha Higgins	2000	5	7 50
De Witt Hulse	bal 998	5	7 50
De Witt Hulse	bal 1571	5	7 50
D Witt Hulse	bal 1061	2	3 00
Elander Heath	1572	10	15 00
Elander Heath	1818	10	15 00
W B Holcombe	3117	50	75 00
Edw Jellings	573	2	3 00
H Killiam	1532	10	15 00
John W Loker	1520	15	22 50
I Livingston	1078	50	75 00
I Livingston	1748	5	7 50
I Livingston	1812	10	15 00
I Livingston	1816	10	15 00
I Livingston	3056	25	37 50
I Livingston	3106	70	105 00
I Livingston	3109	30	45 00
Robert Mills	1687	10	15 00
Margaret J McLeod	1404	1	1 50
John Martenstein	1492	25	37 50
John Martenstein	bal 1482	2½	3 75
F A Munroe	1954	20	30 00
F A Munroe	bal 1912	26	30 00
F A Munroe	bal 1920	26	39 00
E S Morrison	3114	50	75 00
John McMahon	3119	70	105 00
Jas Nelson	1552	30	45 00
Jas Nelson	1648	10	15 00
Jas Nelson	1650	20	30 00
Jas Nelson	1652	20	30 00
Mateo Redulla	2340	2½	3 75
Wm Rico	bal 2911	2½	3 75
Wm Rice	bal 2915	5	7 50
A Rosenfeld	3062	5	7 50
Chas Smith	bal 2018	7	10 50
Chas Smith	bal 2175	7	10 50
Ann T Swain	1082	30	45 00
Ann T Swain	3101	5	7 50
Geo E Sherwood	2667	10	15 00
J F Storer	3113	70	105 00
J F Storer	3120	30	45 00
O B Shaw	1003	2	3 00
Oliver Taylor	1756	5	7 50
Oliver Taylor	3132	10	15 00
T F Tracy	bal 1584	5	7 50
Lewis Tecse	748	5	7 50
H A Winter	218	5	7 50
Chas L Wiggin	2259	5	7 50
C L Wilson	2427	5	7 50
S H Wetherbee	bal 1309	5	7 50
Abram Warner	2666	10	15 00
Robt Wilson	bal 1478	11	16 50

And in accordance with law, and an order of the Board of Trustees, made on the 12th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold by Messrs. Olney & Co., at No. 526 Montgomery street, San Francisco, Cal., on the 27th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. jan13

Consolidated Silver Hill Mining Company.—Location of Works: Esmeralda District, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of January, A. D. 1866, an assessment of two dollars ($2) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, Room No. 15 Government House, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 10th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 21st day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

jan13 JOHN J. MACKENZIE, Secretary.

Great Western Tunnel and Mining Company, Aurora, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of December, 1865, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

JOS. C. FORD, Secretary.

Office, No. 21 Exchange Building, corner Washington and Montgomery streets, San Francisco. dec30

ELECTROTYPE CUTS, ENGRAVINGS, ETC.—Our Job Printing Office is abundantly supplied with elegant engravings, ornaments, and other embellishments to suit the various branches of industry in this State.

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal. Assessment No. 9.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 26th day of December, 1865, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 13th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. de30

Honest Miner Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Bertody, Chas	147	10	$ 5 00
Brooks, G W, Trustee	214	5	2 50
Cutter, H F	268	70	35 00
Cutter, H F	284	3	1 50
Cutter, H F	303	38	10 00
Cutter, H F	318	7	3 50
Chevers, W H	311	2	1 00
Frank, J	312	4½	2 25
Greene, S H	40	7	3 50
Howard, H O	209	10	5 00
Lander, P C	42	0	3 00
Lyle, T B	133	1	3 50
Reed, J L	313	4	2 00
Tilton, S S	183	10	5 00
Uptou, M	314	1	50
Whitlatch, J W	64	5	2 50
Whitlatch, J W	67	5	2 50
Whitlatch, J W	68	10	5 00
Whitlatch, J W	69	10	5 00
Whitlatch, J W	109	5	2 50
Whitlatch, J W	242	10	5 00
Wendell, Medora	222	1	50

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Bendixen, auctioneers, on the 29th day of January, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C FASSETT, Secretary.

Office, 402 Front street, San Francisco. jan13

Jewett Gold and Silver Mining Company, Gold Hill District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
George E Willett	3	20	$20 00
A M Comstock	10	80	80 00
George E Willett	81	20	20 00
Wm H Bovee	82	40	40 00
James G Cooper	84	5	5 00
S E Harris	88	20	20 00
S R Harris	89	20	20 00
Wm H Bovee	102	60	60 00
J Fuller	108	38	38 00
Thomas Thwaites	117	8	8 00
E M Van Reed	127	20	20 00
Jacob Hardy	139	20	20 00
James G Cooper	143	19	19 00
C M Burnham	145	10	10 00
J M Lord	140	30	30 00
Wm H Bovee	151	10	16 00
James Wright	152	40	40 00
James Wright	153	40	40 00
James Wright	154	20	20 00
C E McNear	156	4	4 00
C E McNear	157	8	8 00
Edwin Tyler	158	51½	51 50
A E McNear	not issued	70	70 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of December, 1865, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the salesroom of Maurice Dore & Co., No. 327 Montgomery street, San Francisco, Cal., on the 20th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

jan6 G. M. BURNHAM, Sec'y pro tem.

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 7th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm Fido	unissued	7	$ 3 50
John G McCanlay	unissued	12	0 00
C Larson	unissued	70½	35 25
Andrew Willett	42, 43	9	4 50
C S Peak	47	7½	3 75
Wm Mercer 57, 58, 59, 60, 61, 63 64, 65		70	35 00
Phillip Weihe	142	5	2 50
John F Davis	148, 161	11	5 50
John Sanquett	170	10	5 00
George Day	171	5	2 50
A H Powers	174	10	5 00
W N Lee	200	5	2 50
H J Tilden	212	5	2 50
Mrs P J Conch	216	5	2 50
Frank Rahel	218	2	1 00
E J Bacon	231	10	5 00
Frank Beitchman	235	5	2 50
James Wilson	236	5	2 50
Sarah M Davis	240	15	7 50
Daniel Davidson	244	5	2 50

And in accordance with law, and an order of the Board of Trustees, made on the 7th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at the office of the Company, No. 305 Montgomery street, San Francisco, Cal., on the 26th day of January 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. S. LUTY, Secretary.

Office, 305 Montgomery street, San Francisco. jan6

Joe Lane Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described Stock, on account of Assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Ayres, W O	152	8	$ 4 00
Aud, B A	159	29 11-16	14 83
Bradley, H W	8	5	2 50
Baker, Fred	105	10	5 00
Baker, Fred	106	10	5 00
Baker, Fred	107	10	5 00
Cutter, H F	142	5	2 50
Cutter, H F	158	81	40 50
Carroll, F P	119	90	45 00
Carroll, F P	131	20 13-10	10 40
Greene, S H	7	8	4 00
Heath, R W	151	34	17 00
Harrington, W C	153	2	1 00
Perley, D W	86	50	25 00
Stateler, J W	154	8	4 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Bendixen, auctioneers, on the 29th day of January, 1866, at the hour of 1¼ o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. jan13

Nevada Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bradley, H W	71	15	$22 50
Brown, E J	106	15	22 50
Cutter, H F	95	2 1-6	3 25
Cutter, H F	99	30	45 00
Cutter, H F	116	0	9 00
Chevers, W H	19	15	22 50
Dinklespiel, L	107	7	10 50
Francis, D B	108	5½	8 25
Greene, Samuel H	70	19	28 50
Heath, R W	10	22	33 00
Knox, J W	113	13	19 50
Lander, P C	65	15	22 50
Lander, Amos C	97	20	30 00
Mills, H A	109	4	6 00
McDaniel, D	6	7½	11 25
Murphy, David	110	14⅔	22 00
Upton, M	111	8	12 00
Waterman, T A	33	25	37 50
Waterman, T A	34	25	37 50
Waterman, T A	35	20	30 00
Waterman, T A	36	10	15 00
Waterman, T A	37	5	7 50
Waterman, T A	38	5	7 50
Waterman, T A	39	5	7 50
Waterman, T A	40	6⅔	10 00
Williams, J J	69	7½	11 25

And in accordance with law and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Bendixen, Auctioneers, on the 29th day of January, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. jan13

Owen's River Canal Company, Tulare County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of January, 1866, an assessment of forty (40) cents per share was levied upon the assessable stock of said Company, payable on the 8th day of January, 1866, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

F. L. BIBBINS, Secretary.

Office, 618 Merchant street, San Francisco, Cal. jan6

Paragon Petroleum Company.—Location of Works: Mattole District, Humboldt County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
J W J Pierson	33	25	$6 25
J W J Pierson	34	25	6 25
J F Pinkham	24	20	5 00
J F Pinkham	25	20	5 00
J F Pinkham	26	20	5 00
J F Pinkham	27	20	5 00
J F Pinkham	28	20	5 00
A H Bewley	aggregate	23	10	0 00
R G Brown		29	50	12 50
R G Brown		30	50	12 50
R G Brown		31	50	12 50
R G Brown		32	50	12 50
R C Alden		35	100	25 00
R C Alden		36	100	25 00
R C Alden		37	100	25 00
J H Earle	aggregate	38	5	4 25
J H Earle	aggregate	39	5	4 25
J H Earle	aggregate	40	5	4 25
J H Earle	aggregate	41	5	4 25
J H Earle	aggregate	42	5	4 25
J H Earle	aggregate	43	5	4 25
J H Earle	aggregate	44	5	4 25
J H Earle	aggregate	45	5	4 25
J H Earle	aggregate	46	5	4 25
J H Earle	aggregate	47	5	4 25
F E Moore	aggregate	61	10	7 00
E D Waters, Jr		53	50	12 50
A T Dewoy	aggregate	65	70	40 00
W B Ewer		66	100	25 00
W B Ewer	aggregate	67	70	40 00
J F Crossett		77	100	25 00
J J Mills	aggregate	80	10	6 50
A Riker		81	50	12 50
W B Lake	aggregate	85	50	29 00
J P Cogswell		88	50	12 50
Samuel S Field		100	120	30 00
Samuel S Field		101	120	30 00
J V P Mathias		103	20	5 00
J V P Mathias		104	20	5 00
J V P Mathias		105	20	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co, at No. 626 Montgomery street, San Francisco, Cal., on the 26th day of January, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

M. J. McMANUS, Secretary.

Office, No. 206 Jackson street, San Francisco. jan6

Siempre Viva Silver Mining Company, Zarugora District, Sinaloa, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 2d day of December, 1865 the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bayerque, J B	10	100	$250 00
Canavan, P H	230	1	2 50
Canavan, P H	240	10	25 00
Fischer, Chas	148	2	5 00
Garnett, L A	110	25	62 50
Garnett, L A	111	25	62 50
Garnett, L A	112	16	40 00
Garnett, L A	113	10	25 00
Larco, N	160	10	25 00
Mei, H	201	2	5 00
Chay Wo Sac	184	5	12 50
Ah Yo	222	5	12 50
King Yan	234	5	12 50
Wong Tyn Heu	229	5	12 50
Cut Chong	230	5	12 50
Lo Park	231	5	12 50
Ah Stut	232	7	17 50
Pou Jih	233	3	7 50
Chong Tung	235	20	50 00
	ALSO,		

For account of assessment levied 28th July, 1865, advertised as delinquent 29th August, 1865, and offered at auction 0th September, 1865, but no bidder—

Fischer, Chas	148	2	$ 5 00
Garnett, L A	110	25	62 50
Garnett, L A	111	25	62 50
Garnett, L A	112	10	40 00
Garnett, L A	113	10	25 00
Chay Wo Sac	184	5	12 50
Chong Tung	235	20	50 00

And in accordance with law, and an order of the Board of Trustees, made on the 24 day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of John Middleton & Son, on the 20th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

jan6 JOHN F. LOHSE, Secretary.

Salamander Gold and Silver Mining Company, Mill Valley District, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of December, 1865, an assessment of twenty (20) cents per share was levied upon each and every share of the capital stock of said company, payable on Friday, the 29th day of December, 1865, in United States gold or silver coin, to the Secretary, 12t Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

F. D. GALLAGHER, Secretary.

Office, No. 35 Metropolitan Block, San Francisco, California. dec30

Wide West Gold and Silver Mining Company. Location: Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of January, 1866, an assessment of three ($3) dollars per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 330 Davis street, San Francisco, or to F. L. JACKSON, Superintendent, at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 21st day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOSEPH GREEN, Secretary.

Office, 330 Davis street, corner of Washington street, San Francisco. jan6-4w

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of January, 1866, an assessment of three dollars ($3) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 210 Pine street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 17th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up stairs, San Francisco.

N. B.—The above assessment is for the payment of balance due on machinery, and its erection at the mine. ja6

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. THE MINING AND SCIENTIFIC PRESS PATENT AGENCY has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

Calendars for 1866.—THE MINING AND SCIENTIFIC PRESS JOB PRINTING OFFICE is prepared to execute every manner of Counting-house Calendars and advertisements for various business men, on short notice and moderate terms.

Constitution and By-Laws
—OF—
Mining and Prospecting Companies
Elegantly printed, with care and dispatch, at the office of the **Mining and Scientific Press.**
☞ Orders from the interior faithfully attended to.

English Idea of Our Armies.—Except the squadrons which charged at Worcester and Naseby, no army was ever sent in the field liks that of Sherman's. Many of the rank and file were gentlemen — poets, writers, advocates, preachers, bankers, laudlords; such men as would mix in London society and he members of Pall Mall cluhs. Many of the cavalry rods their own mares; many of the infantry bought their own arms. Many were persons of estate, accustomed to good houses and good living. They had friends in high places and luxurious homes awaiting their return. Some of ths best regiments of Massachusetts and of the Western States were in the camp. And they wsre strong in number as in spirits; 70,000 fighting men of the hest hlood in America, counted after all the non-effective had heen left hehind. Whers were they going to? One thing was clear, they were going to defy all military rules, and at ths risk of their lives, enlargs the art of war.

By Mail.—The Mining and Scientific Press will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

Removal.

The Office of the Mining and Scientific Press has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our forme location), where we may now be found, with more commodious apartments and an extensive Joa Printing Office.

San Francisco, April 10th, 1865.

Economy in Advertising.—The Mining and Scientific Press is the best and most economical mining advertising medium in this city. Our terms are less than one half the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The Press contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Deserved Testimonial..

Grizzly Flat, Oct. 18, 1865.

Messrs. Hunderforn & Henry—*Gentlemen:* We have run your Concentrator for several days past, in our 5-stamp Mill, and, as far as can be ascertained at present, it is a perfect success. When running at the rate of from two hundred and ten to two hundred and twenty-five revolutions per minute, we have lost neither quicksilver nor sulphurets. Formerly, when using copperplate riffles and blankets, we found that in spite of the utmost precaution, quicksilver would escape over them all. Wishing you all success, we remain Your obedient servants,

E. A. BIGLER.
S. F. DAVIS.

17v1Iqy

MINERS

Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.

Gold, Silver and Copper Ores bought in any quantity.

Assay of Ores made by a new Fire Process in half the usual time, an at half price.

Apply to **J. MOSHEIMER,**
23v1Iqy 423 Washington street, San Francisco.

QUARTZ OPERATOR'S HAND BOOK.

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,
Authors and Publishers.
Bound in Cloth—144 Pages, Duodecimo.

The Quartz Operator's Hand Book is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

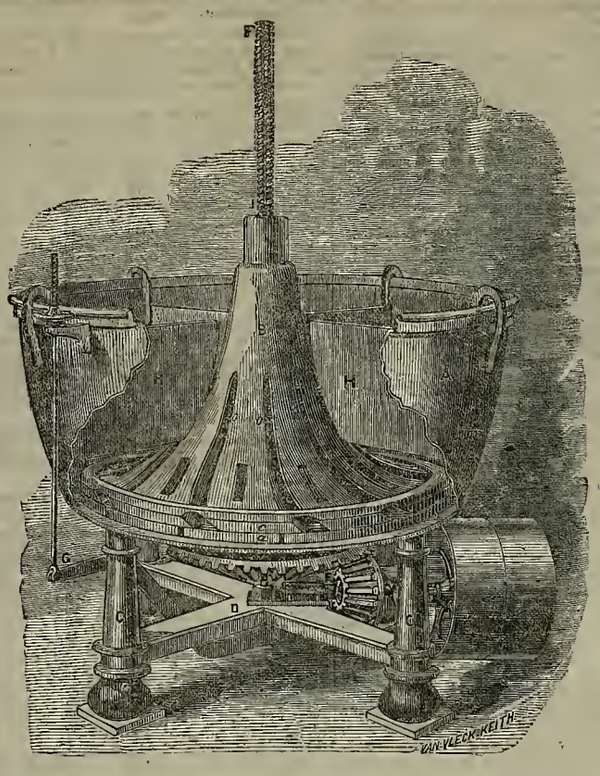
The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable Quartz Miner's Hand Book.

[ac Table of Contents of this book will he found on pa 415 of the Mining and Scientific Press of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v1I



THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and o, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it he.

Another property of excellence in this machine is that the metal or substance to he amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been hurnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works.

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.

San Francisco, June 13, 1865.

LICK HOUSE,

Corner of Montgomery and Sutter streets, SAN FRANCISCO.

S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests.

15v1I

CALIFORNIA CLOTH,
CLOTHING MADE FROM,
For Wholesale and Retail Trade,
ALSO, CLOTHING MADE TO ORDER,
AT QUINCY HALL,
Nos. 545, 547 and 549 Washington Street,
SAN FRANCISCO, CAL.

19v1I-3m

VALUABLE PATENT RIGHT FOR SALE.

The patent right for the United States of a valuable invention can be secured at a bargain by applying at this office. The article is one of general application throughout civilization.

DEWEY & CO., Publishers.

RUGGLES' PRINTING PRESS

For Sale or Exchange.

The Proprietors of the Mining and Scientific Press have on hand a Half-Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,
Office, 505 Clay street.

THE STYLE

—FOR—

Fall and Winter, 1865,

Will be Introduced Aug. 26, at

MEUSSDORFFER'S

HAT MANUFACTORIES,

Nos. 635 & 637 Commercial st., San Francisco,

No. 125 J st., bet. Fourth & Fifth, Sacramento.

Corner D and Second Streets, Marysville. 12v1I

WE ARE NOW OFFERING

OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LOW PRICES.

J. R. MEAD & CO.,
8v10 Cor. of Washington and Sansome streets.

SAN FRANCISCO CORDAGE MANUFACTORY.

CONSTANTLY ON HAND,

A Large and Complete Assortment

—OF—

MANILA CORDAGE,

FOR MINING PURPOSES.

—ALSO—

WHALE LINE, BALE ROPE, ETC.,

Manufactured from Pure Manila Hemp.

Hoisting Ropes for Deep Shafts,

—ALSO—

Lines for Ferry Boats,

Manufactured to Order.

Office at **TUBBS & CO.'S,**
[Nos. 611 and 613 Front street.
Manufactory at the Potre 14v10

JOHN TAYLOR & CO.,

—IMPORTERS AND DEALERS OF—

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco, March 6, 1865. 11v10-tf

CHARLES BERNARD,

MANUFACTURER AND DEALER IN

Family Chartres Coffee,

AND SPICES OF ALL KINDS,

No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.

First Premium Awarded

BY THE MECHANICS' INSTITUTE,

FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to.

15v1I-3m

OIL WELL BORING.

J. SEVENOAKS,
Contractor

For Well Boring and Erecting all kinds of Machinery connected therewith.

Having had extensive experience in boring for oil in Pennsylvania, Canada and elsewhere, I feel confident of being able to give entire satisfaction. Persons desirous of making contracts as above, or wishing information with regard to oil indications, etc., will please address me at the office of the "Mining and Scientific Press," San Francisco, or to my personal address, Box 129 San Francisco. 2v1I

MINING PROPERTIES.

Parties wishing Mining Properties can be accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble.

1v12

Engraved to Order.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st

SOMETHING ABOUT WINE.—The "Champagne trials" in San Francisco have brought out the facts that the entire product of genuine wine exceeds twelve trillions of bottles per annum, of which more than three trillions are sent to the United States. The amount shipped to California is reported by the ugent of the Treasury Departmeat in France to be much greater than that sent to any other locality, consideriag the population of the State and the country tributary to it; and it appears that the undervaluation of the article was so great in 1863 that in that year the Government was defranded of more than half a million of dollars of duty.

MAN is continually saying to woman, Why will you not be more wise? Woman is continually saying to man, Why will you not be more loving? It is not in their wills to be wise or to be loving; but unless each is both wise and loving, there can be neither wisdom nor love.

ERROR.—The Californiu *Christian Advocate* says that General Grant belongs to California. This is a great error. He belongs to the Union.

AT the Winchester (Eng.) Sessions, four men were indicted for steuling beans. A gentleman present asked another. "What have they been doing?" "Been stealing," was the reply.

IT is easy to say, "Know thyself," but who is to introduce you? Most people go through life without making the advantageous acquaintauce in question.

THE French savans say, to obtain sufficient nourishment from oysters Blone a man must eat sixteen dozen per day.

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, MR. TURNER HAMILTON, at the Assembly Building, 106 South Tenth street, Philadelphia, Pa., where sump copies of our publications can always be found.

Traveling Agent.

MR. ROBERT LATTIMORE is now on a canvassing tour for the PRESS through Butte, Colusi, Tehama, Shasta, and Siskiyou counties, and we recommend him to the favorable consideration of our friends.

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1864, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Just and True Economy

The Proprietors of the MINING AND SCIENTIFIC PRESS would call the especial attention of MINING SECRETARIES, TRUSTEE and SHAREHOLDES, to a few substantial reasons for the publication of Mining Notices in their journal—the first and only important newspaper of its class published upon this coast.

1st The PRESS enjoys a large and permanent subscription list, having a more universal circulation among shareholders and men intimately connected with mining interests than any other publication.

2d. Under the present law the publication of all mining notices on Saturday, in a weekly journal, complies as fully with the statutes as a daily publication. It is generally found to be equally as convenient for secretaries, and decidedly preferable to stockholders who have not time to examine throughout every issue of a daily.

3d. Economy in mining should always be looked upon with favor, and the cost for weekly advertising in the PRESS is less by ONE HALF than the rates of any other journal in this city possessing a respectable circulation.

4th. The publishers of the PRESS, making the mining interest their especial care, take particular pains to assist in the avoidance of errors in advertising. Our print is also more clear and correct than can be expected in such papers as are hurriedly issued from cylinder presses.

5th. Our "Shareholders' Directory" forms a complete index of all mining notices published in San Francisco, by reference to which shareholders can at once see if their company is advertised, and determine whether the same is inserted in the PRESS or some other paper.

6th. Many copies of the PRESS are bound by prominent professional men, mechanics, secretaries, brokers, shareholders and others, as an important record for future reference, thereby rendering advertising, of every class, in its columns, of peculiar and permanent value.

7th. The benefit of having all mining notices consolidated in one newspaper, for the common convenience of shareholders, secretaries, and others who have occasion to refer to the same, is obvious. With this view we have established our rates at only fair, living prices, believing that a journal like ours, untrammeled by party, creed, or prejudice, is the only medium which can reasonably ask for such a consolidation of mining patronage.

8th. Advertisements in the columns of the PRESS, after their first insertion, are arranged alphabetically. Our present list is equalled only in one instance by that of any other journal. Shareholders, as well as strangers, naturally turn their attention to a mining journal for information concerning the mines and mining matters.

LAST, BUT NOT LEAST.—Our sheet (having been recently enlarged to the size of Harpers' Weekly) is now only equalled in its dimensions by one mining paper in existence—the *London Mining Journal*. Published in this, the greatest mining field of the world, we desire that the PRESS shall have no superior. We can only realize our cherished object of building up a reliable advocate of the science and business of mining, which will be of just honor and profit to our community, by experience and liberal patronage. The bestowal of such favors only as naturally belong to us, and which it is clearly for the benefit of the mining fraternity to extend, is all that is requisite, and we are confident we shall receive it

DEWEY & CO.,
4v11 Office Mining and Scientific Press.

Machinery.

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,
Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; no trace of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

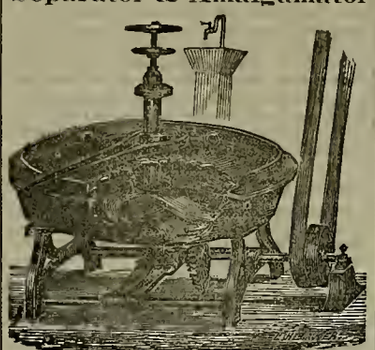
5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD S
Separator & Amalgamator



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Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

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Is now extensively used for breaking hard masses of
Quartz or Ores
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4v10

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☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th, (Illustrated in the Mining and Scientific Press, April 9th, 864.) HEPBURN & PETERSON.
nov8 3m*

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The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates then draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

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THE OIL INTEREST.

Ths severity of the weather has caused the stoppage of work, for ths present, on many of the oil wells in Humholdt county. We hear of no new developments or oil shipments from that quarter for the past few weeks.

The Adams well company, the pioneer enterprise at Mount Diablo, after finding promising indications in former horings, which were attempted without proper tuhing, and were consequently obstructed hy caving, which rendered them useless, heing now providcd with the hest horing instruments, steam engine and other facilities, have contracted with responsihls parties to sink a new well to a depth of 600 feet, unless a satisfactory snpply of oil is found in less distancs. The Contra Costa *Gazette* says that in sinking this new well, and at less than a hundred feet, the drills struck a cavity yielding oil in such quantity that it promises to warrant pumping before sinking further. But it is douhtful if the trustees will consent to any delay iu the work, unless satisfied of having a considerahls supply of oil to pump on.

The first shipment of oil from the Santa Cruz petroleum works, the pioneer enterprise in Santa Cruz county, was made a short time since, and consisted of 700 gallons, which ths Santa Cruz *Sentinel* says was a fins article, equal to the hest hurning and luhricating oils of Eastern manufacture. Ths supply of illuminating and luhricating oils, as also a first rate article of coal tar, will now bs constant and of considerahle importance. Some twenty rstorts, and a large distillery for refining the oils will he running night and day, turning out a large quantity, ready for market. The same paper learns that several parties are negotiating to erect retorts and refineries, at different places on ths San Gregoria ranch, and other points on the coast in ths vicinity of Pescadero.

From the Lsxington well, in Santa Clara county, we also hear favorable reports. A gentleman informs the San Jose *Courier* that 250 gallons of oil were recently pumped from this well at one timc. Mr. McClaren, the contractor, has heen at great expense during the past year, and has sunk the well 450 feet. He labored under serious difficulties at times, all which his energy and perssverance have overcoms. The company is now proceeding to sink a still greater depth—the supervision of the work heing in chargs of Mr. McClaren. It is estimated that from 500 to 800 harrels of oil per month might he obtained from the springs and wells now open in the State, were horing operations to ceass where they now are, and attention confined to collecting the oil which is now obtainable. At least 1,200 harrels have already been received in this city, and there is prohably half as much more now at ths various springs and wells ready for transportation. Although as yet no flowing wells havs heen struck, the prospects are amply sufficient to warrant ths assumption that at least a moderats yield of oil will he obtained in nearly every neighhorhood where any very extensive works have heen undertaken. Few, if any, of the wells have yet reached a depth nt which any very sxtensive yield of oil could he reasonahly he expected. Borings, however, are still going on, and the utmost confidence is felt in ultimate success. The recent establishment of refineries in this city, which secures a ready market for the crude oil, has given additional confidence to the oil seekers. Ahout seventy companies have heen organized in this State, and some sixty wells are now in progress, varying from the mere commencement to 450 feet in depth.

A National Mining Bureau.—Senator Stewart, of Nevada, has introduced into the Senate a hill providing for the formation of a Mining Bureau, at the hsad of which is to he a Commissioner of Mining. The hill is drawn upon the same plan as that providing for an Agricultural Bureau, passed a few years since. Considering the growing importance of the mining interests of this country, and the vast mineral resources of the United States, such a Department is hecoming a necessity.

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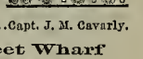

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THE ADAMS OIL WELL.

We have already stated that the proprietors of the Adams well, near Mount Diablo, had been obliged to abandon their first well and had commenced operations on a second one, some seventy-five feet lower down the ravine than the first. We now learn that after reaching a depth of nearly 100 feet, a good show of oil was found accompanying the water that flowed from the well. After reaching a depth a little over 100 feet, they struck another oil strata which materially increased the show of oil at the outflow of the well. At the depth of 125 feet they encountered some very hard rock, at which they worked for several days, gaining but a few inches in depth during that time, when the augur suddenly dropped into a cavity, from which considerable increase in oil made its appearance. A pump was immediately put in, and after pumping two days they had saved five barrels of oil, and estimated that they had lost nearly as much more, from imperfect arrangements for saving.

The strata here stands at a very high angle, so much so that in starting the well, only about sixty-five feet from the one first sunk, they had to go down about 125 feet before striking the top of the strata in which the first well was commenced; so that all the oil thus far encountered in the present well lies, geologically, above that obtained in the first well. It is now the purpose to go down fifty-five feet further, which will take them to the first oil strata struck in the original well, and which was shut off by their tubing. At this point they propose to again put in their pumps. The present well is in firm rock, and does not require tubing, so that when they again commence pumping, they will have at least these strata of oil-yielding rock in the well. The proprietors are now more than ever confident of developing a profitable well. The oil from this locality is probably the most valuable which has ever been obtained from any well in California, or any where else.

The progress of Southern trade, since the suppression of the rebellion, attracts attention. In cotton, some 1,100,000 bales have been delivered at Northern or Western ports and towns, and at the estimated value of $100,000,000. Most of this has been paid for in money, which is at this time being applied to the development of the industry of the South.

The venerable President Nott, of Union College, is failing very fast, and can scarcely survive but a few days.

Communications.—We have received an excellent list of communications which will receive attention next week.

A NEW CEMENT MILL AT FRENCH CORRAL.

We have been put in possession of a particular description of a new cement crushing-mill, which was started about the 1st of January last, on the claims of the Empire Tunnel company, at French Corral, in Nevada county. This mill has been constructed to work what is known as the "blue cement," a kind of gravel which cannot be washed by any of the ordinary means of sluice washing. The mill consists of a 10-stamp battery and hoisting works, driven by water power; the battery being driven by one wheel, and the hoisting works by another. The wheels are each one of McAuley's improved, tangented turbines, more familiarly known among miners under the name of Iron Hurdy-Gurdy Wheels. They are driven by water taken from a common hydraulic hose-pipe, having a head or pressure of 122 feet.

The wheel on the hoisting drums is four feet in diameter, and is attached to the same shaft that carries the hoisting reel, thereby avoiding all gearing, belting, or other intervening machinery, which produces a large amount of friction, when arranged after the ordinary manner of construction.

The wheel that drives the stamps is eight feet in diameter, and is hung directly upon the cam-shaft, avoiding all intervening friction, the same as in the hoisting gear.

The speed of the battery is regulated by means of a throttle-valve, attached to the water pipe, so that the stamps can be made to drop as rapidly or slowly as may be required. The stamps weigh 800 pounds each, and work in high mortars—five stamps in each mortar—and are set to drop twelve inches. The speed at which they are usually driven is 85 drops for each stamp per minute, or 850 for the entire battery. The wheel is capable of giving a much increased velocity, as was shown, while testing the machinery, previous to its delivery to the company.

The mortars employed entirely inclose the stamp heads, and are provided with a double discharge, having screws on both sides. The amalgamating-room is under the feed floor.

The mortars are provided with copper plates for amalgamating in the battery, and also with large copper plates in front of the screens.

The mill was built on contract, and delivered in complete mining order by the Miners' Foundry of San Francisco. It was designed, built, and put in operation under the personal superintendence of Mr. Thomas McAuley; the millwright work being done by Mr. Frenden-burr.

The mill is capable of crushing fifty tons of cement per day, and is pronounced by millmen who have examined it the most substantial and well-finished mill, both in the machinery and millwright work, they have yet seen. It is claimed that, taking into consideration the amount of water used, and the pressure or hight of penstock, and the amount of duty performed, the wheel is giving a much larger percentage of work than was ever before obtained from a water-wheel of that class, or, indeed, from any other style of water-wheel, except, perhaps, hydrostatic wheels, or those working on the principle of the hydrostatic engine.

This mill being the first one put up in this vicinity, was considered by the owners somewhat in the light of an experiment, they having great doubts as to whether their cement was rich enough to pay for crushing; but after the first clean-up, we understand they were offered and refused $1.50 per day for the receipts from the mill, the running expense not reaching $40. The cement from which this clean-up was obtained, was refuse gravel, which had been thrown aside as utterly worthless for sluicing, by reason of its unyielding nature. The success of this mill will, doubtless, lead to the building of several others in that vicinity.

Petroleum Convention.—We understand that it is in contemplation by several parties interested in prospecting and boring for petroleum, to propose the holding of a Convention of persons engaged in that business. This step is proposed from the fact that the Miner's Convention, at Sacramento, decided to take no action in relation to petroleum, on the ground that that business was strictly foreign to the purposes had in view in calling that Convention. It appears to us that much good might grow out of such a movement. The petroleum interest is one which certainly promises to become one of no inconsiderable importance; and in the present uncertainty of possession of such lands, it appears eminently proper that some concert of union and action should be aimed at, in this particular, before conflicting interests become too much mixed to admit of a simple and friendly adjustment upon some common and equitable ground. The columns of this paper will be open to any expression of opinion upon the subject, which may be desired by parties interested.

Severity of the Winter in Oregon.—Parties who recently arrived at Portland from Walla Walla, say that the road to Boise is lined with deserted wagons. Teamsters, when overtaken by the storm, cut loose their animals, and fled for safety. Much of the stock is in poor condition. Many teamsters will lose their entire trains.

Advices from Fort Lapwai, up to the last of December, say that the weather there has been intensely cold—the mercury having fallen to 25° below zero. Several Indians and Chinamen, and quite a number of cattle and hogs had been frozen to death.

Great Springs.—There is a spring in the centre of the town of Huntsville, Alabama, from which flows a stream of water large enough to float a thirty ton batteau. It is believed to be the largest spring in the world, and it is an object of great interest to the people of the neighborhood and visitors. Another spring, near Florence, in the same State, throws out a body of water estimated at 17,000 cubic feet per minute.

The Connecticut River to be Leveed.—The people of Hartford held a public meeting on the 27th ult., to consult about building a dyke along the Connecticut river, to prevent the annual flood. A handsome sum has been pledged for this purpose by private subscriptions.

The Mines of Utah.

The daily Union *Vedette* says: "It is gratifying to every well wisher of Utah, and to the cause of good government and progress, to know that the mineral resources of this territory are beginning to attract attention abroad. For several years, as the *Vedette* has from time to time chronicled in modest phrase extensive and exceedingly rich silver veins have been discovered, first by the soldiers and subsequently by the gentile civilians who floated in upon us. For want of the needed capital to construct furnaces, erect machinery and develop these leads, our advancement in extracting the precious metals has not been so rapid, nor our progress so marked as it otherwise would have been. But enough labor has been performed, and sufficient advancement in the development of Utah mines been made, to assure the most skeptical that this Territory presents one of the widest and most lucrative fields for capital, energy, science and labor. The hardy adventurers who discovered the rich mines of Rush Valley and Bingham Cañon, who are developing the Cottonwood and Western Districts, and those who have explored and opened up the marvelous riches of Meadow Valley and Pah-Ranagat regions, on the southwestern verge of the Territory, now begin to reap the reward of their perseverance, energy, and faith in the assurance that capital will soon flow in upon them to give value to these mines, and remunerate itself in early and practical development. During the past year representatives of Eastern and European companies have visited Utah, accompanied by gentlemen of scientific acquirements. These gentlemen, as we know, have passed through our several mining districts, carefully examined the ores and the mines, and taken extensive notes on which to base their reports. Not one have we met, and we have had the pleasure of seeing most, if not all of them, but have expressed the highest encomiums on our mines, even after having traversed the world-wide silver regions of Nevada, Idaho and Montana. Of those whose opinions are entitled to the greatest weight, we may mention Professor Eaton of New York, and Professor Pritchett of England, both gentlemen of scientific and chemical attainments, and conversant with practical mining. One and all concur that with the facilities to be found here in close proximity to the silver mines, wood, water, coal, fire clay, iron and copper, in connection with the character of the ores and the practicability of separating the baser from the precious metals, the mines of Utah present the most desirable and promising field for the investment of capital, enterprise and labor. These ores are mainly argentiferous galena, and their reduction and separation can be accomplished without the enormous expenditure for mills and heavy crushing machines required in most other countries. All that is absolutely necessary to transmute the ores into glittering silver are furnaces for melting them down. At Stockton in Rush Valley, but forty-five miles from this city, the crudest furnaces and the most simple devices have sufficed to prove the tractibility of the ores and the facility and cheapness of their separation. One or two companies of Eastern capitalists have located there, purchased extensive interests in the mines, and are engaged in putting up the necessary furnaces and apparatus, on a more extended scale than the original locators were able to do. In the early spring we are promised the most desirable results, and preparations are being made to develop the Pah-Ranagat and other districts by capitalists from the East as well as by our own citizens.

Oil wells or diggings of a highly promising nature, have been discovered in England. At present, says the London *Shipping Gazette*, we are unable to give the particulars, although assured that they will prove of such a nature as to astonish the public.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

BISULPHIDE OF CARBON.

[By Dr. Lanszweert.

Having lately been severely victimized by the use of this deleterious and very explosive compound, it may be proper for me to place the public on its guard against a careless use of tha sama; and having, moreover, noticed an advertisement in your journal that a gentleman of this city, offers to the public a new roasting furnace, by the use of which "all the sulphur [evolved in the process of roasting sulphurets] is saved; by being converted into bisulphide of carbon, which is a valuable product, and will pay nearly all expenses," I have thought it might not ba out of place to give, through your columns, a few facts with regard to the manufacture, usa, and nature of this singular substanca. I think the geentleman above alluded to must be mistaken, both with regard to the real nature of tbe process of its manufacture, as well as in regard to its commercial value. He certainly cannot convert "*all* the sulphur" contained in the sulphurets "into bisulphide of carbon;" neither is it possible for the bisulphide so produced to "pay nearly all expenses," at its present nominal value of about five ceuts per pound, at which price it is now offered to the trade. The following notes on tha manufacture, apparatus used, rectification, properties and industrial application of this agent, may be interesting to your readers:

Bisulphide of carbon was discovered in 1796 by Lampadiua, and is expressed by the formula CS^2. For a long time this subject was known only as a laboratory product. Within the past fifteen years the process of its manufacture bas been very much improved, and many industrial applications have been devised for its use; while to meet the increased demand, it is now prepared on a very large scale.

In 1850, M. Macquart, of Bonu, prepared bisulphide of carbon in large quantities. In 1840, the kilogramme (over 2 pounds) was sold in Paris at from 50 to 60 francs (ten to twelve dollars); but in 1850, M. Deis sold it at 8 francs, and since 1856 he has manufactured 500 kilogrammes daily, and now sells it at 50 centimes (9 cents) the kilogramme. Bisulphide of carbon can be produced by the direct combination of sulphur and carbon at a high temperature; also by the dccomposition of a certain number of organic compounds. In heating simply a mixture of sulphur and carbon, there is no combination, as the sulphur volatilizes before it has attained the temperature uccessary to tbe action; but when charcoal is heated to red heat, and the vapor of sulphur is passed over this incandescent mass, the carbou burns iu this vapor, producing bisulphide of carbon.

The earliest apparatus for the preparation of this compound consisted of a porcelain tube filled with fragmeuts of charcoal, and placed in an inclined position in the center of a laboratory furuace. The upper end of tbis tuba was closed by a stopper of clay and chalk, and the lower end was connected by a bended glass tube, with a bottle partly filled with watar. Whan the charcoal was made red hot, the stopper was taken out of the tube, and a piece of sulphur inserted; the sulphur, so placed, melted and run into the tube, where it came in contact with the red coal, was volatilized and combined with it, producing bisulphide of carbon, which, in a state of vapor, is condensed upon the water, and settles to the bottom by its specific gravity. This was the imperfect laboratory process employed for its early manufacture, which was on a small scale ouly. As already stated, this manufacture is now conducted on a very large scale, and the principle of the apparatus used is always the same, viz., that sulphur in vapor is always passed through coke or charcoal brought to a bright red heat, then condeusing the vapors of bisulphide of carbon as rapidly and completely as possibte.

The first improvement made for tbis preparation was the use of a large tubulated earthen retort to heat the coal. A tube of hard glass or porcelain was put through tha tubulatura of the retort, which was so constructed as to reach nearly to its bottom, for the introduction of aulphur. The neck of the retort was adapted to a condenser cooled with a stream of water, and communicating with a receiver, as already described. With this apparatus large quantities were obtainable. The various kiuds of apparatus now in use for the iudustrial manufacture of bisulphide of carboo ara actually constructed according to the same principle, and differ only in the form of the retort, the way of introducing the sulphur, and the different combinations of the condenser. It is impossible, without drawings, to give an intelligible description of tbe details of these various kinda of apparatus; still I will endeavor to give one or two of their most characteristic details.

M. Peroncel, who has introduced the manufacture of this substance on a very large scale, heats the coke in a large cast-iron cylinder, 2 metres (about 39½ incbes) high by 30 centimetres in diameter, placed vertically in the furnace. The tube for the introduction of sulphur is near the bottom of this cylinder. The uppar part of the cylinder is connected with an earthen jar, in whicb most of the bisulphide is condensed, and from which it runs into a closed vessel placed under the jar; the noncondensed vapors are conducted by a tube fitted to tha upper part of the eartben jar into a refrigerating coil, where they arc condensed. The coil is in connection with a closc receiver. This apparatus can produce nearly 100 kilogrammes of bisulpbide daily. The cast-iron cylinder is very quickly attacked and destroyed by the sulphurous vapor—it will seldom last longer than a week. The use of fire-clay cylinders, tha same as those employed by the gas manufacturers, may be considered an important progress in the improvement of this manufacture.

M. Gerard, of Grenelle, usea cast-iron cylinders two metres higb, of an elliptic section (diamater 1.40 metre). They are filled witb coke, and the sulphur is introduced by means of an inclined tube passing through the side of the furnace, and reaching uear the bottom of the cylinders. The sulphur vapor is thus obliged to pass through the whole of the red heated coke. Tbe vapors of bisulphide thus obtaioed, ara first conducted to a receiver, where the largest quantity is condensed; that which does not condense, passes to a refrigerator, composed of three large metallic cylinders, placed one above the other, and connecting with each other by tubes. The whole is surrounded by cold watcr. The vapors first pass into the lower cylinder, where immediately a large quautity condenses, the balance rising into the upper ones, run from there in the lower, from which by a tube they ara received in a close vessel.

This apparatus furuishes, in twenty-four hours, 200 litres (50 gallons) of impure bisulphide of carbon, weighing 248 kilogrammes, at a cost of 41 kilogrammes of coke, and 230 kilogrammes of sulphur. Loss about five per cent. of the crude materials employed.

Galy, Cazalat, and Huillard have patented, in England, a large cylindric oven, divided horizontally into two parts by a fire-clay grate. This is denominated a *calorifere*, as being the principal source of heat. The upper part of the oven is vaulted, and supports a low, vertical chimney, which can be closed perfectly by a damper. Around this chimney is a circular trough or reservoir, containing the sulphur which is kept liquid by the waste heat of the chimney. From this, by way of a faucet, sulphur is run as may bc dcsired. At the bottom of the lower part of the oven an opening is made sideways, to counect the tube conducting the vapors to the condensers. Tha coke is lighted in the lower part, which is gradually replaced when burnt out. The combustion is continued until the whole interior of the oven is at cherry-red. All the apertures are then closed, and according, as described above, the sulphur is run into the oven; the melted sulphur dripping on the fire-clay grate is instantaneously reduced to vapors, and passed through the red-heated coke; tbe vapors of bisulphide of carbon thus obtained pass to the condensers, where they liquify.

[To be Continued.]

Growth of Chicago.—By an estimate made near the close of last year, it is calculated that during 1865 nine thousand buildings were put up in Chicago. Six of them cost $100,000 each; forty others cost $30,000 each; and eight hundred were worth over $1,000 each. The total amount of capital employed during the year was six million dollars. The number of new churches was seven; schools, two, and public halls, four.

Pithole has now thirty producing wells, sixteen that have produced, but are now out of order. The daily yield, is 8,603 barrels, or six barrels per minute. At $6 per barrel, the present price of oil, it amounts to $51,648. The sum of $12,000 pays all the expenses, being a profit of $49,618 every twenty-four hours.

"Three thousand of the finest poems in tbe English language" are being collected, and will bc published in one volume, in London, for Christmas.

The Viceroy of Egypt's astronomer has discovered, by a course of astronomical calculations, that the great pyramids were built about 3,300 B. C. Bunsen thinks it was 3,400.

[Written for the Mining and Scientific Press.]

The Mines of Grass Valley and Nevada.

Nevada, Jan. 12, 1866.

Editors Press:—Since my last, I have been, to use a Western phrase, "circulating about" in the neighborhood of this place and Grass Valley, until the present snow-storm, "and its" attendant "slush" and discomfort, drove me in-doors, and I am no longer "current."

While thus unable to travel, it is probable that I cannot be better employed than in jotting down some notes of what I have seen and heard during the last two weeks, including, of course, notices of the leading mines and mills about Grass Valley and Nevada, some of which, though I shall be able to-day to give them but a passing notice, are "booked" for a second visit.

That I may be more fully understood, I will premise that I begin with the notes taken during a day spent among the mills and mines located to tbe south and southeast of Grass Valley, within a distance of three miles. Tha first of these that I encountered, and one of the oldest establishments in the district, is the

"Gold Hill Mill,"

Located one mile south of Grass Valley, and superintended by Mr. J. K. Edwards, a brother of Mr. Hannibal Edwards, superintendent of the Eureka mines, Summersville, Tuolumne county, and a fine specimen of an experienced and practical miner. This is a 20-stamp mill, driven by steam, the eogine used being of the "double-acting, condensing, working-beam pattern," so much in vogue years ago, and bearing the suggestive trade-mark of "James Watt & Co., Soho, England." As I stood by this fire-breathing monster, my mind was carried back to the days when, as a school-boy, it was my duty to explain the mysterious diagrams representing Watts' noequaled invention, a working model of which I had never seen until that day, and as I watched the movement of its complicated arrangement of rods and levers, I could not wonder at tha superstitious dread which the first engine must have inspired among the unsettled miners of Northern and Western England in the time of the great inventor.

The mill was employed at the time of my visit in crushing quartz from the Ione ledge, of which I shall speak more fully hereafter. A fine lot of quartz from the Illinois lode was also lying at hand, waiting its turn to be relieved of its precious charge.

Half a mile farther in the same direction brought me to the

"Sebastopol Mill,"

Mr. Ben. McCauley, superintendent, which was not running at the time. This is a 12-stamp custom mill, driven by steam, and appears to be thoroughly and perfectly constructed in every part.

Half a mile southeast of the Sebastopol, on Wolf Creek, is

"Larimer's Mill,"

Lately finished by Mr. Jno. W. Larimer, sole proprietor and manager. This is an 8-stamp water mill, and is employed, like the two last-mentioned, in crushing custom-rock. Both this mill and the Gold Hill at present use the old system of amalgamating in the batteries, and on copper plates placed in sluices below; but Mr. L. contemplates a visit to the Bay in a short time, for the purpose of choosing improved amalgamating apparatus, to be introduced into his mill.

A short distance further to the southward brought me to the

"Illinois Mine,"

The property of Messrs. Leech, Henderson, and some others whose names I have forgotten. The course of the ledge is east and west, with a dip to the southward of 40 degrees. Its thickness varies from six inches to four feet, the average thickness throughout being about two feet. It is situated in a granite formation, and consists of a light-colored, bluish gray quartz, carrying large quantities of sulphurets, and pleutifully specked with free gold, I was informed that tha rock from this mine, crushed at the Gold Hill mill, had, thus far, averaged fifty-two dollars per ton. Tha workings have reached a depth of 140 feet, and the word is, the vein is "still improving."

A short distance eastward from the Illinois, is

"The Lone Jack,"

Owned, in part, by Mr. C. T. Wheeler, of Sacramento. I did not obtain any statistics in regard to this mine, but was assured by the superintendent that it was "doing well, which was fully sustained by the appearance of tha quartz that was coming out of the mine.

About a mile from the Lone Jack, and three miles southeast from Grass Valley, is the

"Ione,"

Owned by Messrs. Hurst, Samuel F. Curtis, of the Savage mine, and Mr. Hunt, the present superintendent. Tbis mine haa been lately opened on ground purchased of the Empire company, and appears likely to soon rival the most famous mines of this district in richness and extent. The general course of tha lode is north and south, with a dip to the eastward of twenty-five degrees. The ledge is represented as having an average width of three feet, and I am assured by Mr. Hunt that the average yield has herctofore been $40 per ton. On meeting Mr. H. the following evening, he told me that they had that day taken out better quartz than ever before. He was sanguine that it would pay $100 per ton. The proprietors are preparing to put up a 10-stamp mill, with a capacity for twenty stamps, for whicb they expect the engine now doing the hoisting and pumping of the mine to furnish sufficient power, in addition to its present work.

Returning, I stopped at the

"Hartery,"

Owned by Messrs. McLaughlin and Loutzenheiser, of Grass Valley, and Mr. J. O. Keefe, of San Jose. As the superintendent was absent at the time, I was unable to obtain all the information I desired. The following facts I learned from Mr. Henderson, who is engaged in erecting the machinery for the hoisting works, pump, and mill, which the proprietors have in process of erection. The mine has been explored to a depth of 140 feet, and extensive drifts have been run, disclosing a ledge from one to two feet in thickness, and of such richness, that the proprietors feel warranted in erecting an 8-stamp mill, which is now being built.

On Monday I left Grass Valley for this place, and during the evening formed the acquaintance of Mr. S. P. Leeds, superintendent of the New York and Grass Valley Mining company, with whom, and Mr. Fenton, of Summit City, I visited the company's mine and mill at Gold Flat, three-fourths of a mile from the city, and known as the

"Sneath and Clay,"

From the names of its former owners, from whom it was purchased by the New York and Grass Valley Mining company. The vein is situated in a primitive formation, the wall being of syenite, or, as it has here been called, granite, and is of varying width, averaging probably twenty inches. The strike of the ledge is north, twelve degrees east, and it dips to the eastward at an angle of twenty-three degrees. The mine is opened to a depth of 350 feet, by an incline, and is worked on three different levels, at depths of 212, 272 and 350 feet, on all of which extensive drifts have been run, and valuable ore taken out. The quartz pays from $18 to $25 per ton, and can certainly be worked with profit in the mill, which stands convenient to the mine, so that the ora is run on cars, from the top of the incline, direct to the batteries. The mill has a capacity of twelve stamps. Amalgamation of the gold in the batteries, by means of copper plates, is the principal mode of saving it, after which the heavier sands are caught on blankets and ground in Chile mills, and, last of all, the sulphurets are concentrated by means of shaking tables, and saved.

After passing through and examining the mine and mill, we proceeded to the

"Union Mine,"

Situated three and a half miles southeast of Nevada, in a granite formation, the walls of tha vein being of diorite, resembling in appearance the "Angel Island Granite" of San Francisco. The vein varies from a few inches to four or five feet in thickness, averaging, probably, two and a half or three feet. The course of the vein is nearly or quite north and south, with a pitch to tha eastward of forty-three degrees. Near tbe mine is a 5-stamp mill, also the property of the company, in which some of the ore is now being worked, paying, Mr. Leeds informed me, an average of about thirty dollars per ton. Tha mine was formerly worked through tunnels, driven in upon the vein from the ravine to the southward, but Mr. Leeds is opening it through a splendid incline, which he calls his "Excelsior Shaft," and it is one he may well be proud of. Five feet by fifteen in the clear, and supported by timbers sawn from the heart of the spruce, it furnishes a convenient, roomy, and durable means of access to all parts of the mina. Thia shaft has

now reached a depth of 240 feet, and levels have been opened, one of which we explored, finding the vein strong and well defined throughout. I cannot drop this subject without dropping just here a hint to future travelers, whose interest and inclination lead them to desire the acquaintance of the "miners of Nevada city,"—it is just step at the Union Hotel. Messrs. Eaton and Williamson are both deeply interested in mining themselves, and generally manage to keep around them some, at least, of the best practical miners in the country. For my own part, I shall never forget the evenings spent here, in company with Messrs. Eaton, Hagadorn, Leeds, Fenton and others, and never before did I so fully realize the sterling worth of character and sociability of the true California miner.

On Wednesday morning I took leave of the very agreeable company at the Union, and returned to Grass Valley. Of my further experience, more next week.

Yours wanderingly, D.

[Written for the Mining and Scientific Press.]

Blind Spring District, Mono County.

BLIND SPRING DISTRICT,
PARTZWICK, December 29, 1865.

MESSRS. EDITORS:—But little has been mentioned in the public journals concerning the mines here. This silence has been caused principally by the desire of those interested, to be first certain of the permanency and wealth of the ledges before giving much publicity to the operations going on. The Sierra Blanca Silver Mining company, an incorporation formed in New York, and consisting of some of the wealthiest merchants there, the President of which is S. E. Low, Esq., dispatched Dr. A. F. W. Partz, a practical and well-experienced mineralogist and assayer, to this section of the country, to examine its mineral resources and report thereon. After a thorough investigation, and testing the rock by every known process, his report was favorable. The President of the company visited it personally, and the result was the purchase of a number of the best ledges at remunerative prices to the prospector. Among these, the Elmira, Cherokee, Jupiter, and Vulcan are considered the best. From the first-mentioned, a shipment of ore sent to New York has created the liveliest excitement there, and has drawn the attention of capitalists to this portion of the land of sage brush and silver. In addition to their investment in the mines, the company also bought the entire Hot Spring Valley, a tract of land embracing about six hundred acres, situated in the immediate vicinity of their leads. At the head of the valley is the spring from whence it takes its name. With a capacity sufficient for any number of mills, its value is almost incalculable.

In the immediate neighborhood are large tracts of wood-land, several of which are owned by the company, and building material, in the shape of beautiful and easily-dressed stone, exists in large quantities; with these, and many other advantages, the purchase was a most judicious one. Already the site for a town has been selected, and building is going on rapidly. An excellent hotel, stable, saloons, and a store have been completed, besides the company's offices and the superintendent's residence. They have their reduction works nearly finished, and are fully developing their many ledges. In addition to these operations, many others are hard at work. The Diana lead, owned by Williams, Wickland, LaRue and others, is, without exaggeration, one of the richest on the Pacific slope.

With a little 4-stamp mill, capable of crushing only about 1,500 pounds per twenty-four hours, they take out on an average sixteen pounds of bullion a day, worth about eight dollars a pound. Their tailings show from assay very nearly as much, so imperfect is the manner of working the rock. The Merrimac, Mary Ann, Everett, Camanche, I X L, Juno, Chieftain, and a host of others, are proving very rich as they are gone down on. The best proof of the success of this district, is the fact that there is not a man who desires work that is out of employment—either working for himself or for wages, which are of the highest ruling rates, and promptly paid in gold.

A company, incorporated under the laws of Pennsylvania, have purchased the Cornucopia lode. This company consists of some of the largest bankers and merchants in Philadelphia. With a capital of $1,000,000, and under the supervision of their present competent officers, it will not be long before their mine will rank as high as any on the Comstock ledge. They have just commenced operations, and will proceed in a short time to erect their works.

It was from this mine that the rock was taken which received the first premium at the late State Fair. The ore here from the various ledges exhibits a strong resemblance, containing carbonate of copper and lead, argentiferous galena, native silver, and hematite.

From Silver Peak, which is situated some thirty miles from this place, we hear the same glad tidings. Martin's mill, of ten stamps, is taking out from $1,500 to $2,000 per day, and when the new one of forty stamps is completed, of course the yield will be immense.

Montgomery, laying about seven miles off, is not doing so well. This is owing to the fact of the mines, as a general thing, being in the hands of parties who have not the necessary capital to work them. That it contains some remarkably rich ledges there can be no doubt. Here is located the Osceola, 1,100 pounds of the rock from which yielded in San Francisco $4,200. The Bowman & Mitchell, which has been constantly worked, shows a ledge four feet in width—nearly two feet of it will pay over $150 per ton.

The Philadelphia, Mountain Queen, and Brewster have also been sufficiently developed to prove their value, while of the Winnemucca, Uncle Abe, Rhode Island, and a score of others, there is no doubt. Several small mills have been erected, but as the rock is of a peculiar character, they do not succeed in saving more than a small proportion of the precious metals.

All this district needs is capital, and men who understand how to work the rock, to make it rank among the best in the country.

My letter is already growing too long. Should you desire it, at some future time, I will send you an account of the districts below this place, as well as keeping your readers posted on any new discoveries here. X.

[Written for the Mining and Scientific Press.]

Markleeville Correspondence.

MARKLEVILLE, Jan. 1st, 1866.

MESSRS EDITORS: I have been waiting for some time past for the spirit to move me, before writing for the PRESS; but as the spirit is not very active just now, owing, in a great measure, to the extreme cold weather. I have concluded to write any way, and let the spirit move at some other time.

We have had some very cold weather in this part of the country, for several weeks past. The thermometer has several times been as low as 10° below zero. We have had several snow storms, and the mountains are all covered over, and look as if they had put on their winter robes, and crusted over, as if to guard against the fierce winds of winter. The valleys and lowlands have been covered several times, but a few warm days have melted off the snow, and now it has nearly all disappeared from off the level ground.

The old year has passed away, but never to be forgotten. Some of the most wonderful events that have ever transpired since the existence of our Government, are connected with the past year, and will be handed down in history to the latest time.

The New Year has made its appearance, and the cheering rays of Old Sol bespeak a brighter future. The weather has become settled and clear, and the prospects are that we shall have an open winter and an early spring.

OUR MINING INTERESTS

Are looking up, and attracting considerable attention from abroad. Several companies controlling Eastern capital, have already commenced operations in our midst, and many other Eastern companies are preparing to take hold early in the spring. From all appearances we shall have good and lively times here before the close of the present year, whether we shall have a change in the currency of our State or not.

THE ACTIVE GOLD AND SILVER MINING COMPANY

Is incorporated in New York, and have sent out mill machinery, under the charge of their Superintendent, T. W. Collins, who is now making all the necessary arrangements for erecting a mill at Mount Bullion, five miles above this place, early in the spring. This company are going to reduce ores on the desulphurizing and amalgamating process, and are confident that they will have no trouble in reducing and successfully working, the Morning Star rock; and that too, at a very reduced price, so that the copper contained in the rock will pay for all costs of mining and milling. It is estimated that by this process, it will only require one cord of wood to desulphurize one hundred tons of ore. If this company is successful with their new patent, there is no doubt but that many claims in this region can be made to pay which are now looked upon as almost worthless, and that the company will be successful, seems to be almost a foregone conclusion. Successful tests have been made, and the company doubtless know best what they are about; and certainly would not go to such an enormous expense merely to experiment. Mr. Collins, the Superintendent, is now below and intends getting his machinery over the mountains this winter.

THE PACIFIC MINING AND EXPLORATION COMPANY

Is incorporated in London, and having interests in Alpine county, sent their agent, Captain James Barratt, all the way from England to see these mines; and he having first visited the Virginia, Reese River and Humboldt mines, made his appearance among us last week; and was much pleased with our prospects. He has since gone away to make arrangements for operating here next spring.

THE ST. HELENA COMPANY

Are operating in Alpine District, and have capital from Illinois, to back them up. They have been sinking a shaft, and now, after having sunk about one hundred feet beside their ledge, are at present drifting so as to cut the ledge. The rock from this claim looks well, and they are expecting to get pay ore at the present depth.

THE MORNING STAR COMPANY

Have been sinking a mammoth shaft, which is now down and connects with the works below. The shaft is four by nine feet in the clear, and heavily planked. This is destined to be one of the best mines on the Pacific coast, and when the Active company get under way next spring, there will be no trouble but what this claim will pay a dividend from the word "go."

THE LEVIATHAN COMPANY

Is also in Mogul District, and have recently cut their ledge with a tunnel about 250 feet below the surface. They have not yet got through their ledge, but the rock assays $270 per ton in gold and silver, and about twenty per cent. in copper. Up to the last news from the claim, they had gone into the ledge only about four feet.

THE LUMBERING BUSINESS

Continues to be an important business in Alpine county. It was estimated that 14,000,000 of feet of lumber, including saw-logs, mining timbers, and fire-wood, were run down the Carson last season to supply the Virginia and Gold Hill market, and the "regions beyond," and the lumbermen are going ahead this winter with the same energy, preparatory to the drive next summer. About 7,000 cords of wood are being got ready just above this place, to be driven out of the Middle Fork of the Carson (which passes through this town), and destined for Empire City, to supply, in part, the same market.

AN ENTERPRISE

Is now on foot to build a flume from Cary's mills, a little town six miles below this place to take water from the Carson Cañon, for the purpose of running fire-wood to Empire City. A preliminary survey has been made, and the distance is about thirty-one miles. The flume will pass through the farming region of Carson Valley, thereby proving a benefit to the farmers for irrigating purposes, besides being a grand highway for all persons living along the route of the flume, for conveying sawed lumber and fire-wood. The estimated cost of this flume is about $2,500 per mile, and when completed, is bound to be a paying institution.

THE PLACERVILLE RAILROAD,

If ever it crosses the Sierras, is bound to come through Alpine county, as there is no pass to the north over which they can pass. So you see, with all our facilities, "everything looks lovely, and the goose hangs high."

SIRROM.

PROGRESS OF OAKLAND.—The Oakland *News* says that a large number of fine residences will be erected there during the approaching spring and summer; and in six months from this date that place is to be lighted by gas, and supplied with water from reservoirs at the foot-hills.

PROGRESS IN EGYPT.—According to the *Phare de la Loire*, the Viceroy of Egypt has given to the American mission at Cairo a block of houses worth 200,000f. His Highness is also said to have given the missionaries free passes for the railways, and to have decided that religious journals and books shall not be subject to any tax.

THE whole distance, by the usually traveled roads, from San Francisco to New York, is 3,584 miles.

COPPER INTERESTS—THE SMELTING WORKS. We have frequently referred to the copper mines in the southern part of this county and Fresno. Three years ago, when they were discovered, there was quite a mining excitement, and claims innumerable were located and recorded. For a time there was considerable work done, but many of those enlisted in the business were not in a condition to furnish the means requisite to carrying it on, and out of scores of companies not more than a dozen were able to collect assessments, and gradually, for want of means, most of them ceased operations. During the past year the firm of Henry & Co., composed of citizens of this place, determined to make a new effort towards developing these copper mines. Before commencing any work, they entered into contracts with the owners of some of the best veins, agreeing to do certain work, and become equal owners. After this, the smelting works were erected near James' ranch, and the result of the enterprise, under the superintendance of Mr. Huskell, we have published. With but very little machinery, labor and expense, Mr. H. smelted out several tons of nearly pure copper. Shares at once went up, and those that cost a thousand dollars sold readily for twenty-five hundred. Since then there has been considerable speculation—many have visited that region and prospected the veins. Some have invested—all have been satisfied that it is a rich copper country. A change in the arrangement of the affairs of Henry & Co., caused for a time a delay in the business. They were burnt out in October, and their new machinery failed to work. Another change, caused by the selling out of some, and the coming in of new members, and Mr. Desormeaux, an experienced copper miner, took charge of the business. The latest information from the place is, that he is succeeding, to the satisfaction of all, in smelting the ore, being able to run out one hundred pounds per hour, at a cost trifling compared with the profits. The ore is easily taken out, there being thousands of tons on the surface and within fifty feet of it, and it is easily worked. It requires but one process to reduce it, while the ore at Copperopolis requires three. In the meantime, Mr. Haskell, at Buchanan Hollow, five miles south of the works of Henry & Co., has put up new smelting works, and is doing a good business. We believe that in less than two years from now this copper district will be one of the liveliest, as it is now richest in the State.—*Mariposa Gazette.*

POPULATION MOVEMENT.—The *Call* says that during the year 1865, there arrived at the port of San Francisco, by way of the sea, 25,784 passengers, while for the same period 29,776 left by the same way. The State lost during the year, by emigration, 3,992 of its population. There were 3,864 more people went to the East, by steamer, than arrived from that region; 1,825 more went to Victoria and Portland than came from those ports. China sent 799 more of its population to us than we sent away. The white population has fallen off over one per cent., and the Chinese population increased two per cent. by immigration.

SIZE OF THE WEST.—The La Crosse *Democrat* says: Illinois would make forty such States as Rhode Island, and Minnesota sixty. Missouri is larger than all New England. Ohio exceeds either Ireland or Scotland, or Portugal; and equals Belgium, Scotland and Switzerland. Missouri is more than half as large as Italy, and larger than Denmark, Holland, Belgium and Switzerland. Missouri and Illinois are larger than England, Scotland, Ireland and Wales.

THE interminable divorce case of Edwin Forrest, the actor, has assumed a novel shape. He appeals to the Supreme Court of the United States to set aside the action of the New York Supreme Court, which granted his wife a divorce, his grounds being that the marriage occurred in Great Britian, and the courts of this country have no business to meddle with it.

KEEP IN GOOD HUMOR.—It is not great calamities that embitter existence; it is the petty vexations, the small jealousies, the little disappointments, the minor miseries, that make the heart heavy and the temper sour. Don't let them. Anger is a pure waste of vitality; it is always disgraceful, except in some very rare cases, when it is kindled by seeing wrong done to another, and even then noble rage seldom mends the matter.

No two human beings were ever alike in body or mind. In other words, Nature has been engaged in making men and women six thousand years without ever making one that she thought it worth while to repeat.

A RECENT tornado in Italy blew a train of cars into the Adriatic Sea, and drowned a number of passengers.

RICH.—The Hanseom Copper Mine, in Del Norte county, is said to be one of the richest copper lodes on this coast.—*Sac. Union.*

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Monday, January 22.

AFTERNOON SESSION.

27 shs Yellow Jacket at 377½@327½ per ft.
13 shs Yellow Jacket at 380@410 per ft, s 30.
7 shs Yellow Jacket at 420@427, s 3.
3 shs Yellow Jacket at 425 per foot, b 10.
6 shs Yellow Jacket at 420@425 per ft, b 5.
1 sh Yellow Jacket at 430 per foot, b 30.
1 sh Yellow Jacket at 415 per foot, s 10.
1 sh Yellow Jacket at 426 per foot, b 3.
2 shs Savage at 660 per foot, s 30.
4 shs Savage at 680@690 per foot, b 30.
2 shs Savage at 680@685 per cent.
1 sh Savage at 630 per foot, s 3.
1 sh Savage at 635 per foot, b 5.
10 shs Hale & Norcross at 318@312½ per ft.
2 shs Hale & Norcross at 315 per foot, s 3
12 shs Ophir at 325 per foot, s 3.
60 shs Daney at 8 per share.
2 shs Chollar-Potosi at 227 per foot.
5 shs Overman at 38 per foot, s 3.
7 shs Overman at 39 per foot.
5 shs Imperial at 110 per share.
10 shs Bullion at 32 per share.
5 shs Bullion at 31½ per share, b 2.
75 shs Fireman's Fund at 122½ per share.
$10,000 Legal Tender Notes at 71½c.
$5,000 Legal Tender Notes at 71½c, b 10.
$5,000 Legal Tender Notes at 71¾c, b 5.
$10,000 Legal Tender Notes at 71¾, b 3.
Amount of sales.....$121,682 00

Tuesday, January 23.

12 shs Ophir at 325 per foot, s 3.
12 shs Ophir at 325 per foot.
10 shs Hale & Norcross at 315 per foot. s 3.
16 shs Hale & Norcross at 220@230 per foot.
2 shs Hale & Norcross at 325 per foot, b 3.
60 shs Daney at 7 per foot.
2 shs Belcher at 190 per foot.
6 shs Yellow Jacket at 410@400 per foot.
4 shs Yellow Jacket at 410@405 per ft, b 3.
14 shs Yellow Jacket at 400@405 per sh, s 3.
1 sh Yellow Jacket at 400 per foot, s 5.
1 sh Yellow Jacket at 395 per foot, s 10.
1 sh Yellow Jacket at 405 per foot, b 12.
16 shs Yellow Jacket at 395@390 per ft, s 30.
8 shs Alpha, G. H. at 290@300 per ft.
12 shs Chollar-Potosi at 223½@231 per foot.
19 shs Chollar-Potosi at 223 per foot, b 30.
4 shs Crown Point at 570 per foot, s 30.
4 shs Crown Point at 580 per foot,
2 shs Savage at 680@690 per foot, s 15
5 shs Savage at 690@695 per foot.
4 shs Savage at 700 per foot, b 30.
4 shs Gould & Curry at 835 per foot.
75 shs Imperial at 111@113½ per share.
50 shs Imperial at 110@109 per share, s 30.
10 shs Imperial at 113 per share, b 3.
5 shs Imperial at 113 per share, s 3.
25 shs Sierra Nevada at 7¾ per share.
130 shs Exchequer at 6 per share.
50 shs Lady Bryan at 1¾@1¾ per share.
100 shs Spring Valley W Co at 57@56¾ p. c.
2 shs Cal Steam Nav Co at 61 per cent, s 60.
$5,500 U. S. 7-30 Bonds at 71¾ per cent.
$20,200 Legal Tender Notes at 71¼@71¾c.
$5,000 Legal Tender Notes at 71¾c, b 3.

AFTERNOON SESSION.

2 shs Hale & Norcross at 320 per foot, b 3.
6 shs Hale & Norcross at 330@335, b 3.
2 shs Hall & Norcross at 357½ per foot.
4 shs Hale & Norcross at 356 per foot.
2 shs Hale & Norcross at 352½ per foot.
2 shs Hale & Norcross at 352½ per ft, b 3.
18 shs Hale & Norcross at 350 per foot.
2 shs Hale & Norcross at 345 per foot.
1 sh Yellow Jacket at 405@402½ per ft, b 3.
2 shs Yellow Jacket at 402½ per foot.
7 shs Yellow Jacket at 403 per foot, s 3.
1 sh Yellow Jacket at 403 per foot, b 3.
4 shs Yellow Jacket at 395 per foot, s 10.
1 sh Yellow Jacket at 404 per foot.
8 shs Gould & Curry at 825 per foot,
11 shs Chollar-Potosi at 231 per foot, s 3.
1 sh Savage at 700 per foot, b 30.
4 shs Savage at 680 per foot. s 30.
2 shs avage at 695 per foot.
12 shs Ophir at 335 per foot.
40 shs Daney at 7½ per foot.
40 shs Daney at 8 per foot.
80 shs Daney at 8¼ per foot.
20 shs Daney at 9 per share.
15 shs Overman at 40 per foot.
1 shs Imperial at 113 per share.
15 shs Imperial at 114 per share.
5 shs Imperial at 114 per share, s 3.
9 shs Imperial at 115 per share.
25 shs Imperial at 112 per share, s 30.
8 shs Imperial at 116 per share.
5 shs Imperial at 113 per share, s 30.
4 shs Imperial at 116½ per share.
15 shs Imperial at 114 per share, s 30.
5 shs Imperial at 117 per share.
2 shs Imperial at 118 per share.
10 shs Imperial at 117@118 per share, b 5.
5 shs Imperial at 117 per share, s 3.
10 shs Imperial at 117¼ per share, s 3.
5 shs Imperial at 114 per share, s 20.
10 shs Imperial at 111 per share, s 30.
103¾ shs Exchequer at 5½ per share.
1 sh Bullion at 32 per share.
5 shs Bullion at 33 per share.
$ 2,000 Legal Tender Notes at 71½c.
$10,000 National Bank Notes at 70¾c.
Amount of sales.....$163,248 00

Wednesday, January 24.

4 shs Gould & Curry at 820 per ft. s 3.
8 shs Gould & Curry at 820 per foot.
4 shs Gould & Curry at 810 per foot, s 30.
15 shs Savage at 710@680 per foot.
3 shs Savage at 710@715 per foot, b 30.
1 sh Savage at 700 per foot, s 30.
1 sh Savage at 710 per foot, b 5.
2 shs Savage at 705 per foot, s 3.
2 shs Hale & Norcross at 370 per foot, b 10.
20 shs Hale & Norcross at 355@375 per ft.
14 shs Hale & Norcross at 360@375, s 3.
5 shs Yellow Jacket at 405 per foot, b 3.
4 shs Yellow Jacket at 400@380 per ft, s 3.
13 shs Yellow Jacket at 395@385 per foot.
1 shs Yellow Jacket at 380 per foot, s 20.
7 shs Yellow Jacket at 380@375 per ft, s 10.

FROM THE OFFICIAL REPORTS

Of the Fifth Industrial Exhibition

Of the Mechanics' Institute, San Francisco, 1865.

[Just Issued—Mining and Scientific Press Book and Job Office.]

[*Continued from Page* 37.]

ON ESSENTIAL OIL EXTRACTOR.

Committee:

I. ROWELL, M. D., R. BEVERLY COLE, M. D., WM. H. KEITH.

Essential Oil Extractor, exhibited by V. Squarza, patentee. This is a machine of California invention, well worthy of consideration, from the fact that it extracts the oil from lemons, oranges and other fruits, in great purity and without injury to the fruit.

The great demand for these oils will, no doubt, be much more promptly and cheaply met when this invention shall have found its way into general use. An inspection of this machine exhibits distinctly the thoroughness of Mr. Squarza's knowledge of the subject and his great ingenuity in its practical application. This being undeniably a Californian invention of great promise, the Committee conceive it worthy, in an eminent degree, of special consideration.

DESCRIPTION OF OIL EXTRACTOR.—The body or frame work of this machine consists of several compartments, the one within another, with spaces between. These compartments may be described as hexagonal boxes, equal in length but differing in diameter. The whole is arranged to be suspended on pivots, and rotated by a power which operates upon an axis perpendicular to the hexagonal sides of the machine. The innermost and smallest of the two boxes or compartments has an orifice at its smaller end, by which the fruit to be used is passed into the machine by means of a feeding pipe. The diameter of the first and interior box increases towards the extremity opposite that where the fruit enters, so that when the concentric, hexagonal boxes are rotated, (being hung upon a horizontal axis), there will be a gradual downward inclination of the under-side of the box from the end where the fruit is admitted to the opposite end. This inclination is sufficient to cause the fruit to find its way—as the machine is slowly rotated—to the larger end, where there is an apperture opening into the *second* box or compartment, exterior to the first. This second compartment has its greatest diameter at the end opposite that at which it receives the fruit from the first and, consequently, at the end where the first compartment has its *least* diameter. Thus, the fruit, passing from the larger end of the innermost box into the smaller end of the second one, is carried by the inclination of the latter, towards the larger end, being the same from which it started in the first. Here it finds its way through another apperture into the smaller end of the third and outer compartment, which, in its turn, enlarges in the opposite direction, causing the fruit to roll once more towards the larger end. Each of the boxes or compartments has its inner side covered with projecting steel points, set at regular intervals. By means of a double cover to the boxes, the steel points being set in the outer cover and projecting through apperatures in the inner one, the length to which the points protrude on the inside of the boxes can be increased or diminished at pleasure, being regulated by screws, which separate or draw together the double covers, as may be desired. The steel points are designed to perforate the rind of the fruit and thoroughly break up the cells containing the essential oil, which is thus set free. The mode in which the machine operates is as follows: The fruit passing into the innermost compartment, while the machine is slowly revolving, rolls over the steel points and gradually reaches the larger end, where it passes into the sacred compartment and then, by a reverse process reaches the third, where it again rolls to the larger end. Here there is an arrangement of small boxes, opening directly opposite a passage into the inner compartment, by which the fruit is caught and thrown back into the said inner compartment, so that the process can be repeated as often as may be necessary. The motion of the fruit over the steel points perforate the rind throughout its whole extent, and more thoroughly disintegrates the cells than can be done by any other process in use. When it is supposed that the fruit has been long enough in the machine to have all the essential oil extracted, a sliding door near the larger end of the outer box or compartment is opened, through which the fruit gradually falls into a receptacle prepared for it.—Awarded a silver medal.

ON WINES, LIQUORS, AND MALT BEVERAGES.

The extent of the grape culture in California, at the present time, is said to exceed that of all the rest of the States combined; and the production of wine and brandy, especially that of the former, is increasing so rapidly that it bids fair soon to drive all foreign competition from this market. In almost all parts of the State the soil is suitable for the successful cultivation of the vine, while, for the maturing of the fruit and making of wine, the climate has no superior.

Under the auspices of the Catholic missionaries who first settled in California, the vine and olives of Spain were introduced at the various missions, and the former soon became a common fruit throughout the country, wherever the white man made his home. Comparatively large quantities of wine and brandy were made at the various missions, but the demand being limited to the domestic consumption, no encouragement, as in commercial countries, stimulated the production beyond the ordinary wants of the coast. With the discovery of gold in 1848, the great influx of white population rapidly increased the demand for wine, and enhanced its value as a product so that the vineyards then planted became exceedingly profitable to their owners, who, thus encouraged, engaged still more largely in the cultivation of the grape. As the wine won favor among consumers, the new settlers in the State became aware of its great value as a product, and soon citizens, natives of all countries, were interested in grape culture, until, at the present time, the vines producing fruit number many millions, soon to be doubled by others now planted, but not yet in a bearing state. Next to the raising of small grain for food purposes, wine-making is now the most profitable agricultural resource we possess, and unless a large accession of population, engaged in other agricultural pursuits, should soon be made, the increase in the number of bearing vines and their fruit, will make it take the lead among the products of the State. Under these circumstances, the exportation of wines and brandies to the Atlantic States, and other markets, must eventually become very large, and it is expected that the quality of both shall be of such excellence and purity as to defy competition from abroad.

The samples of wines and brandies in the Fair were by no means of that extent that the importance of the interest called for, and it is to be hoped that, when another similar opportunity offers, wine makers, generally, will find it to their interest to make such a display of their vintages to the public as shall properly represent so vast and growing an interest of the State. To make up, however, as it were, for the lack in the number of samples, the wines exhibited this year were, with very few exceptions, superior in quality, as a collection, to any before exhibited.

ON WINES, CORDIALS, ETC.

Committee:

J. J. HARKNESS, S. P. CHRISTY, JAMES IRWIN.

Tokay Wine, exhibited by John Sweet, was awarded a first premium.

Port Wine, exhibited by James McCaffrey, was awarded a first premium.

White Wine, exhibited by the "United Anaheim Association,"—Awarded a first premium.

Red Wine, exhibited by Isaac B———, was awarded a first premium.

Pure Juice of the Grape, exhibited by S. Brannan, was awarded a first premium.

Madeira Wine, exhibited by Mathew Keller, was awarded a first premium.

Sherry Wine, exhibited by Mathew Keller, was awarded a first premium.

Angelica Wine, exhibited by B. D. Wilson & Son, was awarded a first premium.

Burgundy Wine, exhibited by B. D. Wilson & Son, was awarded a first premium.

Wine Bitters, exhibited by Mathew Keller, was awarded a first premium.

Whisky Bitters, exhibited by I. D. Thompson, was awarded a first premium.

California Brandy, by B. D. Wilson & Son.—Awarded a first premium.

In awarding premiums to the above, the Committee would especially recommend the producer of port wine for furnishing a remarkably superior quality of wine.

ON LIQUORS, ALE, BEER, AND CIDER.

Committee:

S. P. CHRISTIE, G. J. BYRNE, JAMES IRWIN, P. J. O'CONNOR.

The Committee, having examined the various samples of Bourbon and rye whiskies exhibited in the Fair, award the first premium to I. D. Thompson, for the best Bourbon whisky, known as the "lily" brand.

The Committee also award a first premium to J. Sajous, for the best California brewed "half-and-half."

ON COMPOUNDS AND CALIFORNIA INVENTIONS.

Committee:

I. ROWELL, M. D., R. BEVERLY COLE, M. D., WM. H. KEITH.

The liquors, punches, tonic bitters, cordials, &c., prepared by V. Squarza, are, without, exception, the finest article in their line the Committee have ever examined. All of Mr. Squarza's preparations have these great merits over other compounds of a similar character:

1st. That none but the best and purest liquors are used.

2d. That no sugar, syrup, or sweetening principle is ever used, except that obtained by the maceration of sweet fruits, hence the nutricious principles contained in the fruits are also imparted to the "punches."

3d. That the flavoring materials are also obtained by macerating the various fruits, flowers, plants, and herbs which contain them, instead of using the ordinary expressed essential oils.

The great skill of Mr. Squarza consists in his ability to blend harmoniously, and in due proportion, the various materials used, so that there are none wanting and none in excess. Some of his preparations are medicinal, and deserve especial and favorable mention.

"*Selene*," a cordial, as its name would indicate, is a ladies' drink, and, no doubt, will be found as beneficial as it is agreeable.

"*Aurora*" is a most delightful tonic bitter, infinitely more agreeable and healthy than those villainous compounds usually taken as an appetizer in the morning.

The "Raspberry Cordial" contains the astringent principle of that plant in a marked degree, while it has all the agreeable flavor of the fresh, ripe fruit. It is an excellent article for the summer complaints of children.

The "Tea," "Coffee," "Cocoa," "Anti-Divorce," "Ladies' Pleasure," "Ladies' Tears," and "Strawberry Cordial" are all most delightful beverages, from which it would be difficult to select one in preference to another.

The harmonious blending of colors please the eye; the scientific distillation and admixture of the perfumes of sweet flowers please the sense of smell; and the harmonized sounds of music fall upon the ear and delight the sense of hearing. The same law holds good in regard to a combination of different flavors to please the palate, and Mr. Squarza has, doubtless, struck an octave higher than any one else in his playing upon the "organ of taste." The Committee, in view of these several facts, feel it incumbent upon them to commend the claim of these preparations exhibited by Mr. V. Squarza, and, believing them to be the best articles of their kind extant, have no hesitation in recommending them for the highest prize.—Awarded a diploma.

ON SILK WORMS AND THE CULTURE OF SILK.

Committee:

HENRY F. WILLIAMS, SAMUEL TYLER.

The Committee on these subjects have endeavored to perform the duty designated, but regret their inability to do full justice to the important trust confided to them.

Their especial attention was called to the exhibition of silk-worms and cocoons, by L. Prevost of San José, who has, in the opinion of the Committee, most successfully demonstrated that California is one of the best, if not the very best silk producing country in the world. They have learned to their own satisfaction, not only from those who know something of Mr. Prevost's operations in this line, but, also, from personal observation during a visit to his cocoonery in San José, that Mr. Prevost is justly deserving of the highest premium the Institute can award him, for the commendable zeal and perseverance he has exhibited under the greatest difficulties, in successfully inaugurating this new branch of industry in our State. The demand, both for silk and silk-worm eggs, is so extensive and constantly increasing, that the business cannot be overdone, but its successful prosecution must, in time, give employment to many thousands of our people, with a net profit of millions of dollars annually.

Mr. Prevost's simple narrative of his early efforts and drawbacks was exceedingly interesting to the Committee, and they induced him to commit to writing some of the leading facts, together with some remarks by Mr. Hentsch, which are hereby submitted, in the hope that they may not be lost or forgotten.

The Committee deem themselves not over sanguine of the great results to flow from the introduction of this important branch of industry into our State, when they hope and believe the day is not far distant when a gratified people will, through their Legislature, offer some public recognition of the services rendered by Mr. Prevost.—Awarded a gold medal.

FACTS ON SILK IN CALIFORNIA.—BY L. PREVOST.

After I had passed a summer in California, I came to the conclusion that it was one of the very best countries in the world for raising silk, as well as wine, etc., etc., but the difficulty was to obtain, first, mulberry trees, and, afterwards, silk-worm eggs. In 1863 or '64. I had occasion to meet with Mr. Henry Hentsch, who had the same opinion of our beautiful climate, and its adaptability for silk cultivation, and he, himself, began a conversation on that important subject. From that conversation was born the culture of silk in California. Mr. Hentsch imported the mulberry seed from France, from which I raised a number of fine mulberry trees. Mr. Hentsch was informed as soon as the trees were of some size, and he made arrangements to import silk-worm eggs from China. They arrived here dead—it was impossible to hatch one of them. The following year he imported another lot from the same place, and with the same result. After this second attempt I was a little discouraged, finding that it was impossible to import the eggs in good condition, and expecting to have no use for my mulberry trees, I had the most of them destroyed, keeping only a few.

The third year, Mr. Hentsch imported eggs again from the same place, and at the same time, from France. I was then very sorry to have destroyed so many of my mulberry trees, as the eggs from France proved to be in good condition, and hatched out very well. At that time I had a friend here, Mr. Miller, who was a competent silk cultivator, to whom I showed the eggs. He pronounced them good, and also agreed, for the first time, to help me, which he did. The worms did well, and produced fine cocoons of silk of the first quality, as I can prove by certificates from the two highest silk societies in Europe, to whom silk and silk cocoons had been sent to be tested.

Up to this time we have not been able to discover any indications of disease, which is most extraordinary; it must be the good influence of the climate of California operating as we expected. As I had no other room for the purpose, I have been obliged to raise the worms in a green house, which was extremely hot in daytime, and nearly freezing at night. Under such unfavorable circumstances, not one worm would have lived in Europe. Now, any thinking man can judge what success we might reasonably expect if we had a proper room in which to raise them.

The first year I made silk was in 1860. I sent boquets of cocoons and silk to about every fair all over our State; they attracted the attention of visitors, but I received no encouragement. On the contrary, I heard many say that this culture could not be pursued profitably in California, on account of the *high price of labor*. I was aware of the apparent truth of this before I attempted the production of silk, but I thought for this kind of labor Chinese might be employed, who are used to the work, and, besides that, I knew that the price for *buying* three or four acres of land here does not exceed the price of *renting one* acre in Europe, where silk is raised in large quantities. This advantage, I expected, would more than compensate for the difference between the price of labor in Europe, and Chinese labor here, because the silk grower in Europe has to deduct from his profits the rent of the land every year. But the question of labor is now fully settled, and silk can be raised in California with great profit. Calculating on the great superiority of our climate, I thought to try to take advantage of it, and I have succeeded in simplifying that culture even beyond my expectation. One man here can raise and take care of as many

silk-worms as eight men can do in Europe. As my mode of culture is adapted to the climate of California, I propose to call it *California Silk Culture*. It could by no means be employed either in France or Italy, where they have rains during the season of feeding, but might be used in any place where there is a climate similar to this.

The culture of silk in California is so simple that any one may understand it. It is easy work, and can be done by quite young persons, either male or female; the ladies, therefore, may have the pleasure of raising their own silk.

It will be a great pleasure to me to have contributed something towards the retention in our State of the millions of dollars that are paid out for the single importation of silk. Not only may we raise silk for our own consumption, but we can, in California, raise silk for the world, and export it. This article must increase in value; this year it is increased twenty-five per cent in price in Europe. It is an article in which we need not fear competition; we need not be afraid to see our neighbor raising it, because, if nearly everybody was raising it all over the State, it would not lower the price two cents per pound. This year, when the price of fruits is exceedingly low, allows us to show the advantage of the mulberry over fruit trees as the fruit must all be consumed within a certain time or it is lost, which is very far from being the case with the silk.

I have been engaged in my experiments in California silk culture three years, and this year raised over one hundred thousand cocoons.

Several gentlemen have made large plantations, so as to pursue this business hereafter on a larger scale. Among them I can name Mr. A. Packard, and also Mr. Q. Goux, of Santa Barbara, who have planted three thousand mulberry trees, and Mr. Glessing of San Joaquin Valley, whose plantation dates from last year.

Besides what may be done with the silk, we have a constant demand for eggs by the European culturists, as there they have the disease, and to insure a crop have to get their eggs from countries where the disease does not prevail. By not using sound eggs their crop is very much exposed; but, besides all that, and all they can do, in their best years their losses are generally twenty-five per cent, sometimes fifty per cent, and, in very bad years, as high as seventy-five per cent. Here we suffer none of these losses, and, as there is nothing to cause disease, every worm makes a cocoon. This also merits some reflection and consideration in favor of the superiority of our climate. It would be quite too long to enumerate everything in our favor, but I cannot help remarking that the principal point is that the mulberry tree grows here most luxuriantly, and I believe, also, that our virgin soil produces leaves of the best quality. In order that every one may be able to raise his own mulberry trees, I have published a treatise on the culture of that tree, both by seeds and cuttings, in the "California Farmer," and also in the French paper. It is calculated that an ounce of silk worm eggs contains forty thousand; I have produced several millions of eggs this season, and they were all sold at the rate of ten dollars per ounce, to be sent to France, and those for years to come are engaged for the same house. If I had them by hundreds of pounds I could sell them immediately. The eggs are in great demand, also, for Mexico; I had an order for that country for 500 ounces, but, of course, was unable to fill it. The largest order I had was for *one hundred pounds*, for Italy, and when I received that order I had only three ounces to sell. All this shows that in the future, besides supplying a large export demand for silk, we will also have to export largely of eggs.

The variety of mulberry to cultivate to obtain the best quality of silk is the white mulberry (*morus alba*), and its varieties, particularly the *moretti*. As to the *multicaulis*, I would recommend it only when the worms are very young, but not afterwards. The feeding of the worms continues only thirty-two or thirty-four days when they make their cocoons, and twelve days after that they come out butterflies, and lay their eggs for the following year. They have to be kept in a cool, dry cellar to prevent them from hatching.

Each female is expected to lay about three hundred eggs. Three hundred good cocoons weigh about one pound, and an ounce of eggs can produce one hundred and sixty-five pounds of cocoons; twenty-eight ounces of selected cocoons give two ounces of eggs.

REMARKS OF MR. HENRY HENTSCH.

The memorandum of Mr. Prevost contains valuable and correct information about California silk culture. The main point on which the report must attract the attention of the community is this, that California has one of the best, if not the very best climate in the world for producing silk successfully, on account of the absence of rains and storms during the months of May, June, and July, which, prevailing in Europe, kill millions and millions of silk-worms annually.

The second point is, that it does not require any capital—or, at least, very little—merely the purchase of the mulberry trees, which may be planted around the farms, cottages, and country residences.

The shade of the mulberry tree is as good as the shade of the cotton-wood tree, and the fruit is very good for poultry. When the trees have grown up, the children and women may start in the silk trade, as it requires only the labor of gathering leaves to feed the worms, and that occupation takes only six weeks. It would be useless to go into further detail, as the practice is ten times more valuable than the theory. There are in California a great number of Italians and Frenchmen who understand the silk raising business, and it will be very easy to have information and directions when wanted.

The point to be first attended to is the planting of mulberry trees, which involves but a trifling expense for the present, and may prove of very great value in a few years.

ON AGRICULTURAL AND HORTICULTURAL PRODUCTS.

Committee:

J. A. HOBART, C. W. HAM.

The following awards were made by the Committee:

D. E. Hough, Oakland, for the largest display of fruits, consisting of fifty-three varieties of apples and one hundred and eight varieties of pears, and a variety of plums, crab apples, etc.—Awarded a diploma.

Dan. L. Perkins, Oakland, for his fine assortment of California grown seeds and excellent display of fruit.—Awarded a silver medal.

F. Despois, for his exhibition of thirty-three varieties of fine grapes.—Awarded a first premium.

Matthew Keller, for exhibition of four bales California grown tobacco and three cotton plants.—Awarded a certificate of merit. Mr. Keller is an applicant for the State bounty of $1,000 offered for the first one hundred bales of cotton grown in California by one person, and the samples exhibited were from a patch of 110 acres grown by him near Los Angeles. Mr. Keller was awarded a gold medal by the Institute for his enterprise in striving to secure the above named bounty from the State.

Jared Runyon, Sacramento River Ranch, exhibited five plates of apples and eleven plates of pears of magnificent appearance.

F. Brown, Onisbo, Sacramento river, exhibited twenty-five Gloria Mundi apples, the whole weighing thirty pounds.

B. N. Bugbey, Natoma Valley, El Dorado County, for a box of California raisins, cured in 1864.—Awarded a diploma. The Exhibition being held in August, was too early in the season to admit of Mr. Bugbey exhibiting raisins of this year's curing. The sample exhibited of 1864 curing was in good order, and showed by its admirable keeping qualities that California might, not only supply the home demand, but could produce large quantities for export, whenever circumstances shall warrant an extension of the business in that direction. Mr. Bugbey will make some 10,000 pounds of raisins this season.

R. B. Woodward, exhibits five bunches of Black Hamburg grapes, of superior excellence, grown under glass, at the Mission Dolores, and twenty-nine plates of pears, grown at Oak Knoll, Napa County.

Simeon Statas, Sacramento river, for a fine display of hops on one vine, was awarded a certificate of merit.

Daniel Flint, Sacramento, exhibited three extraordinarily large bunches of hop flowers.

J. G. Dow, Russian River Valley, exhibited corn stalks fourteen feet high, and loaded with ears of corn.

C. H. F. Hildebrand, exhibited rhubarb, lettuce and potatoes grown from imported seed.

C. W. Weston, Pacific Market, exhibited a basket of samples of fruit, beautifully arranged.

E. F. Peck, Watsonville, Santa Cruz County, and J. Runyon, Sacramento river, exhibited enormous squashes, grown by them.

F. Ferris, San Lorenzo, Alameda County, exhibited five mammoth cucumbers.

Jewell's Vermont Dairy exhibited two cheeses of fine appearance.

E. R. Thurber, Solano County, exhibited two bunches of flame-colored tokay grapes of very superior appearance.

ON FLOWERS.

Committee:

MRS. J. G. HARDING, THOMAS BENNETT.

The following-named parties were awarded certificates of merit for collections of flowers and plants displayed during the Fair:

Mrs. Richards, for keeping a table supplied with hand-bouquets.

Mr. John Ross, an amateur florist of Oakland, for the best collection of cacti.

Messrs. Collie & Stewart, for a fine and continuous display, during the Fair, of about two hundred species of plants.

Mr. James Lick, for a fine show of twenty-five varieties of China Asters.—Awarded a diploma.

P. Nolan, Belle View Nursery, Oakland, for a fine display of Gladiati, and a number of rare cut flowers.

Col. Walker, Golden Gate Nursery, for a very great variety of rare plants, bouquets wreaths, emblems and cut flowers.

ON GROCERIES.

Committee:

MRS. HENRY L. DAVIS, R. E. ROWLAND.

In this department are some of the most important manufactures of the Pacific coast, which give employment to many hundreds of persons, and thereby cause the retention of a large amount of capital, and its profit, in our midst. Prominent among these is the refining of raw sugars by the San Francisco and Pacific Sugar Company, which is capable of supplying the entire demand for refined sugars on the Pacific coast of the United States. In this refinery sixty-five thousand pounds of raw sugar are used daily, the result of which is some sixty thousand pounds of refined sugar, of different grades, which have no superior in quality from any refinery in the world. Besides the refined sugar, there is produced a large amount of syrup, which, in this market is preferred to any imported. In the various departments of this refinery, there are two hundred and twenty-five men employed. The Bay Sugar Refinery Company of this city made no exhibit, but it is known to produce large quantities of refined sugars and syrup. All the raw sugars are imported, but it is to be hoped that, in time, California will supply the sugar required, as she possesses a soil and climate said to be well adapted for the successful raising of it. In this particular there seems to have been exhibited an apathy remarkable for so energetic and enterprising a people, but few trials having been made, and those mostly by inexperienced persons, whose labors, not being directed aright, have thus been thrown away. Could the demand for raw sugars for domestic consumption be supplied by our own people, additional employment would be given to many thousands of persons, while, between the value of the sugar produced, and the enhanced value of the lands producing it, many millions of taxable property would be added to the assessment rolls of the State. Certainly, in view of the great results to be obtained, it would seem to be the imperative duty of the various agricultural societies, that have from time to time drawn support from the State treasury, to make some persistent, practical efforts to inaugurate the raising of sugar. Where the fig, orange, lemon, olive, and almond thrive without protection, the successful culture of the sugar cane may reasonably be hoped for. It is by the success of such great agricultural products that the permanent prosperity of the State will be secured, as importing and manufacturing interests alone are liable to great and injurious depressions, which check and disheaten the energies of a people. Among other important manufacturing interests is that of manufacturing adamantine candles, which is now being engaged in by Wm. H. Scoville & Co., of this city, who have exhibited at the Fair very good specimens of their own make. The large extent of tunnel and quartz mining throughout this State and adjacent territory which get their supplies of candles through this city from the Atlantic States, would seem to afford a field of enterprise tempting and lucrative enough for capital to largely engage in. Considerable difficulties, however, have existed to prevent the successful inauguration of this branch of manufacture up to the present time, but it is to be hoped that better opportunities will now occur for its successful prosecution. One great drawback to the extensive manufacture of candles in this State has been the scarcity of lard, our agricultural population not having given the raising of swine that prominence in their business which it intrinsically deserves. While, on the one hand, they declaimed about hard times in their business—which undoubtedly at times was true—on their own part they have not striven to produce many articles which they might have done, the supplying of which would have lessened the drain of treasure that is constantly going on to pay for importations. Competent parties, familiar with the importation of candles at this port, estimate the amount at over half a million of dollars annually. When to this is added the consumption of lard oil for many purposes, and of which over 3,000 barrels have, within the last year, been transferred (by the admixture of mutton tallow here) into an article termed lard, and the large amounts of pork, bacon, and lard imported, it swells the total that could, as well as not, be saved by farmers to the State, to from $1,200,000 to $1,500,000 per annum. It is not within the province of this Committee to go outside of the sphere of duties assigned them in making their report, but they trust that the suggestions made above may be well considered, and thereby prove of service. Another production, which by its excellence has driven the imported articles out of the market, is the manufacture of vermicelli, maccaroni, and kindred edible pastes, all of which are manufactured in this city.

Extract of Coffee exhibited by Zwick & Lowen, of San Francisco.

Macaroni, Vermicelli and Italian Pastes. exhibited by Brignardello, Machieavello & Co, San Francisco. The articles exhibited were of most excellent quality, and the committee awarded the exhibitors a silver medal.

Ground Coffee and Spices, in glass and paper, exhibited by J. Strelitz, San Francisco. A very fine assortment of excellent quality.

Ground Coffee and Spices, exhibited by C. Bernard, San Francisco, which for superiority were awarded a first premium.

Sugars and Syrups, exhibited by the San Francisco & Pacific Sugar Refining Co. This company made a splendid exhibit of refined sugars and syrups of their manufacture, which were awarded a silver medal.

Sauce for Meats, exhibited by P. B. Comins, which was a fine article. Awarded a diploma.

Bacon and Hams, exhibited by Wm. Dick & Co. These smoked meats were of fine appearance and most excellent flavor, equal, in the opinion of the committee, to any heretofore exhibited. Awarded a diploma.

Fine Salt, exhibited by Plummer & Co, San Francisco. Awarded a first premium.

Dairy and Table Salt, exhibited by A. B. Winegar, agent, Union Salt Works, San Francisco. Awarded a second premium,

Adamantine Candles, exhibited by Wm. H. Scovillo & Co., San Francisco. Awarded a silver medal.

Soap and Soap Powders, exhibited by the Standard Soap Company, San Francisco. This Company exhibited samples of excellent soap for family, laundry and toilet uses. They also exhibited a concentrated erasive washing powder, which, by the addition of water, forms at once an excellent quality of soft soap. Awarded a first premium.

Soft Soap, by Miss Maggie Conghlin, San Francisco, one tub soft soap, home-made from table scraps—a most excellent article of its kind. Awarded a certificate of merit.

ON MATCHES.

Committee:

ANDREW S. CHURCH, JOSHUA HENDY, GEO. S. DICKEY.

This portion of the Fair was well represented by the "Excelsior," "California," and "Eureka" Match Companies, all indicating commendable progress in this branch of California industry.

The committee found about equal merit in the articles exhibited by each of the above competitors, but think the "Eureka" company justly entitled to the first premium in this division for variety and finish. Awarded a first premium.

5 shs Yellow Jacket at 380@382½ per ft, b 3
1 sh Yellow Jacket at 385 per foot, b 30.
5 shs Chollar-Potosi at 234 per foot, b 10.
11 shs Chollar-Potosi at at 234@233 per ft.
6 shs Chollar-Potosi at 234 per foot, b 3.
20 shs Daney at 8 per foot.
1 sh Belcher at 178 per foot.
24 shs Ophir at 340@345 per foot.
4 shs Alpha, G. H., at 280 per foot.
9 shs Overman at 41@42½ per foot.
45 shs Sierra Nevada at 7½@8½ per sh.
10 shs Wide West at 7 per share, s 30.
77 shs Imperial at 117½@115½ per share, c.
10 shs Imperial at 116½@115½ per sh, s 5.
10 shs Imperial at 112 per share, s 30.
10 shs Bullion at 32¾ per share.
$8,500 Legal Tender Notes at 71c.
$20,000 National Bank Notes, 70¾c.
$15,000 National Bank Notes, 70¾c, b 5.

AFTERNOON SESSION.

1 sh Savage at 710 per foot.
1 sh Savage at 705 per foot, s 10.
2 shs Savage at 695 per foot, s 30.
1 sh Savage at 707½ per foot.
2 shs Savage at 700 per foot, s 10.
1 sh Savage at 690 per foot, s 30.
13 shs Savage at 700 per foot, s 30.
3 shs Savage at 705 per foot.
2 shs Savage at 700 per foot, s 15.
2 shs Savage at 720 per foot, b 30.
2 shs Yellow Jacket at 385 per foot.
1 sh Yellow Jacket at 376 per foot, s 30.
1 sh Yellow Jacket at 377½ per foot.
1 sh Yellow Jacket at 375 per foot, s 10.
2 shs Yellow Jacket at 376 per foot.
2 shs Yellow Jacket at 370 per foot.
3 shs Yellow Jacket at 370 per foot, b 3.
3 shs Yellow Jacket at 365 per foot.
3 shs Yellow Jacket at 370 per ft, s 5.
4 shs Hale & Norcross at 370 per foot, b 2.
2 shs Hale & Norcross at 375 per foot, b 3.
2 shs Hale & Norcross at 375 per foot.
4 shs Hale & Norcross at 372 per ft, b 2.
2 shs Hale & Norcross at 372½ per foot.
4 shs Gould & Curry at 800 per foot, s 60.
10 shs Chollar-Potosi at 233 per foot.
51 shs Imperial at 115@114½ per share.
5 shs Imperial at 118 per share, s 3.
15 shs Imperial at 114@113 per share.
10 shs Imperial at 110 per share, s 30.
7 shs Imperial at 112½@112 per share.
5 shs Imperial at 110 per share, s 15.
1 sh Imperial at 111 per share.
1 sh Imperial at 110 per share, s 5.
10 shs Confidence at 43@44 per share.
10 shs Lady Bryan at 1¾ per share.
5 shs Exchequer at 8¼ per share.

Amount of sales.....$158,993 00

Thursday, January 25.

12 shs Ophir at 335 per foot.
13 shs Savage at 705@685 per foot.
1 sh Savage at 700 per foot, s 5.
3 shs Savage at 700@680 per foot, s 10.
5 shs Hale & Norcross at 385@380, s 3.
22 shs Hale & Norcross at 372½@350 per ft.
10 shs Hale & Norcross at 360@345, s 10.
11 shs Yellow Jacket at 360@365 per foot.
3 shs Yellow Jacket at 350 per foot, s 30.
3 shs Yellow Jacket at 360 per share, s 3.
8 shs Yellow Jacket at 365@355 pr ft, b 3.
3 shs Yellow Jacket at 350 per foot, s 10.
1 shs Belcher at 160 per foot.
1 sh Chollar-Potosi at 234 per foot.
45 shs Overman at 40@41 per share.
5 shs Overman at 40 per foot, s 10.
30 shs Imperial at 109@107 per share, s 30.
87 shs Imperial at 111@109 per share.
35 shs Imperial at 109@110½ per share, s 3.
8 shs Imperial at 111 per share, b 30.
10 shs Imperial at 108 per share, s 15.
58 shs Bullion at 32@32½ per share.
40 shs Bullion at 32@32¾ per share.
40 shs Bullion at 30 per share, s 30.
20 shs Exchequer at 8¾ per share.
10 shs Sierra Nevada at 7¾ per share.
$20,000 Legal Tender Notes at 71@70¾.

AFTERNOON SESSION.

3 shs Yellow Jacket at 340 per foot, s 10.
5 shs Yellow Jacket at 340 per foot.
1 shs Yellow Jacket at 339 per foot, s 30.
2 shs Yellow Jacket at 345 per foot, b 3.
2 shs Yellow Jacket at 335 per share, s 10.
1 sh Yellow Jacket at 360 per foot, b 30.
3 shs Yellow Jacket at 340@335 per ft, s 3.
1 sh Savage at 690 per foot, s 30.
2 shs Savage at 710 per foot, b 30.
2 shs Savage at 690 per foot, s 10.
4 shs Savage at 685 per foot, s 30.
7 shs Savage at 680 per foot, s 30.
1 sh Savage at 690 per foot.
1 shs Savage at 697½ per foot.
4 shs Savage at 695 per foot.
1 sh Savage at 685 per foot, s30.
3 shs Belcher at 155 per foot.
1 shs Belcher at 157½ per foot0.
2 shs Belcher at 160 per foot.
2 shs Hale & Norcross at 365 per foot.
4 shs Alpha, G. H., at 265 per foot, s 3.
4 shs Alpha, G. H., at 278 per foot, b 30.
12 shs Ophir at 335 per foot.
12 shs Ophir at 350 per foot.
30 shs Exchequer, at 6 per share.
4 shs Imperial at 110½ per share.
8 shs Imperial at 110 per share, s 3.
8 shs Imperial at 109 per share, s 10.
10 shs Imperial at 108 per share, s 30.
5 shs Imperial at 111 per share, s 3.
5 shs Imperial at 111½ per share.
40 shs Imperial at 110 per share.
5 shs Imperial at 110½ per share, s 5.
15 shs Imperial at 112 per share, b 30.

Amount of sales.....$126,346 00

Friday, January 26.

6 shs Savage at 695@700 per foot.
12 shs Yellow Jacket at 345@350 per foot.
1 sh Yellow Jacket at 355 per foot, b 30.
6 shs Yellow Jacket at 345@350 per foot.
4 shs Yellow Jacket at 350@345 per ft, s 30.
4 shs Yellow Jacket at 355@350 per foot
6 shs Hale & Norcross at 367@372 pr foot.
4 shs Hale & Norcross at 380 per foot, b 30.
24 shs Alpha, G. H., at 240@250 per foot.
6 shs Belcher at 165@160 per foot.
12 shs Crown Point at 580@610 per foot,
70 shs Imperial at 111@110 per share.
10 shs Imperial at 109 per share, s 30.
12 shs Gould & Curry at 820@815 per foot.
4 shs Gould & Curry at 800 per foot, s 30.
45 shs Chollar-Potosi at 232@233½ per foot.
40 shs Chollar-Potosi at 234 per foot, a 30.
45 shs Ophir at 325 per foot.
35 shs Overman at 40@39 per foot.
45 shs Bullion at 39@40 per share.
10 shs Sierra Nevada at 7¾ per share.
10 shs Spring Valley W at 67½ per cent
$12,000 Legal Tender Notes at 70½c.

AFTERNOON SESSION.

40 shs Gould & Curry at 850 per foot, s 30.
7 shs Yellow Jacket at 350 per share.
4 shs Crown Point at 610 per foot.
36 shs Belcher at 155 per foot.
22 shs Hale & Norcross at 380@405 per foot.
1 sh Chollar-Potosi at 232 per foot.
7 shs Savage at 695 per foot.
2 shs Savage at 700 per foot, b 30.
20 shs Bullion at 38 per share.
20 shs Exchequer at 6½ per share.
10 shs Sierra Nevada at 7¾ per share.
60 shs Imperial at 109@109½ per sh, cash.
45 shs Imperial at 111@112½ per share.
60 shs Imperial at 112½ per share, b 10.
35 shs Imperial at 114 per share.

Amount of sales,.....$119,384 00

Mining Summary.

CALIFORNIA.

CALAVERAS.—The Stockton *Independent* says that the Campo Seco Copper Mining Company shipped from the mine, during the year 1865, 1,902,501 pounds of copper ore. The Taunton Copper Smelting Company, whose works are located at Campo Seco, and have been in operation during the past forty-three days only, have within that time shipped 193,605 pounds of copper regulus. T. R. Anthony, a member of the company, kindly furnished the above figures. From the 1st to the 8th instant, inclusive, seventy tons of ore have been shipped from the Campo Seco mine, to this city, at a cost of $7 per ton for freight. In a day or two, the company expect to load a barge with ore for San Francisco.

The same paper says that last week five tons and ninety-eight pounds of smelted copper, from Haskell's furnace on the Buchanan lead, at Chowchilla, Mariposa county, arrived at the wharf in this city, and there are two large wagon loads on their way from the mine. This metal is almost pure copper, containing at least ninety per cent. of the genuine material. We understand that J. B. Meader will test a portion of it immediately. Those interested in this mine, and others in the same district, will undoubtedly be pleased to learn that such an evidence of the wealth of that locality has been produced. The indications warrant the belief that the district will prove quite as rich as any yet discovered in the State.

The amount of copper ore shipped from the Keystone mine, Copperopolis, during the year 1865, was 2,828,881 pounds, as shown by the books of R. B. Parker & Co. At the rate of $8 per ton, the freight from the mine to this city amounts to about $11,315. Of the above quantity of ore 2,599,845 pounds are rated as first-class, and 229,036 pounds at second-class.

The Calaveras *Chronicle* of the 15th instant says that Austin & Hathaway, of Brushville, have sold a quartz mine, located near that place, to some San Francisco capitalists, for $75,000. The purchasers have taken possession and will at once erect a first-class mill on the claim. The mine is one of the richest in the county, the lode being wide, well defined, and easily worked. There are, doubtless, others in the vicinity equally valuable, but for want of capital the owners have not been able to thoroughly prospect their claims.

A correspondent of the *Chronicle*, writing from West Point, says that on the 10th inst., some Mexicans struck a lead of gravel about a mile from town, near "Valentine Hill," which prospects from one to four bits to the pan. Unfortunately their claim lies above both ditches and cannot be worked except by carting; otherwise they would have ounce diggings.

On the same day, Wilson & Keys struck a continuation of the celebrated Henry lead, near Skull Flat, which prospects much better than the original location on the same ledge. The lucky discoverers were offered one thousand dollars for their claim the next day after they struck it, but, to use their own language they "couldn't think of it."

A correspondent of the same paper writes from Campo Seco, as follows:

As regards placer mining here, there has been little done this winter on account of the scarcity of water. We have reason to hope, however, that this state of affairs will be remedied shortly, as a preliminary survey has already been made for a *new ditch* to come from the north side of the Mokelumne river. This ditch will cross the river by means of a pipe laid on a wire suspension, and will carry water almost as high on our hills as there is any mining done. If this undertaking succeeds, we can turn out as much gold as any camp of our population in this county. We have a good deal of ground left here, which, with steady water at moderate prices will pay from three to four dollars per day. The reason this ground has not been worked heretofore, is that the Mokelumne Hill ditch company have not had water to spare, as they have always had good markets for their water nearer home.

Quartz.—The quartz claims of Messrs. Syme & Adler are daily improving in appearance; the rock prospects well, and in a short time we may expect to see those gentlemen have as good a thing as generally falls to the lot of mortals. The prospects of Messrs. Spencer, Lonnevig & Co., continue favorable, although the late rains have set back work a little on account of their shaft not being covered, but they are getting ready to resume operations immediately.

The Campo Seco company have struck, in their lower level, a large vein of very fine ore, which they are getting out so fast that they hardly know what to do with it. This claim is efficiently managed by an estimable gentleman, D. L. Morrow, Esq., than whom few more genial or whole-souled men can be found.

On the Lancha Plana copper claim work is going on briskly on contract, and every one feels sanguine that the energetic proprietors of this mine have a prosperous future before them. It is their intention to put another engine on their upper shaft as soon as spring opens, and if enterprise and energy command success, the above company are certain of reward.

KLAMATH.—The Klamath *News* says a mine which assays $3,000 in gold, and is besides rich in silver, has been discovered in Dillion township. The exact locality in which the mine was found "is at present a secret." The finder wishes to "feather his nest" by further discoveries, before he opens the door for a rush of eager "prospectors."

A Chinaman working on Six Mile Creek, a tributary of Salmon river, picked up, one day last week, a nugget of pure gold weighing twenty-five pounds. The lucky rascal immediately left for the Flowery Empire. It is the largest piece ever found in the county.

TRINITY.—The *Journal* says that the prospects for a glorious mining season in Trinity county have not been so good in ten years. At last accounts the snow was from two to five feet deep on Trinity, Brown's, Hay Fork, and Bush Creek mountains, and ten feet on Scott's mountain. It is a foot deep in Weaverville Basin.

PLUMAS.—The correspondent of the Quincy *Union*, from whose letter we have already largely extracted, communicates further information of the mines in this county as follows:

The Round Valley or Ellis ledge is situated in Round Valley, some three miles from the lower end of Indian Valley. This mine was located by John W. Ellis & Co., in 1860. In 1861 Mr. Ellis leased a portion of his ledge to Mr. E. W. Junkins & Co., who erected a fine steam quartz mill on it, and expended large sums of money in opening the ledge. The mine has changed hands several times; it is now in the hands of Hon. M. D. Howel, one of the ablest and most efficient quartz miners in our county, under whose superior management it is destined to be very valuable property.

The Crescent mill is situated on the west side, near the lower end of Indian Valley. This mine was located by Messrs. John W. Pulsifer and Jas. A. Blood & Co., in 1862. It is about three miles southeast of Round Valley, and is one of the best paying mines in the State. In the winter of 1862–3, Mr. Wm. A Bolinger opened the mine and erected a 24-stamp steam quartz mill upon it. In the summer of 1865 this company erected another mill, with a capacity of 32 stamps, which, together with the old mill, now gives them a capacity of 56 stamps. Their weekly dividends are now enormous.

The Indian Valley mill is situated between the Crescent mills and Greenville; there is during the summer and fall months a scarcity of water to supply this mill, and from this cause the present owners have not been able to realize the large dividends from their mine that the richness of their rock would warrant them in expecting. Mr. John N. Blood is largely interested in this mine and mill, and is, we believe, the President of the company.

The Lone Star mill, situated at Greenville, was erected by Messrs. Waterworth & Co., and is now owned by Messrs. H. C. Bidwell & Co. It is, beyond doubt, considering the amount expended in the erection of machinery, etc., and its limited capacity to crush rock, one of the best paying mills in this State. This company works rock taken from the McClellan ledge, and the amount of their dividends plainly show the value and richness of their ledge.

Premium mine, lying on the opposite side of Indian Valley from the Crescent mills, is supposed to be a continuation of the latter ledge. It was located by some parties as early as 1862, but lay in an undeveloped state until within the last year and a half, when it fortunately fell into the hands of its present enterprising owners. Since March, 1865, we we have been informed, this company have expended over $20,000 in developing it. A short time ago the company had 300 tons of their rock crushed at the Crescent mills, as "a working test," from which they realized over $9,000, clearly establishing the richness of their mine beyond a peradventure. Messrs. W. A. Bolinger and R. C. Chambers are the principal owners.

The Pennsylvania company's mine is situated east from Greenville, adjacent to the McClellan ledge, and is owned by Messrs. Trucks and Waterworth. It is said to prospect very rich, and the indications warrant the belief that it is also extensive. The enterprising owners of this mine are now erecting a large quartz mill, which is nearly completed. The mine was located in 1864.

Calahan's ledge was located in 1863, is in the neighborhood of the Pennsylvania, and is owned by its original discoverer, Hon. C. W. Calahan, who has, with untiring patience, unaided and alone for nearly three years, continued to work on this mine, getting it opened and prospected, and now he has the consolation to know that his labor was not in vain; for having gotten into his ledge, he finds it rich and extensive, and that he has now laid the foundation for a splendid fortune for himself.

The Camanche mine is situated near the Calahan claims, and is owned by Capt. N. C. Cunningham & Co. This mine is not yet fairly opened or thoroughly prospected, but from every indication, its lucky owners have good reason to believe that it will prove one of the richest among the very rich and productive mines of this locality. This mine was discovered and located in 1865.

The Abbott ledge, situated near Greenville, was discovered also in 1865, by Squire H. B. Abbott & Co., and bids fair to be a most valuable mine. There are also the Louisiana, Golden Gate, Flora Glazier, Kitts, Kettle, and a great number of other auriferous quartz mines in the localities above named, many of which are now being opened, and which may prove as rich as any yet discovered.

The Bull Frog mine and Quartz mills are located on the head waters of Bull Frog Creek, a tributary of Rush Creek, about four miles from Round Valley. This mine is likely to become paying property whenever it will be worked to advantage, and by experienced quartz miners.

In fine, this section of Plumas county is destined some day, not far hence, to become one of the very richest quartz mining localities in California.

SIERRA.—We learn from the *Messenger* that the Masonic Company, at Star Hill, have lately been taking out big dirt. For five days' drifting, they recently took out one hundred and ten ounces of dust.

The Union Company, at Unionville, have commenced running their mill again, with a prospect of keeping it tramping, their ledge being opened to the extent of six months' run on first quality rock, and we may expect to hear of big runs if only one half the truth he told. The rock is of bluish tint, with fine rich sulphurets and much large coarse gold.

The *Advocate* says that a contract for running a new tunnel for working the Wheeler ledge, just above town on the North Fork, has been let to Messrs. Parks & Co., by Mr. Holmes, general superintendent. Eight dollars per foot is the price paid for completing the same. The Company intend to erect a new and commodious mill the coming season, for working the rock of the Empire claim.

McFarlan and Baldwin, we understand, took out fifteen dollars as the result of one day's labor from their claim, one day last week. One pan of dirt yielded two dollars and fifty cents. The Empire has been extensively mined since '50.

TUOLUMNE.—The *Democrat* states that certain agents of San Francisco capitalists are visiting Tuolumne county with the view of purchasing quartz mines.

The Sonora *Herald* says that Professors Blake and Silver have lately been examining the mines in Tuolumne county.

AMADOR.—The *Ledger* says that a cinnabar mine has been discovered near "Two Cent Ranch." A correspondent of the *Ledger* writes from Volcano that Mr. J. M. Hanford has commenced operations on the old abandoned Pioneer mine. This mine has been worked several years and until about three years since, when the owners supposed they had exhausted it; but as now appears, they had only run off the lead. Mr. Hanford having examined the matter thoroughly, bought the mine and has commenced the task of developing it. This mine always paid well so long as they had quartz. No doubt is entertained but what the real lode will be found. The once prevailing idea that silver mines never run out and that gold mines did, has been entirely exploded. This country, and this county in particular, has demonstrated the fact to a certainty that quartz gold mines never run out. Many deep mines in this county, and some are to a depth of one thousand feet, demonstrate the fallacy of quartz gold mines running out; and it is universally the case, the deeper down on the vein the more gold is found in the quartz. There are places, or spots, in all quartz veins where the quartz does not appear on the surface. These spots, or places, vary in extent from a few feet to perhaps a mile; but it is certain that wherever paying quartz has been found on or near the surface that the vein at that particular spot never runs out.

The rock in the Golden Gate mine is very rich. They have a new 10-stamp mill just completed and running. It is thought by good judges that they will make the biggest "clean up" ever made in the county. The extensions, both north and south of the Golden Gate lode, have been located, and the parties are only waiting favorable weather to prospect them.

Another correspondent from Pine Grove says that rich discoveries in quartz are daily being made known in that section of the county.

The Tellurium Company have struck very rich rock in their main tunnel. They have been for a long time running along side the lead, when about two weeks ago, they ran a side drift, and discovered a rich lead about four feet wide.

Messrs. J. F. Donahar and J. W. Ballard have struck a rich quartz lead; they have a number of hands at work and the prospects are said to be really good. This is called the best quartz mining district in the county.

The miners of this place have been holding meetings here for the last month, making laws to govern the Pine Grove District—a new District that has lately seceded from the Volcano District.

VIRGINIA CITY AND VICINITY.

The Virginia *Enterprise* gives the following interesting items concerning the number of men employed in the mines at Gold Hill, and the amount of ore daily extracted: The Bullion mine employs at the present time twenty-eight men in and about the mine. No ore is being taken out at this time. The Exchequer mine employs twenty men; are extracting no ore yet. The Alpha mine employs fifty men, and is taking out seventy-five tons of ore per day. The Imperial mine employs seventy-five men, and is taking out 150 tons of ore per day. The Empire mine employs forty-nine men, and is taking out sixty-five tons of ore per day. The Eclipse mine employs twenty-seven men, and is taking out forty tons of rock daily. The Consolidated mine employs thirty-eight men, and is taking out ten tons of ore per day. The Challenge mine employs forty-eight men—taking out fifty tons of ore per day. Confidence mine employs forty-one men, who take out fifty-five tons in twenty-four hours. The Yellow Jacket Company, with a force of 180 men, hoist out 175 tons daily; but a portion of the men are employed in the new works, and are not yet taking out ore. Eleven men are at work in the Kentuck mine, taking out about ten tons per day. Crown Point mine brings to the surface daily seventy-five tons of ore, employing seventy-five men. In addition to these are several small mines—the Bacon, Bowers, Burke & Hamilton and others—employing about seventy-five men, and taking out some 100 tons of ore daily. Thus the mines of Gold Hill—leaving out those at work in the mills—employ in the aggregate 717 men, extracting 950 tons of ore daily. At $30 per ton this amounts to $28,500 per day and $855,000 every month.

The Pacific mill, at Virginia City, owned by the Alpha Company, will shortly be started up on ore from the lower level of the Company's mine, where good developments have lately been made.

The Mariposa mill is being renovated and put in good working order. The capacity of the mill has been increased from sixteen to twenty tons per day. New Wheeler pans will take the place of those used heretofore.

The Bullion mine is at present putting in another section of pump, which will make a third lift, and which will pump the water from a depth of 675 feet.

A piece of quartz about the size of a hen's egg, which is nearly half gold, has recently been taken out of the Imperial mine, Gold Hill, at the depth of 600 feet below the surface.

REESE RIVER.

It appears from the quarterly returns of the Assessor of Lander county, which includes Austin and vicinity, that there were 1,276 tons of rock mined and crushed in that district during the quarter ending January 1st, 1866. The several crushings yielded from $32, the lowest, to $359, the highest yield per ton. Forty-four companies are reported; eighteen of which exceeded a yield of $100 to the ton, and twelve others that of $75, leaving only fourteen to fall below $75 to the ton.

The *Reveille* says that the very rich plumbiferous ores of Washington District are about to receive the attention they deserve. Experiments, by Señor Alvares having fully proven that a smelting process can be profitably adopted, it is the intention of parties interested to secure the services of some practical and thoroughly competent person to put up the requisite furnaces and superintend the management of the same. If such a plan is carried out, there can be no doubt but that the movement will give a great impetus to a certain class of mines in that region which cannot be worked by the wet process generally in use.

The Ware mill now under the superintendence of J. W. Varney, has been set in operation, and is reducing ore from the Silver Chamber mine.

Mechanical.

THE WINANS' "CIGAR BOAT" NOTHING NEW.

About the time of the breaking out of the Rebellion, the country was told that the brothers Winans, two wealthy gentlemen of Baltimore, were about commencing the construction, in that city, of a steamboat on a novel principle. It was called, from its peculiar shape, the "cigar boat"—the hull being formed of a cylinder, or cylinders, running to a point at each end, much like the shape of a cigar. If we are not mistaken, a small model boat was constructed and placed upon the bay, and preparations were in a state of forwardness for the construction of one of large size. The rebel proclivities of these brothers, however, and their attempted open aid of the rebellion, soon rendered their absence from the country essential to the safety of their persons. They accordingly crossed the ocean and took up their residence in London, where they soon resumed the project, and again laid the keel for another boat, the successful launching of which has recently been announced by the English papers. The point sought to be gained by this new method of construction is speed; and there is little doubt but that the end will be accomplished, but at the expense, however, of capacity, convenience of arrangement and cost of construction.

A "cigar boat," however, is nothing new. The idea originated with a Col. Burden, of New York, some thirty-five years ago, who constructed a boat, with the machinery and upper works placed upon two hollow, cigar-shaped cylinders, each 300 feet long, with the greatest diameter at the center, and measuring about eight feet. The taper of the cylinders was a regular parabolic curve from the center to a point at each end. The cylinders were placed parallel to each other, sixteen feet apart, with a single wheel thirty feet in diameter, working in the center. The engine and boilers were built under the direction of Rev. Dr. Knott, of Troy, N. Y. She was built in New York, and her first trip was made, we believe, to Troy, just above Albany. During this trip she accomplished the then unheard of speed of *twenty-one* miles an hour, against the current! This, it should be recollected, was at a time when the highest authenticated rate of speed of a steamboat had not exceeded *fourteen miles* an hour. We believe she made one or more trips to Providence, Rhode Island. What ever became of her, we know not. Our impression is that, for some reason or other, she was found impracticable, probably for the reasons already intimated. Her advent, however, appears to have opened up a new era in steam navigation, by inducing steamboat men to pay more attention to speed in the construction of their boats. She was followed soon after by the ill-fated "Lexington," which was burned on Long Island Sound in the winter of 1840–41. The Lexington was one of the first of the swift class of boats, constructed on a modification of the old models. Her rate of speed, if we mistake not, nearly or quite reached that of Col. Burden's boat; while her model being, in the main, a mere elongation of the "tubs" which had been in use up to that time, was much more serviceable and convenient than that of the "steam raft," a designation which was given to Col. Burden's boat by some of his competitors.

One of the earliest of the improved model Sound boats, was the "Providence," built and for many years run under the direction of the late Peter F. Ewer, of Nantucket. This boat, after making a few trips, was found not to answer the expectations of the projectors. She was therefore hauled upon the "ways," sawed in two at the center, lengthened some forty feet, and provided with a false bow which projected a considerable distance beyond her original build. When again launched, she was able to out-distance any of her competitors. From this time out, the tub-shaped boats began to go out of date. Col. Burden, in endeavoring to carry this principle of lengthening out the hull to its *ne plus ultra*, instead of building a boat so narrow that she could hardly stand erect, contrived a *pair* of boats, by which he was relieved from all danger of capsizing, while he was able to *elongate* to his heart's content. He probably overshot the mark, and the Winans' brothers are repeating the same blunder; albeit their efforts are greatly astonishing the Johnny Bulls over the water.

Col. Burden's experiment was repeated either the same year or the next one subsequent, by a Mr. Sanford, of Prescott Harbor, Upper Canada. Mr. Sanford endeavored to introduce some improvements, hoping thereby to overcome the difficulties encountered by Mr. Burden. This experiment was on a smaller scale—his cylinders being only about half the length of Col. Burden's, while their greatest diameter was one foot larger, and instead of being round, they were slightly flattened on the bottom; the design being to run in very shallow water, and pass through the rapids between Prescott and the "Cedars." Her speed and general behavior, on trial, did not answer the expectations of her projectors, who, therefore, did not feel justified in making the hazardous attempt to pass the "rapids." This boat, also, appears to have subsided into obscurity; at least *we* have no knowledge of her, subsequent to her trial trip. We believe she is the only connecting link between Col. Burden and the Winans' brothers.

NEW INVENTIONS.

The Magnesium Light Made Practical.—It is stated in the English papers that a literary gentleman, who has been for some time a secretary or amanuensis of Mr. Carlyle, the newly-elected Rector of the University of Edinburgh, has just invented a lamp for burning magnesium, of a character so simple and effective that all the mechanicians are astonished. It is one of those happy ideas that seem inspired, and that at the same time make everybody wonder they had not thought of them. The magnesium is reduced to a fine powder, then mixed with sand, it runs through a tube as from an hour-glass, and when lighted by a match, a brilliant and steady flame is produced, until the reservoir is exhausted. It is said that all the difficulties of using this light for streets, public buildings, light-houses, and so on, are overcome by this device.

An Instrument for Detecting Fire-damp in Mines.—A very ingenious and simple instrument has recently been invented for this purpose by Mr. Ansell, of the English Mint. Its action depends on the tendency which exists in gases and vapors to diffuse themselves through each other, notwithstanding the interposition of membranes or porous substances, etc. It consists of a small brass cylinder, one inch and a half long, and three-quarters of an inch internal diameter, and of a piston working freely within. Under the piston, and within the cylinder, is a spring, which, when pressed by the sinking of the piston into the cylinder, moves a hand upon a dial on the outer case—which has a plate of porous earthenware at the back. When this instrument is brought into an atmosphere containing coal gas, the latter passes through the porous plate, and the air within the case being expended, the piston is forced into the cylinder to an extent which is indicated on the dial. Taken out of impure air, the effect will be reversed, and the index will move on the dial in the opposite direction, the exact amount of purity or contamination being indicated. It is clear that the instrument might easily be made to set a bell ringing, or give some other notice of danger from the presence of an explosive atmosphere. So far as trials of it have been made, it seems to work satisfactorily.

A Valuable Invention, Probably.—It is said that a "Cotton-Picking Machine" has been invented in the Atlantic States, which, it is believed, will eventually prove almost as valuable to the cotton interest as the "gin." If this invention should accomplish all that is claimed for it, it could not have been made at a more opportune moment, and we might almost say the freedman's occupation is wholly gone.

A Ship's Fire Alarm.—A curious invention has been put to practical test on board a British frigate, at Portsmouth, England, which is designed to give instant notice of fire on shipboard. It consists of a small galvanic battery placed in the captain's cabin, with an indicator dial-plate and alarm-bell, having twenty insulated wires communicated with as many numbered sections of the ship. Calorimeters are connected with the extremity of each wire, in its separate section, so that as soon as the temperature of either section reaches a point of dangerous heat, such as would be produced by approaching spontaneous combustion or actual ignition in the near vicinity, the electric circuit is completed, an alarm-bell set to ringing violently in the cabin, while the hand of the indicator points to the number on the dial-plate, corresponding to the section in the ship where the dangerous heat has been generated. The existence and proximate locality of the fire are thus known at once. The calorimeter consists of a small metal vessel, some three inches in length, three-fourths filled with mercury. The outside of the vessel is in contact with one part of the copper wire of the section, the other part being suspended through the stopper in the neck of the vessel, the distance between the latter part of the copper wire and the mercury being regulated according to the temperature considered dangerous. Should this latter event ever occur, the mercury necessarily expands, and, bringing the end of the wire in contact, the circuit is completed. A slight modification of the same arrangement also gives notice when the water finds its way above the proper level in the ship's bilge. This arrangement is to be placed on board of all transport ships in the British navy, and will probably soon be still more generally introduced.

A Steam-Carriage on Ice.—The Lake Superior *Mining Journal* describes a new invention by C. C. Elliott, of the Railroad Company's Machine Works, at Escanaba, which consists of a small steam-carriage, designed to run upon ice. It is an ice-car, built something after the form of a dummy railroad-car, but resting upon double sets of bob-sleighs, instead of wheels, at each end. In the center of the car is a wheel something like a cog-wheel, which runs upon the ice, and propels the car. It is steered by a properly-constructed wheel in the rear. The carriage has been designed as an experiment, and will be tried upon Green Bay this winter. The carriage is said to weigh only about 800 pounds.

More About Titanic Iron.

Since the publication in England, of the successful experiments with titanic iron, as noticed by us two weeks ago, a writer in the London *Mining Journal* states that the excellent qualities of the Russian, Swedish, and Norwegian pig-iron, made from magnetic iron ore in charcoal blast-furnaces, are derived solely from the not inconsiderable amount of titanium which the iron ores from Miask and Nischneitagilsk in Russia, Danemora in Sweden, and Arendal in Norway, contain a quality which renders it particularly adapted for the manufacture of steel and very strong wrought-iron. Although not much titanium combines chemically with the pig-iron itself, it acts undoubtedly as a very powerful purifier in the blast-furnace, and if used in the proper way, even with rather inferior ores, it improves the quality of the iron in a wonderful manner; far more so than manganese would be able to do. The introduction of iron ore which contains titanium in the mixture of ordinary blast-furnaces for the production of finery iron will, undoubtedly prove a great success. The writer in the *Journal* says there is no need to go to New Zealand for titanic iron ore; as it exists in large quantities in the south of Norway, containing nearly double the percentage of titanic oxids which is found in the New Zealand sands. It is thought that this ore can be delivered in England much cheaper from Norway than from New Zealand. Is it not a little remarkable that the attention of iron-masters has not been directed to this matter at an earlier day? or has it just been discovered, even by the Swedes and Russians, that the superiority of theirs over English iron has been due to the presence of this well-known mineral in the ore which they employ? We believe this description of ore has not yet been discovered, in any considerable quantity, within the limits of the United States—perhaps, however, because attention has not been particularly directed to it.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

Office of the Mining and Scientific Press—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the Mining and Scientific Press. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on prosecuting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian, Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inventors of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensue. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforhand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to favor us with their cases, and are qualified facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved in the most plain manner.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as soon as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos	$10
On every application for a design, for seven years	15
On every application for a design, for fourteen years	30
On every application for a patent, for seventeen years	15
On every caveat	10
On issuing each original patent	20
On filing a disclaimer	10
On every application for a re-issue	30
On every additional patent granted on a re-issue	30
On every application for an extension	50
On the granting of every extension	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C.	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No. 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for inventions can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.
SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.
SAN FRANCISCO, Jan 11th, 1866.

San Francisco:
Saturday Morning, Jan. 27, 1866.

A MINING AND AGRICULTURAL COLLEGE.

Among the most important acts of the late Miners' Convention at Sacramento, was the good degree of unanimity displayed in favor of the establishment of an Institute in this State having for its object the teaching of the sciences bearing upon the two great leading pursuits of mining and agriculture. In furtherance of this project, a series of resolutions were adopted recommending that the Legislature proceed at once to the establishment of a "Mining, Agricultural and Mechanical College." The alacrity and unanimity with which the agriculturists have come forward, and united with the mining interest in the furtherance of this movement, even to the sacrifice of what may be considered their own more especial claims upon certain grants and funds, available for such purposes, cannot fail to elicit from our mining friends a high appreciation of the generosity displayed in that act. It is to be hoped that the movement so nobly inaugurated, may lead to a still closer union of the two interests, each of which in this State is so peculiarly dependent upon the other.

At some future time we propose to discuss the benefit which the agriculturist must derive from such an institution. It is our present purpose, however, to speak more particularly to our mining readers.

The importance of the establishment of schools on the Pacific Coast for instruction in mining is now pretty generally admitted, so much so that it is scarcely necessary that we should stop, at this time, to discuss that portion of the subject at all; and we shall chiefly confine our remarks in the present and perhaps one or two future numbers, to the character of the instruction which should be rendered.

In conversation with gentlemen who have had much experience in European mines and mining schools, previous to coming to California, we have been told that even the most experienced and skillful miners from that continent need a local education here—they find it necessary to introduce certain modifications into their European practice and education, which are indispensable to the altered condition of things here from what they have been accustomed to encounter there.

Gentlemen who are sending their sons to Paris, Freiburg, etc., to obtain a knowledge of mining engineering and metallurgy, will find on their return that our varied resources, increased cost of labor and material, peculiar character of machinery and different habits of thought, will render nugatory to a great extent, the application here of the practical portion of their European education. The theory, of course, is the same everywhere. The character of the machinery employed here is most essentially different from that employed there—and in almost every particular is greatly improved.

Our stamping mills, for instance, are a long way in advance of the same class of machinery there. Any person who is acquainted with the stamps in use in both localities, must admit this fact. The revolving stamp, unless quite recently introduced, is unknown there. Almost every particular with regard to the construction of the stamp, mode of discharge, etc., has been improved in California, until our batteries are now doing nearly or quite double the duty, per head, of those employed in Europe.

Again, our admirable pan system is entirely unknown in Europe, the nearest approach being the Hungarian bowl; and when we contrast the cumbrous German steam engine with the light and effective engines used in California and Nevada, we must set down our Teutonic friends as full half a century behind us.

Our hoisting machinery, for the depth we have gone, is decidedly superior to the generality of that employed in Europe. Our safety cages are greatly improved over those, elsewhere employed, in lightness, effectiveness and safety. We have heard it stated by competent judges, of foreign birth and education, too, that some of our best hoisting works, such as those employed at the Yellow Jacket, Savage, Gould & Curry, etc., are capable of extracting double the amount of ore raised at any mine on the European continent.

In our efforts at "progress," we may at times have overstepped the bounds of economy, and accomplished a large amount of work at considerable unnecessary waste of mineral; but we have gained largely in experience.

In the metallurgy of silver, though our experiments were at first attended with heavy losses, we have now arrived at a point at which we can learn but little from European schools, that will be applicable to our local peculiarities and necessities.

In the assaying branch of metallurgy we are somewhat at fault—in analytical chemistry, in particular, we freely yield the palm to European Professors; but as practical assayers we claim a full equality with either our German or English cousins.

In relation to underground engineering, our miners are not as thorough as they should be; but this deficiency arise more from our national character of go-ahead-ativeness—our care for the present only, at the expense of the future—than from a lack of knowledge for thorough work. With respect to subterraneous surveying, the German miner's dial, a sample of which may be seen at Sack's, 203 Montgomery street, would indicate that the Freiberg schools have made but little progress for the last half century at least. The most indifferent of our mountain county surveyors would not use such an instrument.

As we are writing at this time in favor of an agricultural as well as a mining school, it may not be out of place here, to allude to the universally acknowledged fact that our European friends are most sadly behind Americans in the practical departments of agriculture. As a proof of this we need only to point to the records of our patent office, and call attention to the contents of our agricultural warehouses, filled with mowing and reaping machines, threshers, steam ploughs, etc., a class of mechanical appliances almost unknown in Europe, where agriculture was carried on for centuries before America was discovered; but whose fields, even to this day, are chiefly supplied with American machinery.

From the above facts may be adduced the most unanswerable arguments in favor of the establishment of an American school, where young American men may be taught the use and employment of American machinery, and where such ideas may be instilled into the minds of students, as will not have to be *unlearned* before they can put their theories into practice.

The students of both agriculture and mining will find a larger and better field for practical instruction at home, than it will be possible to reach in Europe. Let us then found, nourish and build up on our own soil, an Institute for instruction in those sciences, which shall be adapted to our peculiar local needs, and educate our young men at home, instead of spending thousands of dollars abroad, much of it for that which must be unlearned when they get into actual practice. We have much to say upon this subject, which we shall endeavor to give, from week to week, so long as the subject of the establishment of a California Mining and Agricultural College shall be under discussion before the Legislature.

IMPROVEMENT IN THE PHOTOGRAPHIC ART.

From the first introduction of the photographic art to the present time, it has ever been the constant study of the artist to improve in their efforts to impart a more life-like aspect to their pictures of the human face. Much has already been accomplished in years past; but we have never seen a greater advance in this direction, apparently at one step, than has recently been made by Messrs. Bradley & Rulofson, as exhibited in some admirable pictures recently produced by them, and now on exhibition at their gallery, 429 Montgomery street. All artists have been painfully cognizant of the fact of the difficulty of obtaining a good picture of persons who are not possessed of fair complexions, or who may possess even the slightest imperfection of countenance. In the ordinary processes all such imperfections are unavoidably exaggerated. By the peculiar action of the rays of light, even a *faithful* picture is unattainable, and recourse is had to artificial coloring and re-touching, which, in the best hands, is but a bungling imitation of what Messrs. Bradley & Rulofson are, by their improved process, enabled to accomplish by the unaided pencil of light.

So far may this process be carried, that even nature may be eclipsed, and the wheels of time rolled back by the steady and guarded action of the rays of a single day's sun. Under the skillful direction of these gentlemen, the action of the rays of light alone is made to wipe out "spots" and harsh shadows from their pictures, to remove the wrinkles of age, and give freshness and beauty to the face and *contour*, wherever that has once existed in the original. Much of this may appear impossible, and would be so to us had we not seen the evidence, and, to a certain extent, learned the process by which it is accomplished; which is nothing more than an ingenious application of some of the simplest principles of optics. Our readers are all aware of the superiority of the stereoscopic picture over the ordinary photograph; we believe we are giving no clue to their secret when we say that every one of Bradley & Rulofson's improved pictures consist of a separate stereoscopic representation of every mathematical point on the entire surface of the picture, blended in one harmonious whole, in such a manner as to bring out the object with a beauty of finish, roundness of feature, and life-like expression, totally unattainable by any other process known.

ANALYSIS OF THE WATER OF MONO LAKE.—On page 210 of volume 10, we gave a full description of Mono Lake, with some account of the peculiarities of its waters. This description was furnished us by Mr. J. R. Murphy, now superintendent of the assay office of the National Bank at Austin, Reese River. Mr. Murphy has recently furnished the Reese River *Reveille* with the following analysis of this water: Quantitative—Chloride of sodium, 5.854; chloride of potassium, 1,581; chloride of calcium, 2.630; chloride of magnesium, 8.206; sulphide of calcium, traces; sulphate of lime, 0.402; sulphate of magnesium, traces; solid contents, 17.637—in every 100 parts. Qualitative—(only) for the acids present, showing—Hydrosulphuric acid in abundance; Carbonic acid in abundance; Boracic, strong traces; Phosphoric acid, slight traces; Silicic acid, slight tracee.

THE AMERICAN FREEDMAN'S COMMISSION.

It is much to be regretted that any portion of the California press should be found treating with levity the efforts in behalf of the great national philantrophic movement, now under the direction of the "American Freedman's Commission." With the exception of the immediate necessities of active campaigning, during our late terrible war, the world has never presented such a necessitous field for active and earnest philanthropy as is embraced in that occupied by this Commission. It is not a work sought out by officious philanthropists, as a field in which to exhibit their humanitarian efforts; but it is a great, home fact, thrust upon the American people by the "logic of events," and they will richly earn the scorn and contempt of the world if they ignore it. Sympathy for the *colored* race is not, *de facto*, its foundation—the bed-rock upon which action, by those not in sympathy with that race, may reasonably be founded, is the welfare and protection of the white race at the South. Crushed by the fortunes of war, irritated by a complete revolution in their social condition: peace has naturally enough found them, as a people, neither able in purse or disposed in temper to control the disorganized social element by which they are now surrounded. It would be less than human for the people of the North to refuse, in such a crisis, to lend a helping hand in their deep distress; and the man who would turn honest, well-directed effort in such behalf to ridicule, would laugh at the direst calamity which could befall his neighbor. No work of such a vast scope can be carried on without union of effort, and well arranged machinery. To a great extent the same men are engaged in this work who have acquitted themselves with so much credit and fidelity in the great Sanitary Commission, the necessity of which has now passed away. So far as the public are informed, all engaged in this new work are men of unimpeachable reputation; and they should be sustained by all the aid and encouragement which a generous and humanity-loving public can bring to bear.

In this connection, we would call attention to the announcement that there will be a meeting of the friends and members of the Freedmen's Aid Commission for this coast at Platt's Hall, on January 29th, in the evening of that day, for the purpose of publicly inaugurating the officers, and ratifying the measures heretofore taken for the organization of the association here. Honorable Cornelius Cole, Hon. A. A. Sargent, Rev. Horatio Stebbins, Rev. Jesse Peck, Dr J. F. Morse, Gen. John F. Miller, F. Billings, Esq., and Hon. Thompson Campbell, will address the meeting.

THE PANAMA MAIL STEAMSHIP CO.'s steamer Sacramento leaves this city on Tuesday next, to connect at Aspinwall with the Company's splendid new steamer Henry Chauncey for New York. Passage rates are as follows: First cabin, outside, and ladies' saloon rooms, $210; first cabin, inside rooms, $162 25; second cabin, $99 75; steerage, $72 50. This Company have now their own boats running through to New York, and passengers will hereafter be relieved from the intolerable impositions so often practiced upon the other side.

EXTENSIVE LAND SLIDE.—The Nevada *Gazette* is informed that an extensive slide occurred near the South Yuba, a few nights since. A quantity of earth, about a hundred feet in width and three hundred in length, became loosened, and slid from near the top of the hill into the river, carrying down large trees, etc. The slide crossed the road in one place, filling it with loose earth, but fortunately not injuring the grade.

ANTIMONY AND ITS ORES.—We have received several inquiries with regard to the nature of antimony. In answer we would say that the *present* price of antimony in Europe is about $125 per ton. The demand for it, however, is quite limited, and not sufficient to justify any advances upon either the metal itself or its ores for shipment from this State. It has no price, in quantity, in this city.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	DAY OF SALE.
Animas, Durango, Mex., 40c		Feb 3	Feb 19*
Agawam, Nyo co., $1		Jan 13	Feb 8*
Apache Chief		Annual Meeting, Jan 27	
Arbirtos, Chihuahua, Mex., $1		Feb 3	Feb 15
Adams, Petroleum, $5		Jan 11	Jan 25
Alpha, Storey co., Nev., $50		Jan 18	Feb 17
Blue Ledge, Lander co., $1		Feb 3	Feb 19*
Blue Ledge, El Dorado co., $1 50		Jan 13	Jan 27*
Bullion, $10		Levied	Dec 26
Bunker Hill, El Dorado co., $1.50		Jan 20	Feb 2
Consolidated Silver Hill M Co., Nov., $2		Feb 10	Feb 20*
Capitola, 20c		Feb 8	Feb 22
Capital		Meeting	Feb 6
Chipionema, Sonora, Mex., $5		Jan 27	Feb 7
Cassell, Nevada co., Cal., $5		Feb 10	Feb 26
Caledonia Tunnel, Gold Hill, Nev., $2		Dec 23	Feb 3
Chollar-Potosi, Storey co., Nev., $100		Jan 21	Feb 1
Confidence, Storey co., Nev., $25		Jan 22	Feb 6
Cosala, Sinaloa, Mex., $1		Jan 29	Feb 10
Diana, Lander co., Nov., $10		Jun 20	Feb 6*
Daney, Lyon co., Nev., $1		Jan 15	Jan 31
Dios Padre, Alamos, Mex., $2		Feb 2	Feb 14
Emerald Copper, $1		Feb 10	Feb 24
Elk Horn, Petroleum, 50		Feb 7	Feb 23
Exchequer, Storey co., Nev., $2		Jan 17	Feb 1
El Taste, Sonora, Mex., $2		Feb 26	Mar 10
Franco-Americana, Mex., 25c		Jan 26	Feb 9
Great Western Tunnel Co., Aurora, Nev.		June 27	Feb 10*
Geo Washington, Alpine co., $1		June 27	Feb 13*
Hanscom, Copper, Del Norte co., 15c		Feb 24	Mar 10*
Hornet, Lander co., Nev., $1		Jan 20	Feb 6*
Honest Miner, Lander co., 50c		Jan 13	Jan 29*
Hale & Norcross, Storey co., Nev., $25		Jan 15	Jan 29
Joe Lane, Lander co., 50c		Jan 13	Jan 29*
Jeffrey Oil, 50c		Feb 19	Mar 3
Kentucky Copper, Calaveras co., $1		Jan 20	Feb 7*
Lady Franklin, Alpine co., 50c		Jan 6	Jan 26*
La Victoire, Mariposa co., $2		Jan 3	Jan 22
Lady Bryan, Storey co., Nev., $1		Feb 5	Feb 16
London Quartz, 50c		Feb 29	March 10
Libertad, Sonora, Mex		Meeting	Feb 5
La Fernandez, Sonora, Mex		Sale	Jan 29
Mamaluke		Meeting	Jan 31
Nevada, Lander co., $1.50		Jan 13	Jan 29*
Napoleon, Calaveras co., $7		Jan 23	Feb 3
Nuestra Senora de Guadalupe, Durango, $1		Jan 27	Feb 11
New Idria		Meeting	Feb 8
North American		Sale	Feb 10
Nonpareil, $1		Feb 20	Mar 10
North American Tin co		Annual Meeting	Feb 7
Oxford Beta, Esmeralda co., Nev., 50c		Feb 17	March 3*
Owen's River Canal co., 40c		Feb 3	Feb 19*
Old Colony, Reese River, $6		Jan 14	Jan 27
Overman, Storey co., Nev., $10		Feb 9	Feb 25
Ophir		Adjourned Meeting	Jan 30
Peninsula, San Antonio, Lower Cal., $10		Jan 15	Jan 27
Refugio, Chihuahua, Mex., $2½		Feb 10	Feb 24
Rappahoe, Sinaloa, Mex., $2 50		Jan 17	Jan 31
Salamander, Calaveras co., Cal., 20c		June 27	Feb 10*
Santiago, Lyon co., Nev., $1		Jan 22	Feb 10
Sweet Vengeance, Yuba co., $1		Jan 20	Feb 6
Sierra, Douglas, co., Nev., $3		Jan 15	Jan 27
Shoshone, Lander co., Nov., $1		Jan 29	Feb 12
Santiago, Lyon co., Nev., $1		Feb 1	Feb 20
Sierra Nevada		Adjourned Meeting	Jan 27
Santa Cruz, Mex		Sale	Jan 30
Tuolumne Mountain, 50c		Feb 10	Feb 26
Tirita S M co., $3		Levied	Nov 25
Union Mattole, Humboldt co., $5		Jan 19	Feb 6*
Wide West, Alpine co., $3		Feb 3	Feb 21*
Yuba, Brown's Valley, $3		Feb 3	Feb 17*
Yankee Blade, Reese River, Nev., $15		Jan 13	Jan 29*
Yosemite, Humboldt co., Nev., $1.25		Jan 20	Feb 6*

*Those marked with an asterisk (*) are advertised in this ournal.

ASSESSMENT AND SALE LIST

OF CLAIMS IN

VIRGINIA AND GOLD HILL DISTRICTS.

CORRECTED WEEKLY FROM LATEST DATES OF THE TERRITORIAL ENTERPRISE.

[This list embraces Companies advertised in Virginia City papers, most of which are not incorporated or advertised in San Francisco.

Assessments Levied.

Name of Company.	Date of Levy.	Am't per foot
Alpha	Dec 19	200 00
Bullion	Dec 27	10 00
Caledonia	Dec 22	2 00
Chollar-Potosi	Dec 19	100 00
Confidence	Dec 21	25 00
California Consolidated	Jan 9	1 00
Globe	Dec 24	1 00
McMeans & Williams	Dec 19	25
North Comstock	Dec 19	25
Overman	Jan 9	10 00
Peck	Jan 3	1 00
Santa Rita	Dec 22	50

Delinquent Sales.

Name of Company.	Date of Sale.	Place of Sale.
American Basin	Feb 16	Virginia.
Almaden	Feb 9	Virginia.
Bullion	Jan 26	Virginia.
Belcher	Feb 15	Virginia.
Belcher, Baldwin & Abernethy	Feb 15	Virginia.
Gerceion	Feb 19	Virginia.
Hale & Norcross	Jan 29	San Francisco
Chollar-Potosi	Feb 1	San Francisco
Exchequer	Feb 1	San Francisco
Jewett	Feb 1	San Francisco
Kentuck	Feb 2	San Francisco
North American	Jan 20	Virginia.
McMeans & Williams	Feb 20	Virginia
North American	Feb 10	Virginia.
Sides	Jan 30	Virginia.
Utah	Feb 3	Virginia.
Union	Feb 5	Virginia.
Yellow Jacket	Jan 22	Gold Hill.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, January 27th, 1866.

The amount of capital offering for loan purposes shows no abatement, amply supplying the wants of all classes who can furnish the requisite security. A fair demand prevails in bank circles, and choice names are passing at 1@1¼ ₱ cent. per month, the latter being the current rate for the usual discounts made. In the open market negotiations are affected at 1½@2 ₱ cent., according to the collateral offering.

Receipts of treasure from the interior and north coast, since Saturday last, amounted to some $1,100,000, making an aggregate of $3,100,000 thus far during the current month. The yield of Nevada this month will compare unfavorably with a corresponding period last year.

Bullion has met with some inquiry this week, and gold bars have been taken to account by bankers and others, at 840@850. Silver remains unchanged, and bars of average fineness are worth about ½ ₱ cent. premium.

Legal Tenders have continued active, and some $160,000 were dealt in within a range of 71½@70½c, closing at about 70½c asked. Considerable sales of National Bank Notes have been made at 70¾@70½c. The latter are somewhat less desirable than Legal Tender Notes, for the reason that, although received by Government officials in this city, for taxes, etc., they are invariably refused by many parties for freights due here upon shipments of merchandise from the East. Our latest telegraphic advices from the East quote gold at 139½ on the 24th inst.

There has been a slight improvement in some mining shares during the week; but other stocks evinced less strength yesterday than at the close of last week. The ore product of a number of prominent claims continues fully up to the average of the past six months, with, however, a less flattering net result in bullion. In view of the fact that current expenses remain the same, if not larger than formerly, it would seem eminently proper at this time to introduce more economy in the management of different companies, if it be practicable under existing circumstances. Many stockholders are of the opinion that too much is paid for labor in Nevada, and that the pay rolls of every company should be materially reduced. Some contend, also that the services of a number of employees, other than laborers, could now be dispensed with without the least detriment to the interests of shareholders. It is thought that money could be saved if less prospecting were done for new bodies of ore, in ground giving no evidence of the existence of a mineral bearing lode, and that the enormous expenses incident to certain improvements under way, (without knowing positively that they will ever be used for the purpose intended), is likewise injudicious and unnecessary.

Gould & Curry rose from $810 to $835, then sold at $800, seller 60, and closes at about $800, seller 30. In drifting south a distance of 200 feet from the second station, in the D street shaft (600 feet from the surface), a connection has been made with the old works, at which latter point operations can now be resumed without any trouble from water. Receipts of bullion are likely to exceed $150,000 for January, not withstanding the company's mill made but half time during the first fifteen days of the month, and only one small outside mill has been employed.

Savage has been active, steadily advancing from $630 to $720, buyer 30, then selling at $695, and changing hands yesterday at $695. In all some 130 feet were sold at these rates. Recent crushings of ore at Land's and the Pacific mills, yielded respectively $36.75 and $34 per ton. We learn of no material change in this mine.

Crown Point rose from $525 to $610, and closes at $610. During the week ending January 19th, 435 tons of ore were raised to the surface, 235 of which came from the lower level. In the west stratum of the latter the north drift has extended 50 feet, and the south drift about 25 feet, showing good ore in both directions. The Birdsall & Carpenter, and the Pioneer mills (20 tons capacity per day each), have been employed, which will enable the company to reduce some 80 tons per day. The rate to be paid for crushing is $14 per ton.

Yellow Jacket has been dealt in to the extent of 300 feet, receding from $380 to $360, advancing to 427½, dropping to $335, rallying to $355, and closing yesterday at $350. The yield of bullion last week, we are informed, was some $21,000. Telegraphic dispatches state that the east wall of the ledge has been penetrated in drifting from the south shaft in the lower level, disclosing a body of quartz 15 feet wide, and carrying a small quantity of mineral.

Hale & Norcross has been in better favor, and more than 100 feet were sold, steadily advancing from $312½ to $372½, dropping to $362, and closing at $405. A seam of quartz, 3 feet wide, lying against the east clay wall, has been met with in the north drift from the 700-foot incline.

Ophir has been tolerably well maintained, rising from $320 to $345, receding to $335, and then selling at $330@325. Receipts of bullion from the 1st to the 20th instant, amounted to $36,000.

Empire Mill has met with no sales, but was inquired for at $210 per share; $240 asked. An average of some 65 tons of ore per day are now taken from this claim, chiefly from the upper or old works, most of which is yielding about $35 per ton.

Chollar-Potosi rose from $220 to $234, and sold yesterday at $233½ @$232. In the Grass Root station workmen have been employed recently in stripping down the west wall, and taking out the usual quantity of ore. The Bajazette ground is said to present the same appearance, and the stope over Pat's incline is producing about 30 tons of ore per day. The Chollar mine, between the 3d and 4th stations, is said to look remarkably well, and a winze sunk 34 feet on the east side shows good ore all the way down. The new shaft is timbered to a depth of 559 feet, and the drift to the ledge is in 157 feet upon that work, and in the mine 157 men are now employed. During the week ending January 19, 550 tons of ore were sent to custom mills; 51½ tons were sold at $3, and 8¾ tons at $5.

Alpha has attracted but little attention, and trifling sales were made, receding from $300 to $240, and closing at $235 bid. Belcher declined from $210 to $155, and sold at the close at $155.

Imperial rose from $100, seller 60, to $118 per share, declining to $116½, and selling yesterday at $111@113.

Bullion fell from $33 to $30, and then sold at $38, assessment delinquent. Overman rose from $37 to $42½, dropped to $39, and closed at $39. Confidence was sold within a range of $40 and $44, closing at $40 bid.

California Steam Navigation was sold at $62, and closed at $62 asked. North Beach and Mission Railroad was dealt in at $43½, Firemen's Fund at 122½, and Spring Valley Water company at $57@57½.

The aggregate sales of Stocks and Legal Tender Notes since Saturday last amounted to $759,926.

San Francisco Stock and Exchange Board.

SAN FRANCISCO, Jan. 27, 1866.

	Bid.	Asked.
United States 7 3-10ths	$ 71	$ 72
Gov. Legal Tender Notes	70	70¾
State Bonds, 7 ₱ cent	83	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	65	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	50	55
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	00	..
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	65	80
California Navigation Co	60	61
State Telegraph Stock	25	..
San Francisco Gas Co	104	105
Sacramento Gas Co	..	75
Spring Valley Water Co	57¼	58
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	44	45
Central Railroad Co	..	65
North Beach and Mission	44	45
MINING STOCKS.		
Ophir	$ 320	$ 325
Gould & Curry	820	825
Empire M. & M. Co	....	....
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	695	700
Chollar-Potosi	232	233
Hale & Norcross	370	375
White & Murphy Co	....	....
Sierra Nevada	7	8
Daney	..	..
Burning Moscow	..	..
Lady Bryan	..	..
Sacramento & Meredith	....	....
Burnside	....	....
North American	....	....
Baltimore American	....	....
Yellow Jacket	350	355
Overman	40	41
Cedar Hill Tunnel	....	....
Wide West	5	8
Crown Point	610	620
Antelope	....	....
Emeralda	1	5
Ætna	....	....
Real del Monte	..	15
Bullion, G. H.	30	40
Buckeye	....	....
Dick Sides	....	....
Imperial	108	109
Alpha	200	200

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	7 00 @ 7 25
Do Superfine	6 75 @ 7 00
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	2 25 @ 2 35
Oats, choice, ₱ 100 lb	1 90 @ 2 00
Barley, ₱ 00 lb	1 10 @ 1 15
Beans, ₱ 100 lb	3 50 @ 4 50
Potatoes, ₱ 100 lb	1 10 @ 1 35
Hay, ₱ ton	15 00 @19 00
Live Oak Wood, ₱ cord	8 00 @10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	9 @ 10
Hogs, dressed, ₱ lb	13 @ 14
Groceries, Etc.	
Sugar, crushed, ₱ lb	16 @ —
Do China	10 @ 12½
Coffee, Costa Rica, ₱ lb	— @ 27
Do Rio	26 @ —
Tea, Japan, ₱ lb	85 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	10 @ —
China do.	7 @ 8
Coal Oil, ₱ gal	@ 1 40
Candles, ₱ lb	24 @ 27
Ranch Butter, ₱ lb	55 @ 65
Isthmus do	35 @ 42½
Cheese, California, ₱ lb	20 @ 26
Eggs, ₱ doz	45 @ 50
Lard, ₱ lb	22 @ 23
Ham and Bacon, ₱ lb	25 @ —
Shoulders	20 @ 22
Soap—Pale & C. O	10 @ 12
Castile	@ 14

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	75@ —
do pickled ₱ lb	60@ 70
do Oregon	35@ 40
do New York, ₱ lb	45@ 55
Cheese, ₱ lb	25@ 35
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	60@ 75
Lard, ₱ lb	@ 25
Hams and Bacon, ₱ lb	28@ 30
Cranberries, ₱ gal	75@ —
Potatoes, sweet, ₱ lb	5@ 8
do Irish, ₱ lb	@ 2½
Tomatoes, ₱ lb	5@ 8
Onions, ₱ lb	4@ 6
Apples, No. 1, ₱ lb	4@ 10
Pears, table ₱ lb	3@ 10
Plums, dried, ₱ lb	15@ 25
Peaches, dried, ₱ lb	15@ 25
Grapes, ₱ lb	5@ 15
Oranges, ₱ doz	75@ 1 00
Lemons, ₱ doz	1 00@ 1 50
Chickens, apiece	75@ 1 00

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@ 1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	40 @—
American Pig ₱ ton	30 @40
Refined Bar, bad assortment, ₱ lb	3 @—
Refined Bar, good assortment, ₱ lb	3½@—
Boiler No. 1 to 4	4 @ 5
Plate No. 8 to 9	4½@ 6
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—

COPPER.—Duty: Sheathing 3½c ₱ lb, Pig & Bar 2½c ₱ lb.

Sheathing ₱ lb	.32 @34
Sheathing, Old	.20 @30
Sheathing, Yellow	.30 @—
Sheathing, Old Yellow	.12 @13
Bolts	.13 @16
Composition Nails	.30 @32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	.14 @15
Plates, I C Charcoal	.12 @13
Roofing Plates	.11 @ 12
Banca Tin Slabs, ₱ lb	.41 @42½

STEEL.—English Cast Steel, ₱ lb | 12½@16

QUICK-SILVER.—Per lb | —@65

For export	.55 @—

ZINC.—Sheets ₱ lb | 9½@10

LEAD.—Pig ₱ lb | 7 @ 8

Sheet	.10 @12
Pipe	.10 @12
Bar	9½@10

BORAX—California, ₱ lb | .20 @23

FIRST ARRIVAL.—The first arrival of goods at Salt Lake *via* the Colorado, has been reported—thus giving a practical demonstration of the feasibility of establishing such a course of trade.

THERE are now in existence no less than fourteen hundred and fifty-seven oil companies, with a total capital of eight hundred and sixty-nine million five hundred and ninety-four thousand dollars.

The Gold Hill *News* says the Gould & Curry mine employs two hundred and seventy men—of which number there are nine blacksmiths, one principal and three regular engineers, four brakemen, two firemen, and twenty-three carpenters. The mine produces three hundred tons per day for reduction, which is taken from three different places in the mine.

Mount Hood Again Burning.—On the 5th instant, according to the *Oregonian*, Mount Hood was again throwing out dense volumes of smoke. A gentleman who witnessed the eruption early in the morning, states that the horizon was red with the glare of light from the volcano about dawn.

Metallurgy.

MOSHEIMER'S CONCENTRATOR

RECEIVED THE FIRST PREMIUM

From the ROYAL POLYTECHNIC SOCIETY, in Cornwall, and was highly recommended by the Commissioners as the most Simple and Effective Concentrator for all kinds of Ores.

Every Quartz Mill ought to have them, as they not only save Gold and Silver, but also the Quicksilver and Sulphurets, without extra labor. They can be built entirely of wood at the mine, and will separate more perfectly in one operation, than any other Concentrator in use. Apply to

J. MOSHEIMER,

23v11qy 423 Washington street.

EUROPEAN METALLURGICAL WORKS,

—AND—

Practical Mining School,

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SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

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The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

S. P. Kimball, J. R. Murphy,
10v10

G. KUSTEL,

Metallurgist and Mining Engineer,

Stevenson House, corner Montgomery and California sts.

Ores Analyzed,

Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
20v11-3m

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Metallurgists and Mining Engineers

AUSTIN, NEVADA.

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Copper, Lead, Gold, Silver,

Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

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Agent for Townshend Wood & Co., Swansea,

No. 406 Calif rnia Street, San Francisco.
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MARTIN & CO.,

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We will make advances upon Ores of Copper.
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WILLIAM PENROSE,

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COPPER, SILVER, GOLD, LEAD

AND OTHER VALUABLE ORES;

Also Lead Bars Containing Gold and Silver,

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Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done.
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Professional Cards.

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The Patent Agency of the Mining and Scientific Press has been signalized with remarkable success during the past two years. The importance to the inventive genius of this coast of a thorough and reliable agency for the solicitation of Letters Patent from the United States and foreign Governments cannot be over-rated, and the Proprietors of the Press, feeling the responsibility which rests upon them, and the reward which must follow the faithful performance of their trusts, will take care to afford inventors every advantage to be secured to them through a competent and responsible agency upon this coast.

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Attorney and Counsellor at Law,

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Entrances opposite City Hall, Merchant street, and 636 Clay street. 14v11tf

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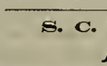

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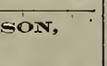

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[OVER SAN FRANCISCO BATHS]

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AND FOR THE

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A GENTLEMAN OF MUCH EXPERIENCE AS A MINing Superintendent, in England, Spain, and on the Pacific coast, and one intimately acquainted with every department of mining, and with nearly every class of mineral, is desirous of securing a position as Superintendent of some mining operation in California or Nevada. The applicant was for four years Superintendent of the New Almaden Quicksilver Mine, in this State. The best of reference given on application at this office.

San Francisco, Oct. 12, 1865. .5v11tf

A Business Compliment.

Petaluma, Oct. 4, 1865.

Messrs. Dewey & Co.—Gentlemen: Your note informing me that my patent for Crushing and Baling Machine is ordered to issue is at hand. Please accept my thanks for the prompt and business like manner with which the case has been conducted, and inclosed find twenty dollars for balance Government fees. Respectfully, etc.,

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Fire, Hydraulic and Suction Hose And Leather Belting.

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Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.

The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

OIL WELL BORERS.

A CONTRACT WILL BE LET TO A RESPONSIBLE party to sink an Oil Well, as deep as may be required, on land belonging to the "Eel River Oil Company," situated in Humboldt county, Cal. For particulars, inquire at the office of the Company, No. 436 Jackson st., up stairs. 12v11-1m E. H. WILSON, Secretary

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VERY FINE WATCHES FOR LADIES.

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HARTFORD FIRE INSURANCE CO., Asscts	1,500,000
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WASHINGTON INSURANCE CO., N. Y., Asscts	700,000
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No. 505 Clay Street, corner of Sansome.

Blanks for Mining Companies, Secretaries, Shareholders and others, always on hand, or printed to order, at our office.

Among others are those of the following forms:

Shareholder's Proxy.

Know all men by these presents, that I, ... do hereby constitute and appoint ..... my attorney and agent, for me and in my name, to vote as my proxy, at a meeting of the ..... Mining Company, to be held ..... 186 , according to the number of votes that I should be entitled to cast were I there personally present.

In witness whereof I have this day hereunto set my hand and seal. .....[Seal]

Dated 186

Assessment Notice.

..... Company

.....

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ..th day of ....., 186 , an Assessment of .....per share was levied upon the Capital Stock of said Company, payable on the ..th day of .....186 , in United States gold and silver coin to the Secretary.

Any stock upon which said Assessment shall remain unpaid on Saturday, the ..th day of ....., 186 , will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on ....., the ..th day of ....., 186 , to pay the delinquent Assessment, together with the costs of advertising and expenses of the sale. By order of the Board of Trustees.

..... Secretary.

Office.....

Notice.—There are delinquent, upon the following described Stock, on account of assessment levied on the ..th day of ..... 186 , the several amounts set opposite the names of the respective shareholders as follows, to wit:

Names.	No. Certificate.	No. Shares.	Amount.
Theophilus Thistle	22	14	$140 00
Peter Pipe	2	3	30 00

And in accordance with law and an order of the Board of Trustees, made on the ..th day of ..... , 186 , so many shares of each parcel of said stock as may be necessary, will be sold at the.....

....., on ....., the ..th day of....., 186 , at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

..... Secretary.

Office.....

☞ Our advertisers are furnished with blank Assessment Sale notices free of charge. Orders from the interior promptly filled by mail or express, as may be desired.

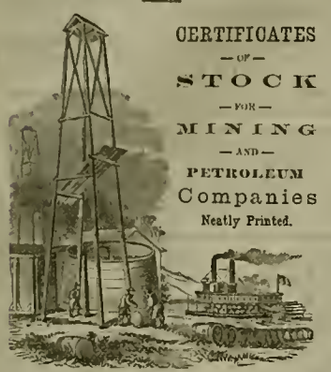
By Mail.—The Mining and Scientific Press will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

A Rare Book.—An instance of how often the purchase of a fine book, besides encouraging art and literature, may prove a good pecuniary investment, is given by the price, at the present moment, of the original grand folio edition of Audubon's "Birds of America." The work was completed in 1840, when Baron Couvier pronounced it "the most magnificent monument ever raised by art to natural science." A few years since copies could be procured for from $500 to $600; now $1,500 is asked for a well-bound copy, and it would not be possible to procure one of any kind for $1,200. As only 175 copies were printed, and several of them have been lost or destroyed at the South, the price is certain to advance, and will shortly range as high as $2,000.

Mining and Scientific Press

JOB PRINTING OFFICE,

No. 505 Clay street, corner of Sansome.



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THE TWENTY-SECOND SESSION HAS JUST OPENED. Pupils received at any time.
The Instruction is divided into three parts—The Elementary course; the English, or Scientific Course; and the ordinary College Course.
Pupils generally, and especially those in the Preparatory Departments, board at the Institution, under the direct charge of the Teachers
For further information, send for Circular.
3vl2-3m C. J. FLATT, Principal.

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TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months..... $350

For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.
3vll REV. A. MASNATA, S. J., President.

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—AND—
MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

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MANUFACTURERS OF
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Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

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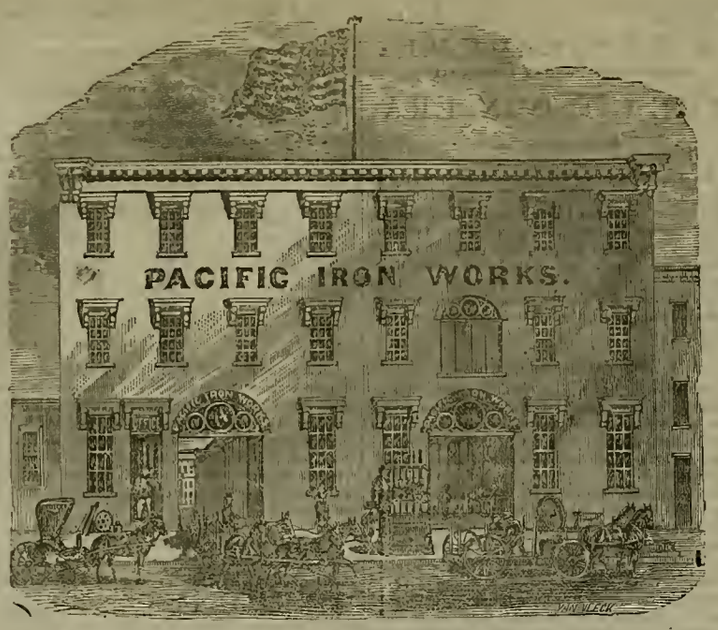
Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc.
25v9q JOHN LOCHHEAD, Practical Engineer



THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequalled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

Vulcan Iron Works Company

[ESTABLISHED 1850.]

First, Natoma and Fremont Streets.

IRON FOUNDERS,

Steam Engine and Locomotive BUILDERS,

Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery,	Flouring Mills,
Locomotives,	Quartz Mills,
Car Trucks,	Sugar Mills,
Car Wheels,	Saw Mills,

Housings and Irons; and

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR;
BEATH'S AMALGAMATOR;
HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;
BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;
FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;
JONVAL'S IMPROVED WATER WHEEL;
LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

Miners' Foundry

—AND—

MACHINE WORKS,

First St., between Howard and Folsom Streets,
SAN FRANCISCO.

EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,
Machinery, Mining Pumps, Amalgamators,
Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KING.

LEWIS COFFEY. J. S. RISDON

LEWIS COFFEY & RISDON,

Steam Boiler & Sheet Iron Works.

THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.
Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

H. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!

Corner First and Mission streets,
SAN FRANCISCO.

ESTABLISHED IN 1849.

HAVING INCREASED OUR FACILITIES IN EVERY Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's improved Tractory Curvo Pan, Zenas Wheeler's improved flat bottom pan, Beldin's pan, Veatch's tubs, Prater's concentrators, Waklee's pans, Beers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.
21vl0 H. J. BOOTH & CO.

JOHN P. GALLAGHER. JOSEPH WEED.

GALLAGHER & WEED,

BRASS AND BELL FOUNDRY

And Lock Factory.

ALL KINDS OF BRASS AND COMPOSITION CASTINGS AND FINISHING DONE WITH NEATNESS AND DISPATCH.

CHURCH AND STEAMBOAT BELLS, OF ALL SIZES, made to order. Engineers' Gongs made and hung in the best manner. Bank, Vault, Store and Prison Locks; also Brass Padlocks and Shop Locks of various patterns, on hand and made to order.

☞ Particular attention given to casting Rudder Braces and Ship Work in general.

☞ All Jobs promptly attended to. Prices moderate.☜
No. 125 First street, opposite Minna next door to Pacific Foundry. j2ll
[Removed from Oregon street, between Front and Davis

PORTLAND BOILER WORKS.

MOYNIHAN & AITKEN,

BOILER MAKERS AND SHEET IRON WORKERS.

N. B.—All kinds of Boiler and Sheet Iron Work executed at the shortest notice, and on the most reasonable terms.
Mission street, between Beale and Fremont streets, San Francisco. qy29-t

PALMER, KNOX & CO.,

Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,
SAN FRANCISCO.

MANUFACTURE ALL KINDS OF

MACHINERY,

STEAM ENGINES AND QUARTZ MILLS

DUNBAR'S IMPROVED

Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets stuck or leaky.

WHEELER & RANDALL'S

NEW GRINDER AND AMALGAMATOR,

HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

FULTON

Foundry and Iron Works.

HINCKLEY & CO.,

MANUFACTURERS OF

STEAM ENGINES,

Quartz, Flour and Saw Mills,

Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

SAN FRANCISCO

Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,

Manufacturers of

Marine and Stationery Engines

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses of the latest Improved Patterns.

Brodie's Improved PATENT WIND BLAST SEPARATOR, for Dry Crushing; Salmon's Patent Amalgamator and Separator; Wheeler & Randall's New Grinder and Separator; Baux & Guiod's Amalgamator and Separator; W. W. Tupper's Patent Sectional Grate Bar; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings, at the lowest market rates.
6vll-1y DEVOE, DINSMORE & CO.

Novelty Iron Works,

Steam Engine, Boiler and Machine Shops.

STEAM ENGINES AND BOILERS, OF ALL KINDS, ON hand and Made to Order. Quartz, Saw and Flour Mills, and all other kinds of Machinery, made to order, bought, sold or exchanged.

Reynolds' Variable Cut-Off Saves from 25 to 60 per cent. of Fuel.

WINANS' ANTI-INCRUSTATION POWDER for Steam Boilers, A SURE REMEDY. Send for a Circular.

E. T. STEEN.

105, 107 and 109 Fremont st., cor of Mission
SAN FRANCISCO 21v9tfq

JAMES MACKEN,

COPPERSMITH,

No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to.
13vll

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the Mining and Scientific Press. 19v11tf

DEEP MINING.—The Eureka mine, of Amador, which, we believe, has, almost from its first opening, continued to be the deepest mine in California, is now down over 1,000 feet, and is still found to pay as well as at any point of lesser depth. We believe the rule holds, thus far in California, almost without exception, that after any considerable depth has been attained, there is no depreciation in profit perceptible—the increasing yield of the mine making up fully for the increased expense of working at a greater depth. This rule holds good, especially in Grass Valley.

GEOLOGY TO BE POPULARIZED.—It is stated that Theodore S. Fay, a writer known well to readers of twenty years ago, and who for nearly a quarter of a century has resided in Europe, is engaged upon the preparation of a series of text-books on geology, which promises to be in advance of anything hitherto known, and which will sweep all rivals from the field.

FARMING PROSPECTS.—The Stockton *Independent* says, during no winter, since we became acquainted with the San Joaquin Valley, have the prospects of the farmers been more auspicious than they are at present.

THE States of Connecticut, Iowa, Wisconsin and Minnesota, have voted against negro suffrage. The people of Colorado Territory also made the same expression of sentiment in their late vote adopting a State Constitution.

MINING SALE.—One-half of the Shanghae quartz mine, near Yankee Hill, Tuolumne county, has been sold to a San Francisco party for $25,000. George Morgan and J. B. Douglass, of Columbia, were among the owners.

MONTANA.—The Territory is without a Legislature, or the power to call one. An Enabling Act, by Congress, is the only way suggested to overcome the difficulty.

OUR NEW YORK AGENCY.

Mr. GEO. M. NEWTON is our authorized agent in New York City, and will receive advertisements and subscriptions for the MINING AND SCIENTIFIC PRESS at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "STOCKHOLDER," No. 72 William street.

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California In the matter of the Estate of ALVA L. STILES, deceased. Order to show cause why order of sale of real estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by John M. Stiles, the Administrator of the estate of Alva L. Stiles, deceased, praying for an order of sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts, expenses and charges of administration that have already accrued, and the debts, expenses and charges of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said Administrator to sell so much of the real estate of the said deceased, as shall be necessary for the purposes abovementioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, cancelled. [Seal.] } WM. LOEWY, Clerk.

By A. J. JEGHERS, Deputy Clerk.

THOS. B. BISHOP, Attorney. 2v12-4w

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California In the matter of the Estate of SAMUEL L. DENNISON, deceased. Order to show cause why Order of Sale of Real Estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by C. E. McNear and Patrick Scully, who are creditors of said Estate of Samuel L. Dennison, deceased, praying for an order of Sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts outstanding against said deceased, the debts, expenses, and charges of administration that have already accrued, and the debts, expenses, and charges, of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said petitioners, authorizing and requiring the Administratrix of said estate to sell so much of the real estate of the said deceased, as shall be necessary for the purposes abovementioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County, and that a citation issue to Maria J. Dennison, the Administratrix of said estate, and be served upon her at least four weeks prior to the time above-mentioned for said hearing.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand, and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, cancelled. [Seal.] } WM. LOEWY, Clerk.

By A. J. JEGHERS, Deputy Clerk.

PORTER & HOLLADAY, Attorneys for Petitioners. 2v12-4w

1852. 1866

A NEW VOLUME.

Fourteenth Year of Publication.

THE GOLDEN ERA.

Founded in 1852.

The oldest Weekly Paper in the State, permanently established, and more widely circulated at home and abroad than any other on the Pacific Coast. In California, the Atlantic States, and throughout the entire field of its great and rapidly increasing circulation, THE GOLDEN ERA is universally regarded as a Literary and Family Journal of unequalled excellence. Among its contributors are all the best writers on this side of the Continent, and correspondents of distinguished ability in New York, Paris and London.

Liberal Terms to Clubs.

THE GOLDEN ERA is furnished to CLUBS at the following rates: Three Copies, one year, Ten Dollars; Five Copies, one year, Fifteen Dollars; Ten Copies, one year, Twenty five Dollars. An extra copy will be forwarded, free, for one year, to the person sending a club of five or ten subscribers.

THE GOLDEN ERA is now enlarged by the addition of eight columns to its pages—and presents fifty-six columns, containing the greatest possible variety of Valuable and Entertaining, Original and Selected Matter, all combining to render THE GOLDEN ERA a Literary and Family Journal of surpassing interest and attraction; a Welcome Guest in Cottage and Cabin; the favorite at the fireside in City and Country, the most useful, agreeable altogether desirable publication for California readers and their kindred and friends in the Atlantic States, Europe, and elsewhere. Every Household in the Mountains and Valleys, the Cities, Towns, and Mining Camps of California and throughout the Pacific States and Territories, should receive and welcome THE GOLDEN ERA as a regular weekly visitor.

Serial Romances in The Golden Era.

The most popular Novels of the present day published as Serials, from week to week, in the GOLDEN ERA, from advance sheets, simultaneously with their appearance in the English and Atlantic Periodicals.

Among the contributors to the GOLDEN ERA are all the prominent writers of Literary Repute in California and on the Pacific Coast, also correspondents and contributors of distinguished ability in the Atlantic States and Europe, comprising an array of Talent and Genius unapproached by any Literary Journal in California, the Atlantic States, or Europe.

"THOUGHTS AND THINGS"

APPEAR WEEKLY IN THE GOLDEN ERA.

Read "Thoughts and Things" in the GOLDEN ERA.
" Professor Clearquill." in the Golden Era.
" Dogherry," in the Golden Era.
" Alice Mason," in the Golden Era.
" Hugh Humphrey," in the Golden Era.
" Bill Dadd," in the Golden Era.

SUBSCRIBE FOR THE GOLDEN ERA.

One Year.....$4 00 Six Months.....$2 00

To Mail Subscribers.

THE GOLDEN ERA for One Year.....$4 00
THE GOLDEN ERA for Six Months.....$2 00
THE GOLDEN ERA for Three Months.....$1 00

Send from the Office to any Address in California and Oregon—Nevada, Washington, Idaho, Utah and Colorado Territories—the Atlantic States, Europe, and all parts of the World.

Take care to write distinctly the name of the person, the name of the city, town or locality where the post office is situated, and the name of the County and State, in order that the paper may be fully and accurately directed to every address.

AGENTS in every part of the State receive subscriptions for the GOLDEN ERA.

POSTMASTERS in California, Oregon, and neighboring Territories obtaining subscriptions for the GOLDEN ERA and forwarding the same, with name and address of the subscriber, will be allowed a very liberal commission therefor.

Liberal Terms to Clubs.

Three copies, one year.....$10 00
Five copies, one year.....$15 00
Ten copies, one year.....$25 00

Now is the Time to Subscribe.

TO ADVERTISERS.

Best Advertising Medium.—The Golden Era is the oldest Weekly Journal in California, and indisputably enjoys by far the largest circulation in the city of San Francisco and in the interior of the State.

THE GOLDEN ERA

Is universally read in every city, town, village and mining and agricultural precinct in California, and offers unusual and unequalled advantages to those who desire to bring their business prominently before the community. Only a limited space is devoted to advertising. All advertising pages are also largely occupied with fresh and interesting reading matter, and no advertisement can escape attention. The charges for advertising are not so large, proportioned to the benefits derived, as those of other papers. Liberal terms will be made with those who advertise for three or six months, or by the year.

BROOKS & LAWRENCE,

GOLDEN ERA BUILDING,

No. 543 Clay street, near Montgomery, San Francisco

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Great Western Tunnel and Mining Company—Location of Works: Aurora, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 28th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Charles Rohrle	327	100	$10 00
Charles Robrlo	324	150	15 00
Charles Robrle	325	150	15 00
Charles Rourle	326	100	10 00
Charles Rowell	223	25	2 50
Charles Rowell	224	25	2 50
Charles Rowell	258	22	2 20
Charles Rowell	291	100	10 00
Charles Rowell	292	100	10 00
Charles Rowell	293	40	4 00
Charles Rowell	306	48	4 80

And in accordance with law, and an order of the Board of Trustees, made on the 28th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 10th day of February, 1866, at the hour of 11 o'clock, A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOS. C. FORD, Secretary.

Office, No. 20 Exchange Building. jan27

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of January, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, W. L. GETCHELL.

Any stock upon which said assessment shall remain unpaid on Saturday, the 24th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. jan27

Salamander Gold and Silver Mining Company, Mill Valley District, Calaveras County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 28th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Lawrence Ackli,	189 to 192	105 5-19	$21 00
H G Bartholemew	102	50	14 00
Mrs C Bartholemew	104 to 109	20	4 00
John Brannan	290	105 5-19	21 00
John Callahan	169	80 5-19	16 00
Jas Carty	280	100 5-19	20 00
J Dwyor	206	105 5-19	21 00
Ed Dougherty	93	25	5 00
Jas Dowd	259	5	1 00
Thos Donohue	96 to 101	50	10 00
M C Farley	235	10	2 00
Mrs Margarett Gibbons	287	20	4 00
Jas Hamilton	1, 3, 5, 7, 8	65 5-19	13 00
X Huber	294	105	21 00
A E Hill	269	10	2 00
Wm Jackson	44 to 68 and 188 to 255	860 2-19	112 00
John Kahars	260 to 262	25	5 00
Wm Kretchman	295	105 5-19	21 00
B Kenney	151	10	2 00
John Louth	279	95 5-19	19 00
Jas Liddy	238	25	5 00
Jas Morgan	30, 31, 34, 35, 37 39, 40, 41, 42, 43	70 5-19	14 00
D McColgan	292	50	10 00
T F Maguire	286	30 5-19	6 00
Ed Pomroy	225 to 234	200 10-19	40 00
John Perry	271	25	5 00
John J Redmond	283	105 5-19	21 00
E L Roesing	293	105 5-19	21 00
John Ryan	214	25	5 00
R F Ryan	198 to 219	45	9 00
G W Smith	291	100 10-19	20 00
A Schramm	217	105 5-19	21 00
A P Warren	243 to 288	115	23 00

And in accordance with law, and an order of the Board of Trustees, made on the 28th day of December, 1865, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at J. R. Stewart & Co.'s, No. 417 Battery street, on the 10th day of February, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

F. D. GALLAGHER, Secretary.

Office, No. 35 Metropolitan Block, San Francisco, Cal. jan27

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Animas Silver Mining Company---Location of Mines: Ventanas, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 30th day of December, 1865, an assessment of forty (40) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, pro tem., THOMAS HILL, at his office, No. 622 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

THOMAS HILL, Secretary Pro tem,

Office, 622 Montgomery street, San Francisco, Cal. de30

SUBSCRIBE FOR IT.—The large, illustrated sixty-four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

Agawam Gold and Silver Mining Company, Union District, Nye County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 12th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
G O Altman	10	8	$ 8 00
C C Hays	11	7	7 00
E G Lamb	23	5	5 00
John W Stonner	35	5	5 00
Mills & Evans	38	50	50 00
Mills & Evans	40	10	10 00
Mills & Evans	42	5	5 00
Jerome Leland	59	10	10 00
Frank Barker	60	5	5 00
Geo F Stevens	66	5	5 00
A M Cumstock	82	60	60 00
A M Comstock	13	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 12th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 27th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

G. M. BURNHAM, Secretary.

Office, 436 Jackson street. jan13

POSTPONEMENT.—The above sale is hereby postponed until February 6th, 1866, at the same hour and place. By order of the Board of Trustees.

jan20 G. M. BURNHAM, Secretary.

Blue Ledge Gold and Silver Quartz Mining Company, Kelsey Mining District, El Dorado County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 12th day of December, 1865, the several amounts set opposite the names of the respective shareholders as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm H Alley	bal 2003	2	$ 3 00
Wm H Alley	bal 2005	2	3 00
L H Allen	2668	10	15 00
L A Bly	1623	5	7 50
Judah Baker, jr	822	10	15 00
Judah Baker, jr	2674	5	7 50
R G Byxbee	842	10	15 00
R G Byxbee	843	10	15 00
J T Boyd	872	10	15 00
Warner Buck	2625	10	15 00
T L Barker	3043	50	75 00
T L Barker	3044	50	75 00
J C Collins	1688	20	30 00
J C Collins	1700	10	15 00
A E Crane	1720	10	15 00
Hugh Crockard	3032	10	15 00
Hugh Crockard	3064	10	15 00
E M Derby	2731	20	30 00
E M Derby	2732	10	15 00
E M Derby	2733	10	15 00
E M Derby	2734	20	30 00
E M Derby	2735	20	30 00
Edw Ouckett	1500	10	15 00
W C Flint	3111	10	15 00
John J Foy	bal 2468	5	7 50
D L Fouts	bal 1131	5	7 50
Henry I Frey	1394	6	9 00
H M Fortune	3066	20	30 00
W N G Gardner	1538	5	7 50
Jos Godchaux	3053	50	75 00
Wm J Gunn	3127	10	15 00
Isaiah Harris	1703	4	6 00
J Y Hollinshead	3055	5	7 50
Daniel Hinckley	bal 1957	5	7 50
Daniel Hinckley	bal 2158	5	7 50
John V Hunter	bal 1969	4	6 00
Elisha Higgins	871	5	7 50
Elisha Higgins	2006	5	7 50
De Witt Hulso	bal 998	5	7 50
De Witt Hulse	bal 1571	5	7 50
De Witt Hulso	bal 1661	2	3 00
Elander Heath	1572	10	15 00
Elander Heath	1818	10	15 00
W B Holcombe	3117	50	75 00
Edw Jellings	578	2	3 00
H Ilsam	1542	10	15 00
John W Joker	1870	15	22 50
I Livingston	1678	50	75 00
I Livingston	1748	5	7 50
I Livingston	1812	10	15 00
I Livingston	1816	10	15 00
I Livingston	2056	25	37 50
I Livingston	3106	70	105 00
I Livingston	3109	30	45 00
Robert Mills	1687	10	15 00
Margaret J McLeod	1404	1	1 50
John Martenstein	1492	25	37 50
John Martenstein	bal 1482	2½	3 75
F A Munroe	1954	20	30 00
F A Munroe	bal 1912	26	39 00
F A Munroe	bal 1920	26	39 00
E S Morrison	3114	50	75 00
John McMahon	3119	70	105 00
Jas Nelson	1552	30	45 00
Jas Nelson	1648	10	15 00
Jas Nelson	1650	20	30 00
Jas Nelson	1652	20	30 00
Mateo Redulla	2540	2½	3 75
Wm Rice	bal 2911	2½	3 75
Wm Rice	bal 2915	5	7 50
A Rosenfield	3062	5	7 50
Chas Smith	bal 2018	7	10 50
Chas Smith	bal 2175	7	10 50
Ann T Swain	1682	30	45 00
Ann T Swain	3101	5	7 50
Ceo E Sherwood	2657	10	15 00
J F Storer	3118	70	105 00
J F Storer	3130	30	45 00
O B Shaw	1003	2	3 00
Oliver Taylor	1756	5	7 50
Oliver Taylor	3132	10	15 00
T F Tracy	bal 1584	5	7 50
Lewis Tecse	748	5	7 50
H A Winter	218	5	7 50
Chas L Wiggin	2250	5	7 50
C L Wilson	2427	5	7 50
S H Wetherbee	bal 1389	5	7 50
Abram Warner	2566	10	15 00
Robt Wilson	bal 1478	11	16 50

And in accordance with law, and an order of the Board of Trustees, made on the 12th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 27th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. jan13

SEND US WORD.—If any subscriber to this journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

Blue Ledge Gold and Silver Mining Company,
Lander County, Nevada.

Notica is hereby given, that at a meeting of tha Board of Trustees of said Company, held on the 2d day nf January, 1865, an assessment of one dollar ($1) per shara was levied upon the capital stock of said Company, payable immediately, in United States gold and and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid nu Saturday, the 3d day of February, 1866, will be advertised on that day as dalinquent, and unless paymeut shall be made befora, will be sold on Monday, the 19th day of February, 1866, to pay the delinquent assesment, together with costs of advertising and expenses of tha sale. By order nf the Board nf Trustees.

N. O. FASSETT, Secretary.
Office, 402 Front street, San Francisco. jan6

Consolidated Silver Hill Mining Company---
Location of Works: Esmeralda District, Nevada.

Notica is hereby given, that at a meeting nf the Board of Trustees of said Company, held on the 5th day of January, A. D. 1866, an assessment of two dollars ($2) per share was levied upon the capital stock of said Company, payabla immediately, in United States gold and silver coin, to tha Secretary, at the office of the Company, Room No. 15 Government House, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 10th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be mada before, will ba sold on Wednesday, the 21st day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Buard nf Trustees.

Jan13 JOHN J. MACKENZIE, Secretary.

Diana Gold and Silver Mining Company,
Lauder County, Nevada.

Notice.—Thero are delinquent upon the following described stock, ou account of assessment levied on the 21st day of December, 1865, the several amounts set opposite tho uames nf tho respectivo shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Allen, H H	236	3	$ 30 00
Allen, H H	271	46¼	465 00
Allman, John	304	7	70 00
Allman, John	305	6	60 00
Bradley, H W	289	11	110 00
Bateman, I C	211	4	40 00
Bateman, I C	208	120	1200 00
Bidleman, E J	308	5	50 00
Bidleman, E J	300	4¾	43 75
Bidleman, E J	312	9	90 00
Bidleman, E J	320	15	150 00
Cutter, H F	14	21	210 00
Cutter, H F	200	5	50 00
Cutter, H F	248	10	100 00
Camp, James	143	10	100 00
Crockett, Geo W H	244	5	50 00
Drinkhouse, J A	318	25	250 00
Dawley, Jas M & Co	161	5	50 00
Dawley, Jas M & Co	162	5	50 00
Dawley, Jas M & Co	104	10	100 00
Detrick, E	255	3	30 00
Francis, D B	34	3	30 00
Francis, D B	62	10	100 00
Frazee, C D	224	20	200 00
Greene, S H	7	12	120 00
Greene, S H	269	13½	135 00
Harrington, W C	290	5	50 00
Harrington, W C	291	10	100 00
Harrington, W C	292	10	100 00
Harrington, W C	293	10	100 00
Harrington, W C	294	10	100 00
Harrington, W C	295	10	100 00
Harrington, W C	296	10	100 00
Harrington, W C	297	10	100 00
Harrington, W C	298	10	100 00
Harrington, W C	299	10	100 00
Harrington, W C	300	10	100 00
Harrington, W C	301	10	100 00
Harrington, W C	302	10	100 00
Harrington, W C	303	10	100 00
Hardy, Jas H	278	5	50 00
Hastings, John	214	10	100 00
Hastings, John	242	5	50 00
Hastings, John	246	5	50 00
Light, C H	2	6¼	62 50
Lauder, P C	270	14	140 00
Ladd, C J	115	10	100 00
Miller, Albert	319	20	200 00
Neyman, H J	86	10	100 00
Neymae, H J	105	25	250 00
McDaniel, D	61	2	20 00
O'Neil, A E	215	20	200 00
Perley, D W	180	20	200 00
Perley, D W	181	10	100 00
Perley, D W	182	10	100 00
Perley, D W	183	8¾	87 50
Perkins, A B	220	8	80 00
Pridham, Wm	223	5	50 00
Sharp, Geo F	52	4	40 00
Turner, Aena K	35	2	20 00
Warren, O P	251	22	220 00
Williams, J J	142	2	20 00
Welch, G W	206	10	100 00

And in accordance with law and an order of the Board of Trustees, made oe the 21st day of Decemher, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, by Jones & Bendixen, on the 6th day of Februnry, 1866, at the hour of 1 o'clock P. M. of said day, to pay said dshnquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco, Csl. jan20

Removal.

The Office of the Mining and Scientific Press has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being nne block south of our forme location), where we may now be found, with more eommodious apartments and an extensive Joa Printing Office.

San Francisco, April 10th, 1865.

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for Book and Pamphlet Printing entrusted to the Mining and Scientific Press Job Office.

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on hi coast.

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpina County, Cal.
Assessment Nn. 9.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 26th day of December, 1865, an assessment of ona dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on Saturday, tha 27th day of January, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, tha 13th day of February, 1866, to pay tha delinquent assessment, together with costs of advertising and expanses of sale. By order of tha Board of Trustees.

W. D. ROOT, Secretary.

Postponement.—The advertisement of stock delinquent on the above assessment is hereby postponed until Saturday, February 3d, 1866, and the sale thereof until Tuesday, February 20th, 1866. By order of the Board of Trustees.

W. D. ROOT, Secretary,
Office, 338 Montgomery street, San Francisco. de30

Honest Miner Gold and Silver Mining Company, Lander County, Nevada.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Bertody, Chas	147	10	$ 5 00
Brooks, O W, Trustee	214	5	2 50
Cutter, H F	268	70	35 00
Cutter, H F	284	3	1 50
Cutter, H F	303	38	19 00
Cutter, H F	318	7	3 50
Chevers, W H	311	2	1 00
Frank, J	312	4½	2 25
Greene, S H	40	7	3 50
Howard, H O	209	10	5 00
Lauder, P C	42	0	3 00
Lyle, T B	133	1	3 50
Reed, J L	313	4	2 00
Tilton, S S	183	10	5 00
Upton, M	314	1	50
Whitlatch, J W	64	5	2 50
Whitlatch, J W	67	5	2 50
Whitlatch, J W	68	10	5 00
Whitlatch, J W	69	10	5 00
Whitlatch, J W	109	5	2 50
Whitlatch, J W	242	10	5 00
Wendell, Medora	222	1	50

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Beudixen, auctioneers, on the 29th day of January, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C FASSETT, Secretary.
Office, 402 Front street, San Francisco. jan13

Hornet Gold and Silver Mining Company, Lander County, Nevada.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 21st day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Addleberger, C F	8	10	$10 00
Addleberger, C F	9	10	10 00
Addleberger, C F	10	10	10 00
Addleberger, C F	14	5	5 00
Austin, B C	93	5	5 00
Baker, Fred	30	10	10 00
Baker, Frad	32	10	10 00
Baker, Fred	35	5	5 00
Baker, Fred	36	5	5 00
Baker, Fred	37	5	5 00
Casen, J D	76	10	10 00
Casen, J D	77	12½	12 50
Coddington, Geo W	86	20	20 00
Campbell, M	89	5	5 00
Campbell, M	90	5	5 00
Cutter, H F	100	96	96 00
Kerley, J C	38	20	20 00
Kerley, J C	39	20	20 00
Korley, J C	43	5	5 00
Massey, J M	56	12½	12 50
Massey, J M	57	20	20 00
Parker, Edwin	68	10	10 00
Todd, Jos	2	10	10 00
Todd, Jos	3	10	10 00
Todd, Jos	4	10	10 00
Tureman, C W	78	20	20 00
Turcman, C W	79	10	10 00
Tursman, C W	80	10	10 00
Rumsey, L W	75	10	10 00
Welton, E W	49	10	10 00
Welton, E W	50	10	10 00
Welton, E W	51	10	10 00

And in accordance with law and an order of the Board of Trustees, made on the 21st day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the Company, by Jones & Bendixen, on the 6th day of February, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary,
Office, 402 Front street, San Francisco, Cal. Jan20

Volume Twelfth.—The Mining and Scientific Press, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Goldea Era.

MINING LAWS AND FORMS.

Third Edition revised and enlarged.

Compiled by H. H. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, Complete: Digest of Decisions of the Supreme Court; Forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

Published by H. H. BANCROFT & CO.

Joe Lane Gold and Silver Mining Company, Lander County, Nevada.

Notice.—There are delinquent upon the following described Stock, on account of Assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Ayres, W O	152	8	$ 4 00
Aud, B A	159	29 11-16	14 83
Bradley, H W	8	5	2 50
Baker, Fred	105	10	5 00
Baker, Fred	106	10	5 00
Baker, Fred	107	10	5 00
Cutter, H F	142	5	2 50
Cutter, H F	158	81	40 50
Carroll, F P	119	90	45 00
Carroll, F P	131	20 13-16	10 40
Greene, S H	7	8	4 00
Heath, R W	151	34	17 00
Harrington, W C	153	2	1 00
Perley, D W	80	50	25 00
Stateler, J W	154	8	4 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Bendixen, auctioneers, on the 29th day of January, 1866, at the hour of 1¼ o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco, Cal. jan13

Kentneky Copper Mining Company—Location: Mmc. Felix District, north of Copperopolis, Calaveras County, California.

Notice.—There are delinquent upon the following described stock, on account of assessment No. 7, levied on the 20th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Daryes, R	47	10	$10 00
Gallagher, Th	188	75	75 00
Lachmann, S	235	25	25 00
Lacbmann, S	247	25	25 00
McCarter & Oxteby	116	25	25 00
Schubmacber, R	271	10	10 00
Steinle, E	267	10	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 20th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Cebh & Sluton, at No. 406 Montgomery street, San Francisco, Cal., on Wednesday, the 7th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. A. BAUER, Secretary.
Office, 644 Washinglon street, San Francisco, Cal. j20

Nevada Gold and Silver Mining Company, Lander County, Nevada.

Notice.—There are delinquent upon tho following described stock, on account of assessment levied on the 14th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bradley, H W	71	15	$22 50
Brown, E J	108	15	22 50
Cutter, H F	95	2 16	3 25
Cutter, H F	99	30	45 00
Cutter, H F	116	6	9 00
Chevers, W H	19	15	22 50
Dinklespiel, L	107	7	10 50
Francis, D B	108	5½	8 25
Greene, Samuel H	70	19	28 50
Heath, R W	10	22	33 00
Knox, J W	113	13	19 50
Lauder, P C	65	15	22 50
Lander, Amos C	97	20	30 00
Mills, H A	109	4	6 00
McDaniel, D	6	7½	11 25
Murphy, David	110	14¾	22 00
Upton, M	111	8	12 00
Waterman, T A	33	25	37 50
Waterman, T A	34	25	37 50
Waterman, T A	35	20	30 00
Waterman, T A	36	10	15 00
Waterman, T A	37	5	7 50
Waterman, T A	38	5	7 50
Waterman, T A	39	5	7 50
Waterman, T A	40	6¾	10 00
Williams, J J	69	7½	11 25

And in accordance with law and an order of the Board of Trustees, made on the 14th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, by Jones & Bendixen, Auctioneers, on the 29th day of January, 1866 at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. jan13

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangereus to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. The Mining and Scientific Press Patent Agency has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

Economy in Advertising.—The Mining and Scientific Press is the best and most economical mining advertising medium in this city. Our terms are less than one half the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The Press contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Postponements.—We would again call the attention of Secretaries to a certain point of the mining law, too commonly overlooked, viz: The requirement that all postponements must be added previous to the expiration of the regular publication of assessment or sale notices.

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is bereby given, that at a meeting of the Board of Trustees of said Company, held on the 8th day of January, 1866, an assessment of fifty (50) cents per share was levied upon tha capital stock of said Company, payable on the 9th day of January, 1866, in United States gold and silver coin, to the Secretary, or tn tha Superintendent at the mine.

Any stock upon which ssid assessment shall remain unpaid on Saturday, the 17th day of February, 1865, will be advertised on that day as delinquent, and unless payment shall ba made before, will be sold on Saturday, the 3d day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretary.
Office, corner Brosdway and Sansome streets, San Franlsco. jan20

Owen's River Canal Company, Tulare County, California.

Notice is hereby given, that at a meeting of the Board nf Trustees of said Company, held on the 4th day of January, 1866, an assessment of forty (40) cents per share was levied upon the assessable stock of said Company, payable on the 8th day of January, 1866, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of February, 1866, tn pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. RIBBINS, Secretary.
Office, 618 Merchant street, San Francisco, Cal. jan6

Wide West Gold and Silver Mining Company.
Location: Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board nf Trustees of said Company, held on the 4th day of January, 1866, an assessment of three ($3) dollars per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 330 Davis street, San Francisco, or to F. L. Jackson, Superintendent, at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 21st day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOSEPH GREEN, Secretary.
Office, 330 Davis street, corner of Washington street, San Francisco. jan6-4w

Yankee Blade Mining Company---Location of Works: Reese River Mining District, State of Nevada.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 6th day of Decsmber, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Baldwin Gardner, jr	102	6	$ 90 00
Henry Sylvester	108	10	150 00
Mrs Louisa Baxter	154	4	60 00
J A Jackson	unissued	7	105 00
A Eborhardt	285	5	75 00
United Reese River S M Co	221	50	750 00
W Wadsworth	242	10	150 00

And in accordance with law, and an order of the Board of Trustees, made on the 6th day of Decsmber, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at 329 Montgomery street, San Fracisco, Cal., being the office of the Company, on Monday, the 29th day of January, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessmeut thereon, together with costs of advertising and expenses of sale.

WM. T. ATWOOD, Secretary.
Office, No. 329 Montgomery street (Stevenson House), San Francisco. jan20

Yosemite Silver Mining Company, Oro Fino District, Humboldt County, Nevada.

Notice.—There are delinquent upon the following described stock, on account of assessmeut levied on the 21st day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Robinson, Geo	134	60	$75 00
Hutchins, Fred	135	20	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 21st day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Jones & Bendixen, at 402 Front street, on the 6th day of February, 1866, at the hour of 1½ o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

S. O. PUTNAM, Secretary.
Office, 402 Front street, San Francisco. jan20

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, California.

Notice is hereby giveu, that at a meeting of the Board of Trustees of said Company, held on the 1st day of January, 1866, an assessment of three dollars ($3) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 210 Pine street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 17th day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

P. R. RINGSTROM, Secretary.
Office, 210 Pine street, up stairs, San Francisco.

N. B.—Tho abovo assessment is for the payment of balance due on machinery, and its erection at the mine. ja6

Calendars for 1866.—The Mining and Scientific Press Job Printing Office is prepared to execute every manner of Counting-house Calendars and advertisements for various business men, on short notice and moderate terms.

CURIOUS PHENOMENA.—The Milton hoisting works were burned, at Gold Hill one night last week. After the fire had almost died away, the attention of a great many persons was attracted to a column of light that shot up from the ruins and seemed to be about four feet in diameter and several thousand feet high. After the building was demolished, the timbers in the shaft took fire, and the fire in the shaft naturally gave a tremendous draft to the atmosphere, the Milton works being connected with the Crœsus by a drift—hence the phenomena.

LIFE is a fading tint and fleeting form. It is the blue on the grape; the blush on the rose; the foam on the wave, the beam on the cloud; the smoke on the wind, or arrow in the air.

Deserved Testimonial.

GRIZZLY FLAT, Oct. 18, 1865.

MESSRS. HUNGERFORD & HENDY—*Gentlemen:* We have run your Concentrator for several days past, in our 5-stamp Mill, and, as far as can be ascertained at present, it is a perfect success. When running at the rate of from two hundred and ten to two hundred and twenty-five revolutions per minute, we have lost neither quicksilver nor sulphurets. Formerly, when using copperplate riffles and blankets, we found that in spite of the utmost precaution, quicksilver would escape over them all. Wishing you all success, we remain Your obedient servants,

E. A. BIGLER.
17v11qy S. F. DAVIS.

Oakland Water-Cure.

APRIL 1ST, 1864, WE OPENED A HYGIENIC BOARDING House and Ladies' Health Institute in Oakland. The great advantage we have experienced since that time, in the treatment and cure of all those diseases peculiar to females, as well as those common to all, over that of San Francisco, induced us to give up the treatment of gentlemen in the city. We have accordingly removed our entire Bathing, Electro-magnetic, and Gymnastic Apparatus, which we used especially in the treatment of males, to our Health Institute across the Bay, and have found, after a trial of seven months, that gentlemen as well as lady patients recover, at our Fountain Farm Cure, one-third faster than in the city of San Francisco. The climate here is the most even and bracing to be found in the State. The grounds command a view unsurpassed in the world. The Institution is furnished with an abundance of pure, soft water, from numerous springs; and we now offer to Ministers, Teachers, Lawyers, Miners, Merchants, Mechanics, Farmers, and all other worthy persons, who desire to try the advantage of the only *rational* system of medicine, the hospitalities of our Hygienic Home and Cure. Young men who have become debilitated or lost their health by excessive toil, exposure, or enervating habits, contracted through ignorance of Physical Laws, may with us find more of the encouragements they need, and means that will restore them to health, than elsewhere in California.

We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that it is followed by none of those debilitating diseases, such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, Intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Urethal Strictures, etc., which we well know result from the free use of mercury and other metallic drugs, together with stimulants and vegetable poisons given to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in its facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any like establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douch Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to miners, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Mercurial, Lead, and Oak Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have yet used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, retorting metals, the malaria of rivers and low marshy grounds. Where there was a fair constitution left, even when drugs had been applied for months and years without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflamatory and Mercurial Rheumatism; Paralysis; Lung, Bronchial and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Erysipelas, Scrofula, Piles, Inflammation of the Bowels, Cholera and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is so favorably situated to furnish so many home comforts and hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only truly healthful boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the medication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in the bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institutions, (both in Sacramento and San Francisco) has induced us to make this class of human afflictions a specialty of our Institution. We have treated (mostly in the cure), over 300 females, several of whom had been "bedridden" for months and years, and all have been decidedly benefited, and with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

There is not one female invalid in twenty that has been suffering from nervous debility or disease peculiar to her sex, that cannot be permanently cured by spending from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn of a single regret from husband or wife of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has labored successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo-Therapeutic College.

To all whom it may concern:

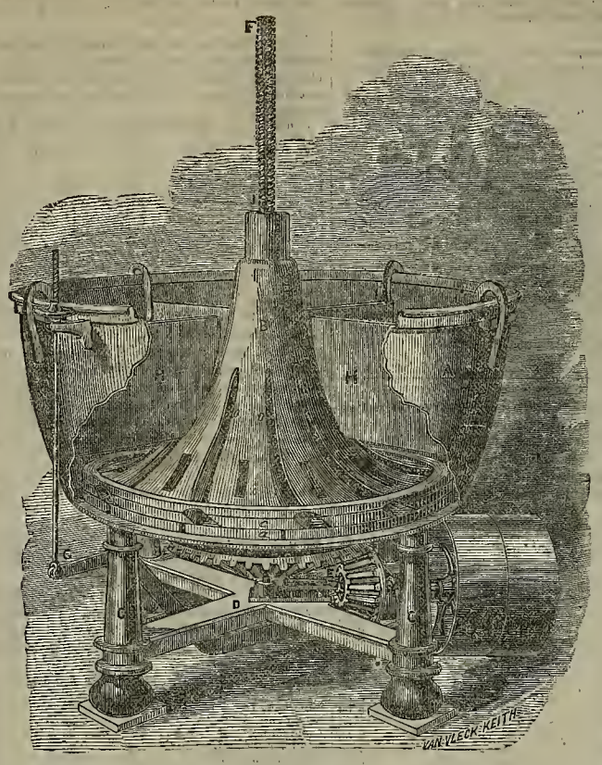
I have known Dr Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as an honest, faithful delineator of character, and as such can cheerfully recommend him to the public.

For the good of Science.

L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

BARLOW J. SMITH, M. D.,
20v11tf San Francisco, Box 473.



THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works.

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.

SAN FRANCISCO, June 13, 1865.

LICK HOUSE,
Corner of Montgomery and Sutter streets,
SAN FRANCISCO.

S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests.
15v11

CALIFORNIA CLOTH,
CLOTHING MADE FROM;
For Wholesale and Retail Trade,
ALSO, CLOTHING MADE TO ORDER,
AT QUINCY HALL,
Nos. 545, 547 and 549 Washington Street,
SAN FRANCISCO, CAL.
19v11-3m

VALUABLE PATENT RIGHT FOR SALE.

The patent right for the United States of a valuable invention can be secured at a bargain by applying at this office. The article is one of general application throughout civilization.

DEWEY & CO., Publishers.

RUGGLES' PRINTING PRESS
For Sale or Exchange.

The Proprietors of the MINING AND SCIENTIFIC PRESS have on hand a Half-Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,
Office, 505 Clay street.

THE STYLE
—FOR—
Fall and Winter, 1865,
Will be introduced Aug. 26, at
MEUSSDORFFER'S HAT MANUFACTORIES,
Nos. 635 & 637 Commercial st., San Francisco,
No. 125 J st., bet. Fourth & Fifth, Sacramento.
Corner D and Second Streets, Marysville. 12v11

WE ARE NOW OFFERING
OUR IMMENSE STOCK
—OF—
Fine Custom Made Clothing
—AND—
Gents' Furnishing Goods
AT PRICES THAT DEFY COMPETITION.
Our Stock of Clothing Consists of
ALL THE LATEST STYLES
BOTH OF MATERIAL AND FINISH.
A Large Assortment of
Trunks, Valises, Carpet Bags, Blankets, Etc.,
AT EXTREMELY LOW PRICES.
J. R. MEAD & CO.,
8v10 Cor. of Washington and Sansome streets.

SAN FRANCISCO
CORDAGE MANUFACTORY.
CONSTANTLY ON HAND,
A Large and Complete Assortment
—OF—
MANILA CORDAGE,
FOR MINING PURPOSES.
—ALSO—
WHALE LINE, BALE ROPE, ETC.,
Manufactured from Pure Manila Hemp.
Hoisting Ropes for Deep Shafts,
—ALSO—
Lines for Ferry Boats,
Manufactured to Order.
Office at TUBBS & CO.'S,
Nos. 611 and 613 Front street.
Manufactory at the Potre 14v10

JOHN TAYLOR & CO.,
—IMPORTERS AND DEALERS OF—
ASSAYERS' MATERIALS,
Druggists' & Chemists' Glassware,
Photographic Stock, Etc.
512 and 514 Washington Street,
SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco, March 6, 1865. 11v10-tf

CHARLES BERNARD,
MANUFACTURER AND DEALER IN
Family Chartres Coffee,
AND SPICES OF ALL KINDS,
No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.

First Premium Awarded
BY THE MECHANICS' INSTITUTE,
FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to.
15v11-3m

OIL WELL BORING.
J. SEVENOAKS,
Contractor
For Well Boring and Erecting all kinds of Machinery connected therewith.

Having had extensive experience in boring for oil in Pennsylvania, Canada and elsewhere, I feel confident of being able to give entire satisfaction. Persons desirous of making contracts as above, or wishing information with regard to oil indications, etc., will please address me at the office of the "Mining and Scientific Press," San Francisco, or to my personal address, Box 1229 San Francisco. 2v12

MINING PROPERTIES.

PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble.
1v12

ENGRAVED TO ORDER.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st

THE Sacramento *Bee* says that there are in the State ninety millions of acres adapted to agriculture, of which over six millions are under fence. During the year 1865, twelve millions bushels of wheat were produced, eighteen millions of barley, two million gallons of wine from thirty millions of vines. There were in the State two millions of sheep, from which the wool-clip was ten millions of pounds.

THERE are in San Francisco fifty-two military companies. Forty-two companies are organized into regiments and battalions, the other ten companies being unattached.

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, Mr. TURNER HAMILTON, at the Assembly Building, 108 South Tenth street, Philadelphia, Pa., where SAMPLE copies of our publications can always be found.

Traveling Agent.

MR. ROBERT LATTIMORE is now on a canvassing tour for the PRESS through Butte, Colusi, Tehama, Shasta, and Siskiyou counties, and we recommend him to the favorable consideration of our friends.

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1864, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Just and True Economy

The Proprietors of the MINING AND SCIENTIFIC PRESS would call the especial attention of MINING SECRETARIES, TRUSTEE and SHAREHOLDERS, to a few substantial reasons for the publication of Mining Notices in their journal—the first and only important newspaper of its class published upon this coast.

1st The PRESS enjoys a large and permanent subscription list, having a more universal circulation among shareholders and men intimately connected with mining interests than any other publication.

2d. Under the present law the publication of all mining notices on Saturday, in a weekly journal, complies as fully with the statutes as a daily publication. It is generally found to be equally as convenient for secretaries, and decidedly preferable to stockholders who have not time to examine throughout every issue of a daily.

3d. Economy in mining should always be looked upon with favor, and the cost for weekly advertising in the PRESS is less by ONE HALF than the rates of any other journal in this city possessing a respectable circulation.

4th. The publishers of the PRESS, making the mining interest their especial care, take particular pains to assist in the avoidance of errors in advertising. Our print is also more clear and perfect than can be expected in such papers as are hurriedly issued from cylinder presses.

5th. Our "Shareholders' Directory" forms a complete index of all mining notices published in San Francisco, by reference to which shareholders can at once see if their company is advertised, and determine whether the same is inserted in the PRESS or some other paper.

6th. Many copies of the PRESS are bound by prominent professional men, mechanics, secretaries, brokers, shareholders and others, as an important record for future reference, thereby rendering advertising, of every class, in its columns, of peculiar and permanent value.

7th. The benefit of having all mining notices consolidated in one newspaper, for the common convenience of shareholders, secretaries, and others who have occasion to refer to the same, is obvious. With this view we have established our rates at only fair, living prices, believing that a journal like ours, untrammeled by party, creed, or prejudice, is the only medium which can reasonably ask for such a consolidation of mining patronage.

8th. Advertisements in the columns of the PRESS, after their first insertion, are arranged alphabetically. Our present list is equalled only in one instance by that of any other journal. Shareholders, as well as strangers, naturally turn their attention to a mining journal for information concerning the mines and mining matters.

LAST, BUT NOT LEAST.—Our sheet having been recently enlarged to the size of Harper's Weekly) is now only equalled in its dimensions by one mining paper in existence—the *London Mining Journal*. Published in this, the greatest mining field of the world, we desire that the PRESS shall have no superior. We can only realize our cherished object of building up a reliable advocate of the science and business of mining, which will be of just honor and profit to our community, by experience and liberal patronage. The bestowal of such favors only as naturally belong to us, and which it is clearly for the benefit of the mining fraternity to extend, is all that is requisite, and we are confident we shall receive it

DEWEY & CO.,
4v11 Office Mining and Scientific Press.

MINERS

Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.

Gold, Silver and Copper Ores bought in any quantity.

Assay of Ores made by a new Fire Process in half the usual time, an . at half price.

Apply to J. MOSHEIMER,
23v11qy 423 Washington street, San Francisco.

FOR SALE!
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERFect Order. Can be seen running at the San Francisco Pioneer Woolen Factory, Black Point. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
23v11tf 311 and 313 California street.

Machinery.

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste tree gold and amalgam is amalgamated on the copper plates; nat race of grounid mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

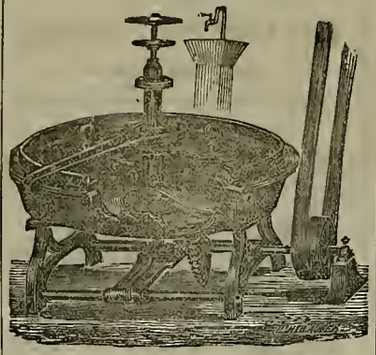
5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD'S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in paris convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quautity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jellerson Mining Company, Bowman's Ranch, Nevada County; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,
BLAKE & TYLER,
Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

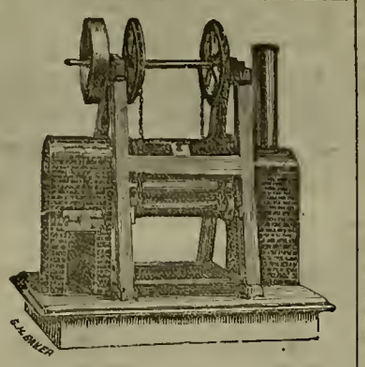
These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. Illustrated in the Mining and Scientific Press, April 9th, 864.] HEPBURN & PETERSON.
nov8 3m*

McCOMB'S
CUMULATIVE POWER PRESS
AND
ARROW TIE.

E. C McCOMB, Agent.
No. 1 Government House, cor. Sansome and Washington sts.
23v10 3m

The Mechanics' Institute
AWARDED A
PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
12v11 410 Market street, San Francisco.

HUNT'S
IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person; and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN
HORSE POWER
For Sawing Wood.

ALSO, THE

Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.

☞ For further Particulars see small circulars. ☜

E. O. HUNT,
No. 23 Second Street, and 108 & 112 Jessie Street, San Francisco. 26-3m

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by TREADWELL & CO.,
3v12-3m Corner of Front and Market streets.

Stevens' Pressure Packing.

Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight,

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they an be seen, at any time, in course of construction.

10df ANDREW STEVENS.

SALMON'S
PROPELLOR AMALGAMATOR
— AND —
Challenge Settler

Has been in use and thoroughly tested, both in California and Nevada, with entire satisfaction to all parties concerned. These Machines are

Made entirely different from any others,

And with the same power will grind, amalgamate, settle and separate, more gold and silver ore than any others now in use. Manufactured at the SAN FRANCISCO FOUNDRY, where Machines can be seen in operation. Address

9v11 J. & W. C. SALMON.

WATER WHEELS!

Equal to the Best Overshot Wheel

POWER PLEDGED

IN EXISTENCE.

LEFFEL'S
AMERICAN DOUBLE TURBINE

Is now manufactured by the Vulcan Iron Works Company, in this city, and orders for the same can be filled immediately. We have a large supply of the different sizes, from 10 inches to 30½. That we may know the proper sized Wheel you require, measure your water in the following way: Take the width of the stream, the average depth and the distance it flows in a minute.

All the Wheels already in use give universal satisfaction. For particulars send for a Circular.

This Wheel is especially adapted to mining purposes. It is light, and can be easily packed into the mountains. Wheels weighing from 100 to 300 pounds, will yield from 10 to 40 horse-power under a head of 25 or 30 feet. They are the cheapest wheel to set up known, as they are so arranged as to produce the greatest power possible from the water used.

Come and see them, or send for a Circular to

LEFFEL & MYERS,
At Vulcan Iron Works, office 137 and 139 First street, San Francisco. 4v11tf

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setlers for themselves, at the PACIFIC FOUNDRY,
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Important to Miners.

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I AM NOW PREPARED TO OFFER TO THE MINING community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A Furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day,

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MITCHELL'S
COMBINED
FAUCET AND MEASURE.

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The invention consists of a combined Faucet and Measure, so arranged that the liquid contents of any cask or other vessel can be drawn and accurately measured without the use of measures or funnels other than such as are embraced in the Faucet itself. While it obviates altogether the use of measures, it operates much more perfectly than the old method of drawing and measuring such liquids as have a tendency to foam up when drawn, as coal oil, linseed oil, etc.

The Proprietor has made arrangements with GALLAGHER, WEED & WHITE, of the California Brass Foundry of this city, for the manufacture of this Faucet, and is prepared to furnish the article or sell territories. Here is a chance for men with small capital to invest in a good business.

Residence, 320 Taylor street, near O'Farrell street.
D. C. MITCHELL, Prop'r.
San Francisco, Aug. 22d, 1865. 10v11-3m

HYDRAULIC MINING AT SUCKER FLAT.

In copying a short paragraph, two weeks since, from the Marysville *Appeal*, in relation to the sale of a portion of the interest in the Squaw Creek Hydraulic Mining Company, located at Sucker Flat, Yuba county, we were inadvertently led into an error. We are now enabled to give a correct report of that transaction.

S. B. Clark sold his interest (four-fifths of the claim) in said company to an association of Eastern capitalists for $170,000, of which sum $115,000 was paid in gold, on the 23d of December last, at the Bank of Wells, Fargo & Co., in this city; $55,000 was paid in currency in New York. The remaining one-fifth of the mine is owned by Col. A. F. Williams, who negotiated the sale of Mr. Clark's interest, and has further provided that the purchasers of that interest shall furnish a working capital of $30,000 in gold, to develop the mine, without any assessment upon his own interest until the $30,000 shall have been fully expended. It is thought, however, that the mine can be successfully worked through an upper tunnel, now nearly completed, and which will be able to furnish sufficient means to drive in the lower tunnel (partially constructed), so as to open the mine at the bottom or bed rock. The Squaw Creek mine is immediately adjoining the celebrated Blue Gravel company's ground, and supposed to be equally rich, if not richer, than that celebrated mine.

Both these mines are located on Sucker Flat, a few rods to the north of the road from Marysville, where it passes through Smartsville. The district comprises the most extensive and best-paying hydraulic diggings in the State or the world. The most of the work hitherto done here has been confined to what is called the "upper bench," which rests upon a thick bed of pipe clay, below which, where the gravel has been reached, it is found much richer than above. There are some fifteen companies now at work there—the Blue Gravel company being the only one which has got well to work in the lower bench.

The deposit of gravel is from 100 to 160 feet deep, containing fine gold from top to bottom, and by washing large quantities with comparatively little expense, the net profit to the miner is large. We may instance the Blue Gravel company, which, in about seventeen months, took out $405,000; of which amount they paid to their stockholders $310,000, requiring but $93,000 as working expenses. Their claim is very extensive, and many years will be required to work it out.

The Squaw Creek mine is equally extensive, and not less than twenty years will be required to exhaust it. The purchasers are among the wealthiest capitalists of Pennsylvania. Work by the new company has already commenced, under the superintendence of Col. Williams who, we presume, will be continued in charge by his Eastern associates. It is gratifying to note that the attention of Eastern capital is being called to the worth of our deep gravel workings, as a source of permanent and profitable investment.

PLENTY OF WATER.—The late heavy rains have dispelled all apprehensions of a drought among the farmers, or any lack of water for mining purposes in the mountains. The quantity of rain in the interior has exceeded 20 inches—in this city about 15½ have fallen. These amounts are about the usual proportions of water which fell in the interior and on the coast of California.

THE HUB.—The Iron Mountain of Missouri is said to be exactly in the geographical centre of the United States. It is an almost solid mass of specular iron ore, rising from a level plain 260 feet. Its base covers 500 acres. The ore contains sixty-seven per cent. of iron. It may very appropriately be called the Hub of the Union.

GOLD YIELD OF OREGON. — The Dalles *Mountaineer* gives tables, showing that the gold yield of Oregon is $6,450,000. The miners of Southern Idaho are not included.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

MONEY BY MAIL.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid.

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

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4v12tf

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Refers to R. G. Sneath, O. W. Gibbs, Thos. Hill.

4v12 I. WILLIAMS, 413 East street.

ANNUAL REPORT

—OF THE—

Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLature of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS.

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire.....$12,973,949

Marine..... 484,408

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19, 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheesman,	Chas. Mayne,
Adm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Anson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer.	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis.
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.

4v12-3m

OFFICE OF THE COUNTY CLERK OF THE CITY AND County of San Francisco, State of California.—In County Court.

In the matter of the application of LA MORRONENA SILVER MINING COMPANY, for Order of Dissolution.

Notice is hereby given, pursuant to law and an order of the Hon. SAMUEL COWLES, County Judge of said City and County, this day made, that La Morronena Silver Mining Company, a corporation duly organized and doing business in said City and County, has made application, by petition duly filed, that said Company be disincorporated and dissolved, and that said application will be heard by and before the Hon. SAMUEL COWLES, County Judge aforesaid, on the seventeenth day of February, A. D. 1866, at 10 o'clock A. M., in the Court Room of said County Court, in the City Hall Building of said City and County.

Witness my hand and the Seal of said County Court, this eighteenth day of January, 1866.

{ Seal and U. S. Rev. Stamp, 50c, canceled. } WM. LOEWY, County Clerk. { By J. NAPHTALY, Dep. Co. Clerk.

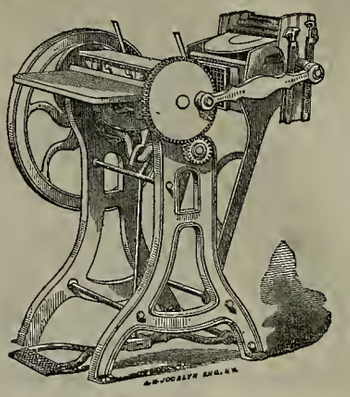
3v12-4w

JOB PRINTING

—FOR—

THE PEOPLE!

Mining and Scientific Press



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MISCELLANEOUS BLANKS,
BLANK BOOKS,
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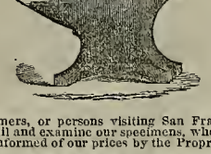
CARDS,
CIRCULARS,
MINING REPORTS.

Orders from the interior will receive prompt attention. We shall take care to secure correctness in all work executed for parties out of town. Small packages can be forwarded by mail at small expense.



City customers, or persons visiting San Francisco, are invited to call and examine our specimens, when they will be politely informed of our prices by the Proprietors.

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Mining and Scientific Press Patent Agency, Newspaper and Job Printing Office.

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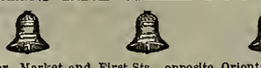

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For Mining purposes, Iron Steam Pipe furnished with Fittings, &c. Coupling Joints of all *sizes*. Particular attention paid to Distillery Work. Manufacturer of "Garratt's Patent Improved Journal Metal."

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The following Steamships will be dispatched on the following named days.

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February 10th—GOLDEN AGE.....Capt. E. L. Farnsworth. Connecting with Atlantic, Capt. Maury.

From Folsom street Wharf

At 11 o'clock A. M., punctually to the hour,

For Panama.

Passengers will be conveyed from Panama to Aspinwall by the Panama Railroad Company, and from Aspinwall to New York in the splendid steamships of the PACIFIC MAIL STEAMSHIP COMPANY.

Steamers of this line will be dispatched the 10th, 19th and 30th of each month. When these dates fall on Sunday, the steamer will leave on Saturday preceding.

Cabin passengers will be berthed for Atlantic steamer.

A Baggage Master will be sent through each trip.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For merchandise freight apply to Wells, Fargo & Co.

OLIVER ELDRIDGE, Agent.

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Constitution and By-Laws

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THE Memphis *Bulletin* claims 50,000 as the present population of that place. Its population before the war was but 12,000.

Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors. | SAN FRANCISCO, SATURDAY, FEBRUARY 3, 1866. | VOLUME XII. Number 5.

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The Gold Mines of Siberia.

The gold mines of Siberia are of immense extent, and undoubtedly of great richness. The opening of the mines, by a late Imperial decree, to the public, or at least to Russian subjects, the probability that the improvements in gold mining in California will in time be introduced in Siberia, and the increase in the trade of Northern Asia, with the establishment of the telegraph and ocean steam lines to connect that continent with America, give an interest to everything relating to the Siberian gold fields. We therefore give the following from an abstract of a lecture by Professor W. W. Smith, published in the London *Mining Journal*:

"It was not until the early part of this century that the Governor of the district was induced by a merchant to send an expedition in search of gold. The expedition was sent, but it was unsuccessful, and nothing was done further in the matter until the year 1816, when a peasant, out shooting, killed a grouse, which he presented to the Governor. When it was opened to be cooked, in its stomach were found pellets and grains of gold, and from this curious coincidence dates the present energetic working of the gold mines of the Altai.

The mines are situated near the town of Yeniseisk, towards the Eastern Altai Mountains. The gold occurs, for the most part, in a peculiar suspicious-looking sand, at the foot of the mountains.

The thickness of the layer of sand is very variable; the upper part of it will not contain any gold, and only in the bottom two or three feet will it be auriferous. The average yield of gold is about one part in five thousand of dirt. The sand is washed in machines exactly resembling the Cornish tin streamers tye.

As to the profits of mining in this district, it will be better to mention a special instance, in which a piece of ground was tried, 60fms. long and 40fms. wide. The overburden of this piece was 160 cubic fms. and the sand to be washed was 120 cubic fms. The time required to conclude the undertaking was about eighty days. The hands required to accomplish the work were—1,130 full shifts of men at 9½d. per day, and 4,000 half-shifts at 6d., which will give as expenses in wages £144 16s. Materials were as follows: Bar iron, £3; charcoal, £15; medicine, £6 9s.; general expenses, £2 0s. 5d; making a total cost of £171 5s. 5d.

The value of the gold obtained from the sand was £1,182, and on deducting from that sum the cost of working, the sum of £1,011 14s. 7d. remains as profit to the owners of the mine. From this it will be evident that when the supply of gold is, as here, tolerably good, the speculation is very remunerative. Adventurers must, however, remember that, although the foregoing is an average profit, there are times when the results are not so satisfactory. The men are paid, not by the day's work, but for a given task, and they are not paid at the mines, but at the town, situated some distance from them. The season during which the mines can be worked is limited. Of the character of the miners not much that is favorable can be said. Their state of education is very low, and but few can read or write. Many of them are convicts, and so the community is not of the most peaceable character. But there is, for even the poorest, a chance, by steadiness, to recover their lost position, and an opportunity offered of getting out of their depraved state."

HENDY'S IMPROVED PRATER CONCENTRATOR.

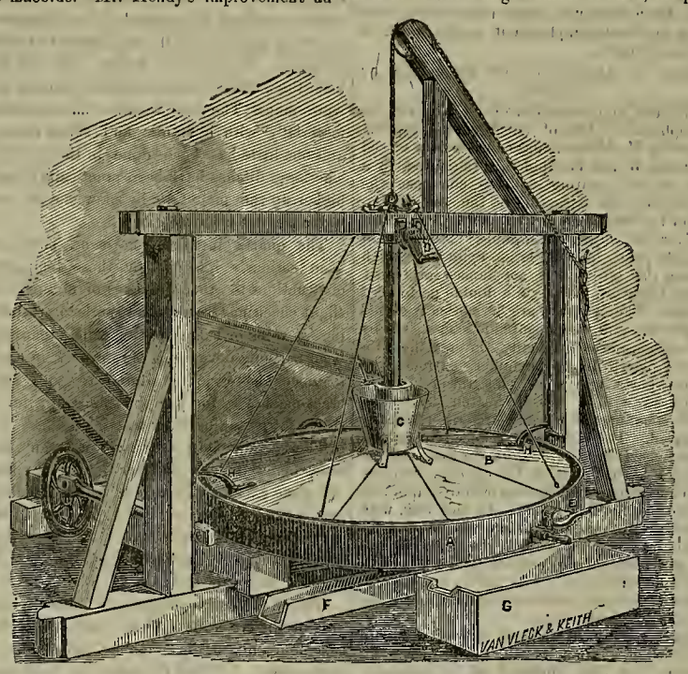
We give annexed a representation of Hendy's improvement on Prater's sulphuret concentrator. The improvement consists in an arrangement for discharging the sulphurets, at intervals as frequent as may be desirable, without stopping the machine. The mode of feeding this machine, through the hopper C, and thence conducting the sands over the distributor B to be deposited about the periphery of the pan, is familiar to most of our readers. The machine, it will be recollected, has its discharge of water at its centre, while the sulphurets gold and amalgam have heretofore had to be taken out by hand from the circumference; to do which it was necessary to stop the machine. Mr. Hendy's improvement admits of this being done while the machine is in motion, and in fact by means of its motion, slightly varied, by inclining the pan from its horizontal position, just sufficient to throw the sulphurets to one side, when, by opening the discharge gate E the sulphurets readily run off and are caught in the box G; the amalgam and quicksilver may, with the same facility be discharged through the plug which is placed just below the sulphuret discharge gate. Below both of these discharge openings is a horn-shaped trough or bowl, not exhibited in the engraving, for the purpose of receiving the amalgam and quicksilver, and preventing its becoming mixed with the mass of sulphurets in the box G.

This change in the position and motion of the pan is readily accomplished by turning the crank handle D a few times, which, by a screw, inclines the upright shaft of the pan, and of course the pan itself to the necessary angle for accomplishing the discharge. The motion of the pan, when so poised, is very much like that given by the miner to the ordinary pan, when "panning out."

Mr. Hendy has also made a still further improvement, which consists in a slight alteration in the shape of the pan itself, whereby its discharge of sulphurets can be made constant and self acting, the directions for accomplishing which are given as follows:

First, set the pan level, by its inner rim; *second*, while in operation keep the Pan A half full of sulphurets; *third*, open the gate E sufficient to discharge the sulphurets, as they may accumulate over the amount above mentioned; *fourth*, the step of upright shaft to be so fitted in the timber as to allow it to adjust itself to the connecting rods; *fifth*, the crank shaft to make 225 revolutions per minute.

This Concentrator appears to be meeting with very general favor throughout the mines. It is in use at a large number of mills, the proprietors of which unite in testimonials in its favor. Two of these Concentrators were ordered recently by Messrs. Goddard & Co., of this city, for their mill (Independence Mill) near Sonora, Tuolumne county, which are now being fitted up at the Pacific Foundry. These parties have extensive experience in quartz machinery, and have concluded to use these Concentrators in preference to others.



Messrs. Bigelow & Bro., of this city, who are now using two Concentrators at the Coney Mill, Jackson, Amador county, have also given further orders to Mr. Hendy.

We have also other and especial testimonials in favor of the improvements of Mr. Hendy, which may be readily attached, with little expense, to Prater Concentrators, which have heretofore been worked without them. This machine, with Hendy's improvements, may be seen in operation at the Golden State and Pacific foundries in this city.

There is scarcely a farmer in the State but has plowed up new land in addition to that of last year.

PHARAOH'S SERPENTS.

In 1821 Prof. Woehler, then a young man at Heidelberg University, discovered that a mass of sulpho-cyanide of mercury, if set on fire, would swell up enormously, enlarging its volume many fold. When Prof. Joy was attending lectures at Heidelberg, he saw the experiment, and has since been in the practice of exhibiting it to his class at Columbia College. Recently, a very ingenious Frenchman has adopted the plan of putting little cones of the substance into boxes, and selling them for a franc apiece, great numbers of which are sold. The cone, about an inch in hight, is placed on a plate and lighted at the top by a match, when it begins to burn slowly with a pale flame, and to swell, presenting the appearance of a serpent crawling from out the plate and writhing in painful contortions; this is continued for perhaps a minute, when the crooked serpent has reached a length of about a foot, with a diameter of half an inch. In the process, nitrogen is driven off, with a very little sulphide of carbon and vapor of mercury; the mass remaining is sulphide of mercury.

The affair furnishes a very pretty philosophical toy. It has been introduced as such, to a limited extent into New York; but has not yet been introduced into this city. Dr. Lanszweert, who resides on Silver street, however, has received several from a friend, and has now at his office one of the "Serpents" formed as above, which is quite a curiosity.

As these things are likely to be soon introduced into this city, it may not be inopportune, even at this early day, to caution the public against the injurious effects produced by burning the toy in close rooms. Persons cannot be too careful respecting the inhaling of even small quantities of mercury vapor, which is thrown off in considerable quantity during the combustion. Miners will understand the deleterious effects of inhaling such vapors. But there are various compounds of mercury, of which this is one, which are even much more deleterious to inhale, than mercury in its ordinary state. Two German gentlemen, who were in a London laboratory, in the preparation, for a scientific purpose, of volatile organic mercury compounds, were recently poisoned by the accidental absorption through the lungs or skin of very small quantities of the vapours of these substances. The symptoms characteristic of this form of mercurial poisoning are of the most painful and distressing kind; the first patient died in a state of mania shortly after his admission into the hospital; and the second, on whom the effect became first perceptible three months after he had ceased to work with the substance, now lays in a hopeless state of idiocy. In burning these serpents the greatest care should be taken not to inhale the vapor; and the burning should never be done in a close room.

Free Chilean Ports.—The Spanish blockade of Chilean ports has caused the Chilean Government to throw open certain other ports to trade, free from all duties. This is a bright stroke of policy, which will be very bothersome to the blockading power of Spain. It will let out much copper ore for the English furnaces, and bring in needed supplies of foreign manufacture.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

BISULPHIDE OF CARBON.

BY DR. LANSZWEERT.

[Conclusion.]

RECTIFICATION OF BISULPHIDE OF CARBON.

All the processes described in the last number of this paper produce an impure article, containing sulphnreted hydrogen, and an excess of sulphur. M. Boniere rectifies thie compound in a series of distillery apparatus, heated by water-bath. This apparatus contains solutions of caustic potesh, selts of lead, copper, iron, etc. The vapors nf the bisulphide, in pessing through them, loee their sulphnreted hydrogen and other impurities, and are then condensed in a pure state.

PROPERTIES OF BISULPHIDE OF CARBON.

The pure bisulphide of carhon is a colorless, thin liqnid, thinner than water. Its specific gravity is 1.273; very volatile, and hoils at the low temperature of 108 Fahr., evaporates rapidly at the ordinary temperature, producing an intense cold. It ie of an ethereous and garlic-like oder when pure. When impure, it is extremely fetid, like rotten eggs. It is insoluble in water, hut soluble in all proportions in alcohol and ether. It dissolves phosphorus.

By reason nf this property it has been used in the rectification of amorphous phosphorns, to isolate the ordinary phosphorus of this latter product, which, notwithstanding the continned high temperature required, is always contaminated with a small proportion nf ordinary phosphorus. The eolubility of phosphorus in bisulphide of carhon must be an important improvement in the manufacture of chemical matches. The reduction of phosphorous to its minimnm proportion, also to an infinitesimally minute division, is obtained in this agent; but in its use it must be handled with the utmost care and precaution, *as a solution of phosphorus in bisulphide of carbon is liable to spontaneous combustion*, which may produce the most fearful accidents, es has heppened to the author of these notes in preparing the ahove solution for said purpose.

It dissolves, also, snlphur, iodine, oils, camphor, rosins, hitnminous and aromatic snhstancee, ie useful in the preparation of resinous varnishes, heoanse it evaporates so rapidly in the atmosphere. It is very comhustible, and hurns with a blue flame, producing carhonic and eulphurous aoid gas. The vapor of bisulphide of carbon, mixed with atmospheric air, constitutes a dangerous explosive compound. This property, together with its great volatility, reqnires the most nareful precautions in handling and etorage. The different operations for ite mannfactnre ehould he generally conducted in eeparated and well-ventilated buildings. These precautions are the more to he observed, as the inhaling of thie agent is extremely deleterious to the workmen, producing general debility and the loss of memory. The use of a eolution of narhonate of iron in carhonated acid water, is reoommended as an antidote for these deleteriove effects.

APPLICATIONS OF BISULPHIDE OF CARBON.

Throngh its extraordinary solvent power, this compound has ohtained in industry a large nnmher of applications. Its firet use was the snlphnration or vulcauization of indian-rubher, according to Parker's process, lately perfected hy M. Peromel and Gerard. It is also nsed as a solvent for gutta peroha ,and, as already etated, for the manufaoture of amorphous phosphorns.

Squire recommends it in plaoe of ether, as a solvent for quinine and other vegetahle alcaloids.

An important application of this agent hae heen pateuted hy M. Deiss, for the extraction of the fatty matters from animal and vegetable tissues; also for the preparation of the bones to he nsed for the manufacture of animal charcoal. M. Deiss has established large manufactories for this object—one in Paris, another at Brussels, and one in London. Eight thousand kilogrammes of fatty refuss are daily treated in these manufactories, and the quantity of grease and fatty substances thus recovered is over 600 kilogrammes daily. A fourth establishment by Deiss, under the firm of Daninos & Co., is situated at Pise, where, in forty-eight hours, not less than 35,000 kilogrammes of pressed olives are treated; giving, at each operation, no less than 3,400 kilogrammes of of olive oil. The fatty matter ohtained by bisulphide of carbon contains all the properties sscured by pressure; in some cases, according to M. Deiss, it is richer in stearine.

Thus the oil, which, after many expressions, is still left in the olive ceke, when subjected to the ection of bisulphide, is decidedly richer in stearine; and for this reaeon is preferable for the manufacture of soap. To give an idea of the importance of the extraction of the fatty matter of the refuse, according to M. Deiss, the quantity of oil lost annually is considered above 3,000,000 of killogrammes at Marseilles, and he estimates the quantity lost in the departmeut of Calvados and Nord, ae double that at the former place. According to M. Moussu, bisulphide may he used for tbe extraction of bitumen and sulphur of certain rocks which contain the substances in too small quantities to he extracted hy other means.

To extract essential oils and aromatic principles of seeds, the solving power of this agent could be used in place of an hydraulic press, and Millon hes applied this power for the extraction and isolation of tbe perfume of flowers. At the London Exhibition of '62, some very good samples obtained hy this agent were presented hy Piver, of France.

According to the above, here is certainly an inducement for California investment. The waste of fatty refuse in this city alone is not only considerahle, but also the extraction of olive oil and the manufacture of Castile soap might be made profitable, thus relieving us from the necessity of such importations, and giving profitable employment to thousands of our own people.

METHOD OF APPLICATION OF BISULPHIDE OF CARBON.

Different appliances have been invented for its application. One of most general application is by M. Moussu, and consists of a closed reservoir, for the bisulphide, surmonnted by a vase or refrigerating coil, to condense the vapors after the extraction of the soluble matters of tbe substance in treatment. From this receiver the liquid bisulpbide is conducted through pipee in two large cylinders, which contain the hituminous substances or bones. These latter are placed on a double perforated bottom. The cylinders are hermetically closed on the top, and the bisulphide, coming in by the bottom, raises gradually through the substances placed in the cylinder, extracts the soluble parts, and then runs through tubes connected with a vessel heated by eteam, which is connected with a refrigerator already described. The bisulphide, reduced to vapore, is condensed in the refrigerating coil, and repasses a second time in the cylinder, whereas tbe bones or other substances operated upon are retained in the firet vessel. In this way, with very little loss, the bisulpbide can be used indefinitely. M. Moussu, with the above apparatus, has been able to extract twelve per cent. of bitnmen from rocks, whereas by the old process of distillation no more than seven or eight per ceut. were obtained.

The quantity of the oil extracted by bisulphide of carbon is 40 to 50 per cent. greater than that obtained by the ordinary method of expression, and the residue cakes are of a more nutritious quality, hecanse they retain intact all the azoted principles of the seed. It is true they are not fit for fatting. Bisulphide of carbon, well purified hy rectification, and aromatized with a few drops of essential oil, is an excellent detersive for the house, for any grease or oil spots.

M. Boniere has constructed an apparatus for the extraction by tbis agent of the aromatic principles of pepper, spices, and of other condiments, such as onions, garlic, etc. These aromatic priuciples are then mixed with table-salt, gum, milk, etc., and eold under the name of *soluble spices*.

The venemous proprieties of the bisulphide have been utilized for the destructiou of insects. Wheat and other cereals, according to M. Dozere, can be easily secured and freed from them by being kept in a close room, and infused with a small quantity of this agent—30 grains for ahout 200 pounds. The bisulphide not only kills the insects, but also their larvæ and eggs. The grain, so preserved, when exposed to the air, losee all traces of the bisulpbide.

One of the moet curious applications of this agent, related at the Exhibition of 1851, is its use for silvering by galvanism. A few drops of thie compound added to the silvering solution, gives a very brilliant deposit of silver. It appears that this fact has been simultaneously and independently discovered by M. M. Elkington and M. Lyons of Birmingham.

M. Seyfferth has constructed a steam engine moved by the vapors of bisulphide of carhon.

PRESENCE OF BISULPHIDE OF CARBON IN GAS FROM COAL.

Bisulphide of carbon is sometimes found in operations where its presence is not sought for or expected. In the manufacture of illuminating gas from coal, all the conditions are found for the production of this agent, which contribute a very annoying and deleterious impurity. It can eesily be detected, when so found, by passing the gas through an aqusous solution of potash, which takss up the sulphureted hydrogen; then through an alcoholic solution of potash, which absorbs the bisulphide of carbon, the same being converted into xanthate of potasb.

Tbis salt in the solutions of salts of copper, gives the very characteristic yellow precipitate of xanthate of copper, and a brown or black precipitate, by boiling with solutions of salts of lead. A great many processes bave been devised to destroy this product in the ges. According to James Young, the process of Dr. A. Smith, applied in the gas works of Littleborough, has proved a complete success.

[Written for tbe Mining and Scientific Press.]

Letter from Nevada.

Editors Mining Press:—The new year opens upon us with omens of promise, and it needs not the ken of a prophet to predict that during tbe next twelve months unusual prosperity will attend those who are actively developing the mineral resources of Nevada county. The interest created in quertz mining in 1865, will not culminate in a relapse, or a failure in 1866. The explorations made—if they have not greatly increased the production of gold—have demonstrated the important fact, that the "wealth of the hills" is here, and can and will he revealed hy the judicious outlay of capital, and the employment of skillful labor. The present winter, thus far, hae been the coldest ever experienced here by the white man. The cold weather has interfered materially with hydraulic and sluice mining, and but little has been done in this vicinity. The large ditches have been practically closed, higher up the mountain, by snow and ice, and water has not been plentiful.

The quartz interests, however, have not been seriously impeded by these temporary obstructions to other branches of mining. A slight check has been given to surface prospecting for veins or ledges, hut on claims that have been partially developed, the owners in many instances have not hesitated to go on and erect machinery for pumping, hoisting, etc., in spite of frost, rain, or snow.

The Nevada Quartz Mining company, two miles helow the city, on Deer Creek, are taking out some excellent rock, and their 12-stamp mill is running day and night. The ledge from which they ohtain their rock has been worked for eight years, and still they have not yet reached the water-level.

The Providence company, on the opposite side of the creek, have been engaged for the last four months in opening and exploring tbeir mine. I visited this mine last week, and was surprised to see the amount of labor that had been expended in the several tunnels, in searching for better pay ore, and in the general development of the miue. In the lower tunnel, at a distance of about 400 feet from the entrance, a fine vein two feet wide has heen struck, from which ore is now heing taken. Midway in the upper tunnel, which is 700 feet in length, two stratas of rock have been discovered, in running a side drift at right angles with the main ledge. I saw some beautiful specimens obtained from these stratas, and the indications are that the rock now heing taken out by the superintendent, Mr. Dingley, will pay well for crushing. A contract has heen let to parties to take out 1,000 tons of rock from the upper portion of the claim, delivering it at the mill. The mine is now in splendid condition for the extraction of a large amount of ore daily. There seems, however, to he one obstacle to the success of the company—a very common one, too—and that is the want of means necessary for a vigorous and and thorough development of the mine. To those not familiar with the ups and downs of quartz mining, it appears strange that a ledge fails to pay when there is an abundance of quartz in sight; and when a company, nnder such circumstances, is obliged to increase its indebtedness by further explorations for pay rock, stockholders and novices in mining naturally enough conclude the enterprise a failure, and are in favor of stopping work, or selling out to an "Eastern company." As long as a claim pays well, everything goes on swimmingly, and the one owning the most stock is the most exultant; but let the vein be lost, or poor rock take the place of the dividend paying ore, and they are sick at heart, and throw up the "sponge" at once. I make these remarks, not as applicable to all companies who temporarily fail; but they will apply to not a few.

A recent crushing of 150 tons of rock from the Harvey ledge, at the head of Wood's Ravine, at tbe mill of the Nevada company, yielded $20 per ton. This ledge is supposed to be a continuation of those belonging to the Nevada and Providence companies. Some ten years ago, a rich pocket was struck on the Harvey ledge, and thirteen tons of rock yielded $5,000. The claim is considered very valuable, although without mill or mechinery of any kind.

A recent crushing of 100 tons of rock from the Burrington company's claim, in Willow Valley, gave $3,000, or thirty dollars per ton. About 300 tons, altogether, have been teken from the claim, yielding a trifle over $9,000. No machinery of any kind has been nsed on this ledge, and tbe rock has been extracted from the surface downwerd, to a depth of about forty feet. The ledge varies in width from one to three feet, and pays with a regularity unusual for gold-beering qnartz. The present owners contemplate erecting hoisting works on it immedietely.

The result of a recent crushing of ehout thirty tons of rock from the Carr & Dowd ledge, near the Burrington, gave $600, or twenty dollars per ton. Some ten or twelve ledges are now heing prospected in Willow Valley, with good prospects of ultimate success, and next summer will prove that locality second to none in this vicinity.

The Illinois ledge, situated just ontside of the corporate limits of the city, an old claim that has not been worked for years, was recently purchased by a French company in San Francisco, and is now being thoroughly prospected.

N. R. Ferre, has sold three-fifths of his interest in the California mine, near this city, to J. M. Pattee & Co., of New York city, for $6,000. The two-fifths retained by Mr. Ferre is to be unassessable. Heavy machinery will he placed on the mine as soon es it can he done. The mine was worked years ago down to tbe water level, with success, and no douht is entertained bnt, hy sinking below the present level, it will be found more valuable than ever.

The Pennsylvania company's claim and mill, near Sugar Loaf Hill, was purchased by a few of our citizens, having sufficient capital to develop the mine thoroughly. This claim is believed to he one of the best here, and the rock has always paid well, but the management of the affairs of the old company was so inefficient, and there was such a lack of harmony among the owners, that the sale of the mill and mine became a necessity.

Quartz mining on Little Deer Creek, or near it, is now being carried on to a greater extent, and witb more positive assurances of success, than heretofore. The French company I have previously mentioned, have just completed their steam hoisting works on the General Grant ledge, and are now taking out good pay rock. Immediately above the General Grant, is located the Star ledge—a comparatively recent location. A few tons of rock from this ledge, last summer, taken out from near the surface, paid well, and a tunnel is now heing run, to tap the ledge at a depth of sixty feet from the surface. The Union ledge, higher up the creek, was purchased last spring by a New York company, and a heavy outlay of money has heen made, in order to test the extent and value of the mine. The incline is now down ahout 200 feet, and good ore is heing taken out at tbat depth. Tbe incline is fifteen feet wide—sawed plank and timbers are used for making it substantial and safe—and for size and beauty of construction, it is not surpassed by anything of its kind in this State. The entire hoisting works, machinery, huildings and incline, I am informed, cost $30,000.

The Star Spangled Banner mine, distant but a few hundred yards from the Union, has been, and is still, attracting the attention of capitalists, quartz miners and quartz prospectors, more than any other mine in this vicinity, and perhaps more than any other in Nevada county. It is now owned by four gentlemen, residents of this city, viz.: Messrs. Kidd, Tisdale, Stiles, und Cbandler. Tbeir incline is down 120 feet, or seventy feet perpendicular. The ledge at this depth is six feet wide, and pays from $30 to $50 per ton. The company are now erect-

ing steam hoisting works over the incline, and will soon be able to raise fifty tons of ore daily. They have nearly all their machinery on the ground for a 10-stamp mill, and expect to have it ready for crushing inside of sixty days. Their machinery is powerful enough to drive twenty stamps, which number they will be able to run when necessary.

On Gold Flat, considerable activity prevails. The New York company (formerly known as the Sneath & Clay), are taking out a large quantity of good rock, and their 12-stamp mill is running night and day. Messrs. Kidd & Tisdale are sinking on the Mohawk ledge for another level. On account of the large amount of water they have to contend with in their incline, they intend procuring more powerful machinery for pumping and hoisting.

The old Whigham claim has recently changed hands, and its present owners are actively engaged in preparations for sinking below the old levels, in order to more fully test its value.

Several large ledges have been discovered within the last ten days, in the vicinity of Gregory & Co.'s sawmill, on the Red Dog road, five miles from Nevada. One of them is twelve or fourteen feet in width, and prospects at the rate of $15 and $20 per ton.

The Cement mills, in Little York township, which are worked by water power, have been idle most of the time this winter, on account of the extreme cold weather; but the prospects are that next summer the cement branch of mining will prove itself quite as extensive and profitable as quartz mining.

NEVADA.

Nevada, January, 1866.

[Written for the Mining and Scientific Press.]

Letter from Grass Valley.

EDITORS PRESS:—On Thursday morning of last week, after due consultation, I visited the North Star, better known in this vicinity as French lead, situated some two miles out of town.

On my return thither, I passed the mill and mine of the Rocky Bar company, Mr. A. B. Brady, superintendent. Here I encountered Mr. Poyzer, your local agent, who is employed by this company to keep a general look-out after their gold, (showing, by the way, that they agree with you in your estimate of his integrity,) by whom I was introduced to Mr. Brady, who invited me to call on my return and go with him through the mine.

A mile further on brought me to the

NORTH STAR.

This mine has been worked for twelve years, half of that time by the present owners. The ledge is situated in hard trap-rock, its average strike being east and west, with a dip of twenty-seven degrees to the northward. The thickness of the vein varies from six inches to six feet, averaging twenty inches. The workings of the mine extended to a depth of 668 feet, three working levels being now open, and working. The present superintendent is Mr. Wm. H. Rodder, one of the owners of the mine, who showed me the mill and works above ground, while another of the owners, whose name I do not now remember, went with me through the underground works.

The mill consists of nine stamps, of a somewhat antiquated form, but which seem to do as much work and as well as any of the more modern mills. The method of amalgamating and saving sulphurets is the same as that used in the Eureka mill.

The mine is drained by an engine of sixty-horse power, thirty-four inches stroke, and twelve inches diameter of cylinder, built in in Grass Valley, from designs furnished by Mr. R. himself. The pumping and hoisting machinery throughout is of the best and most perfect character, having been built under the immediate eye of the superintendent, and from his designs. It is intended in the spring to erect a larger mill, as the mine is now sufficiently developed to keep a larger one at work. After dining at the hospitable table of Mr. Ursn, I returned through a snow-storm to Grass Valley, and was present at the mass meeting of miners held for the purpose of electing delegates to the Convention at Sacramento. The particulars of this meeting I have already sent you.

On Monday I set out for Rough and Ready, four miles west of Grass Valley, and at that time below the snow-line, thinking that on this account it would prove a more desirable location for me than Grass Valley, at least for a day or two. This place was formerly noted for very rich placer mines, but most of these have either been worked out, or are consolidated in immense claims of hundreds of acres, and Rough and Ready is now "celebrated principally for its numerous undeveloped quartz ledges, for having one of the best hotels (Walling's) on the Bear River and Nevada road, and for the enterprise, great expectations, and impecuniosity of its inhabitants.

For the purpose of developing the ledges in the neighborhood, and which assays of rock had shown to be rich, Mr. A. A. Smith, who was a member of the last Legislature, erected, soon after his return, a 4-stamp mill, but owing to some defect in its construction, or peculiarity in the rock, he was unable to save a reasonable percentage of the gold indicated by assayers, and the mill had been allowed to stand idle for several months. Last autumn, however, he made arrangements with S. C. Bradshaw, Jr., formerly of the Pacific Metallurgical Works at the Bay, who came up and took charge of the mill, thoroughly refitting every part. It now consists of a battery of four stamps, with capacity for eight, two of Norton's and one Varney pan, and one of "Teal's Amalgamating Tubs," the whole driven by a water-wheel, which would furnish power for a mill four times the capacity of this. Every part of the machinery is constructed in the best manner, and it is to be hoped that the experiments will be more successful this time than before.

On the pans Mr. B. has laid his improving hand, to such an extent that the inventors would scarcely know them. He has taken out the inner portion of the Norton, and increased its depth some four inches, by the addition of a wrought-iron band, thereby greatly increasing its capacity as a grinder, which is its principal use in this mill. The Varney is made to charge and discharge continuously, by openings in the side near the bottom, and in the center of the top, like the Baux & Guiod. Teal's Amalgamator consists of a wooden tub with a cast-iron bottom, on which revolves a flat muller, having radial openings through which the pulp passes down between the grinding surfaces. It is the invention of a gentleman of Virginia City, Nev., and has not yet been fully tried.

In the evening a mass meeting of the miners of the district was held at Walling's Hotel, of which Mr. Ault was Chairman, and Mr. McGuire Secretary. The resolutions adopted by the Grass Valley miners were indorsed.

On Tuesday I returned to Grass Valley, and the next day I spent comfortably housed. Yesterday I visited the Houston Hill mine, and to-day the Lucky.

THE HOUSTON HILL MILL

Is located one and half miles southeast of Grass Valley, and is owned by Mr. A. H. Houston, of San Francisco, Mr. Morgan of New York, Captain Lee, and several others whose names I have forgotten. The superintendent is Mr. Wm. Clift. The vein is opened by an incline to a depth of over 300 feet, though the lowest working level opened is 260 feet. The vein is only from eight to ten inches in thickness, but owing to the uniform richness of the quartz it is one of the best paying mines in the district. The last crushing averaged nearly $189 per ton, and Mr. C. thinks that the ore now coming from the mine is still richer.

THE LUCKY.

This famous ledge, located about two miles east of town, is owned by a number of residents of Grass Valley and Nevada, whose names have been published so often that I will not repeat them here. The superintendent is Mr. W. R. Taylor, a practical miner and a thorough gentleman, who very kindly showed me through the works, and treated me throughout with the most polite attention. This ledge was discovered to be of great richness something more than a year ago. It lies in a kind of greenstone formation, and is very irregular in size and position. In many places in the drifts it is six feet in width, while in others it is but a few inches. Its average thickness is about two feet. Its general direction is east and west, with an average dip to the south of fifty-five degrees. The incline is down 180 feet, having been driven straight with an inclination to the perpendicular of forty-five degrees. It will be found necessary, however, to change the direction of the lower part, as the inclination of the ledge is much steeper than was at first supposed. The hoisting works were built at Grass Valley, and are fine specimens of workmanship. The engine is of ten inches diameter of cylinder, and twenty-four inches stroke, estimated at 25-horse power. The company have hired an 8-stamp mill, situated near their mine, where they have crushed over 2,000 tons of quartz, which has paid an average of $30 per ton. Everything about the mine is done in the best and most substantial manner, showing that the "Lucky boys," as they are here called, intend to have a first-class mine if it is to be had.

SAN FRANCISCANS IN TOWN.

There is, and has been, quite a sprinkling of San Franciscans among the guests at the Exchange. Mr. Hunter is here putting up concentrators at the Ophir and Eureka mills. Young Baux is here looking after the interests of the Baux & Guiod amalgamators. Howland of the Miners' Foundry was here last week, on his way to and from the Star Spangled Banner claim, where that establishment is erecting machinery. The well-known mining expert, Capt. Atwood, was also here last week, smiling as pleasantly as ever; but what was his particular object gossip has not yet reported. I have also met several acquaintances in Nevada, among whom is H. L. Hopkins, inventor of the Novelty Amalgamator, who is superintending the erection of Captain Kidd's new works at the Star Spangled Banner claim. May they come often. The people are glad to see them, as they are a sure indication of increasing prosperity of our mines. Yours, D.

Grass Valley, Jan. 19, 1866.

[Written for the Mining and Scientific Press.]

Letter from Benicia.

MESSRS. EDITORS:—When I left your city last week, to take a prospecting tour to the mountains, I promised to pencil some hurried notes by the wayside for the PRESS, or rather for your own private ear, to be pruned, cast aside, or interwoven, as your judgment might dictate. I feel almost discouraged, when I find myself so differently situated from others in their quiet studios—surrounded with all necessary book-conveniences and appliances for epistolary correspondence; you, who have often written on the car or in the noisy bar-room, will fully appreciate the difficulties. Besides this, in turning "prospector" I was entering upon a business to me comparatively new and untried. My heart was not very light, I assure you, and my purse was lighter. But don't imagine that I have no gold in the *banks*, or in their *branches*; I certainly have as large deposits in some of our "branches and in their banks," as any other miner, and am as rich in feet as a centipeda. The truth is, it is somewhat dangerous, these hard times, to travel with money about you—you might get robbed. Miners and prospectors, like myself, are not selfish. Neither are you, and others who delve deep for truths—for truth's and science's sake—and for their effects upon the general good. In a pecuniary sense, your reward is small. You labor assiduously from day to day, to gather facts bearing directly upon the material prosperity, and indirectly upon the intellectual progress, not merely of our own coast, but of the whole human race—shedding light upon our vast mining, petroleum and mechanical interests, and on the various branches of physical science, and of the arts; and from these you deduce principles, leading to greater economy and efficiency in developing the resources of the country, thus adding to its general wealth, and giving remunerative employment to a larger population.

A prospector has no time to write, much less to philosophize. It is a little too *deep* for him. Surface diggings suit him best. He, finds a lead, knocks off a specimen for assay and hurries to the next new district. I will now briefly sketch a little of what I have seen and done. I have only time to say a few words as to

HOTELS, ETC.

The American is closed for the present, and will soon be offered for sale. The Solano, under the care of my accommodating hostess, Mrs. Minmann, is, in truth, the *only* hotel in the city, and is admirably conducted.

This place is well supplied with

FLOURISHING SCHOOLS,

Public and private, Catholic and Protestant. Mr. Rose is Principal of the Public School, and gives, as far as I could learn, universal satisfaction to his patrons. Miss Atkins, long known as a popular teacher of young ladies, has sold her Seminary to Rev. Mr. Mills, late of the Sandwich Islands, who has re-opened the same with very flattering prospects. I had the pleasure, in other days, of visiting Mr. Flatt's Collegiate Institute, and of witnessing his tact—a rare and happy faculty—in enlisting and fixing the attention of the pupil, and fastening the thought in the mind while fully aroused, and allowing it no time to relapse into listlessness. This well established school is, as usual, in a very prosperous condition, and will not be able to accommodate many more from abroad, unless the already very commodious premises be enlarged.

THE MILITARY.

The soldiers, as you are aware, have been removed from here, which gives the place a duller aspect than formerly. At the Ordnance Department I met the fascinating, gallant Colonel R. A. Wainwright, of the U. S. army, and also Rev. Mr. C., before whom I was not as reverent as I might have been. The fact is, a waggish soldier pointed him out as one who could give me any information as to said Mr. C.'s whereabouts. As his reverence was dressed in an officer's uniform, and perceiving from the questions propounded to him that my mental perceptions were somewhat obscured, and as he enjoys a joke, he became so amusingly droll, and put on such a quizzical look, in consequence of the good-natured perplexity of your "prospector"—all so different from the "long face" expected—that the delusion was for a time increased. When the light did at length suddenly burst upon my hitherto obtuse and now astonished mental phiz, I guess we laughed. The scene is easier imagined than described.

PACIFIC M. S. CO.' WORKS.

Here, (and I might have said the same of the barracks), everything throughout all their different branches, exhibited a neatness, order and system, which do great credit to the very efficient superintendent, Mr. James Pollock, and his associates. I should like to say more, but this letter is already too long.

CONCLUSION.

Thanks to Mr. Sunborn, pioneer newsman, on whose counter the MINING AND SCIENTIFIC PRESS is found, to his associate, agent of Wells, Fargo & Co., and many others, for kindnesses and courtesies shown, and information and counsel cordially tendered.

PROSPECTOR.

Benicia, Jan. 16, 1866.

CONSUMPTION OF IRON.—It is estimated that the consumption of wrought iron, not including railroad iron, in the States of California, Nevada and Oregon, is 10,000 tons per annum, all of which is imported. The average value of this iron is at least $80 per ton at San Francisco, or $800,000 per annum is paid for an article which should be manufactured at home. There is shipped annually from San Francisco from 1,200 to 1,500 tons of scrap iron, worth $10 per ton. This goes to the rolling mills at the East, paying several profits and probably returns again to California. There are now some three hundred miles of railroad, inside and main tracks, which require at least 27,000 tons of rails irrespective of chairs and spikes. These require replacing at least once in eight years. As roads are rapidly increasing, the amount of iron used will increase in proportion. These figures indicate that a rolling mill would be profitable at the Bay city.

SINGULAR CAUSE.—The telegraph announces a tremendous explosion of a locomotive boiler, at Terre Haute (Indiana), which was quite destructive, throwing off the roof of the building, spreading the wall, and scattering freight, timber, brick and mortar, books and papers, in all directions. The most singular part of the announcement, however, is the cause which has been assigned for the catastrophe—"the extreme cold weather."

AN ingenious contrivance has been made by two Parisians. They blow a small globe within a decanter or claret-jug. This globe, which has its opening in the side of the larger vessel, serves to hold a freezing mixture to cool wine or water in summer, and in winter may be filled with warm water to take the chill off.

A FINLAND newspaper mentions a stone in the northern part of Finland which serves the inhabitants instead of a barometer. This stone, which they call Ilmokiur, turns black, or blackish gray, when it is going to rain, but on the approach of fine weather it is covered with white spots.

THE FIRST IRON SHIP.—John Wilkinson, of Castlehead and Broseley, known as the great ironmaster, is said to have built the first iron ship, which was launched in July, 1787.

IT is estimated that, at the present time, vessels are being constructed in French yards for Prussia, to the amount of $5,000,000.

MOST metals unite directly with phosphorus when the latter is thrown upon them while in a state of ignition, or when they are heated in its vapor.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

AFTERNOON SESSION.

2 shs Hale & Norcross at 580 per foot.
10 shs Hale & Narcross at 575 per foot, s 10.
22 shs Hale & Norcross at 590 per foot, b 30.
4 shs Hale & Norcross at 570 per foot, s 3.
2 shs Hale & Norcross at 565 per foot.
2 shs Hall & Norcross at 560 per foot.
2 shs Hale & Norcross at 570 per foot, s 5
6 shs Hale & Norcross at 500 per foot, s 30
10 shs Hale & Norcross at 650 per foot.
2 shs Chollar-Potosi at 240 per foot.
5 shs Chollar-Potosi at 250 per foot, b 30.
2 shs Chollar-Potosi at 250 per foot.
10 shs Chollar-Potosi at 249 per foot.
5 shs Chollar-Potosi at 250 per foot, b 10.
20 shs Chollar-Potosi at 252½ per foot.
5 shs Chollar-Potosi at 251 per foot, b 10.
5 shs Chollar-Potosi at 248 per foot, s 30.
5 shs Chollar-Potosi at 252 per foot
5 shs Chollar-Potosi at 250 per foot, s 30.
4 shs Alpha, G. H. at 330 per foot.
8 shs Alpha at 235 per share.
10 shs Yellow Jacket at 335 per foot.
1 sh Yellow Jacket at 335 per foot, s 10.
1 shs Yellow Jacket at 325 per foot, s 30.
1 sh Yellow Jacket at 335 per foot, b 3.
2 shs Yellow Jacket at 330 per foot, s 15.
1 sh Savage at 750 per foot, h 30.
10 shs Imperial at 109 per share, s 30.
20 shs Imperial at 111 per share, s 5.
5 shs Bullon at 36 per share.
1 sh Empire M & M Co. at 190 per sh, s 30.
10 shs Cal Steam Nav Co at 61 per ct, s 60.
Amount of sales.....$123,363 00

Tuesday, January 30.

24 shs Ophir at 335 per foot, s 30.
132 shs Ophir at 345@335 per foot.
12 shs Ophir at 330 per foot, s 3.
8 shs Savage at 750 per foot, h 30.
5 shs Savage at 745 per foot, s 10.
8 shs Savage at 750@740 per foot.
1 sh Savage at 725 per foot, s 30.
31 shs Chollar-Potosi at 250@260 per foot.
10 shs Chollar-Potosi at 259 per foot, s 30.
86 shs Hale & Norcross at 560@580 per ft.
2 shs Hale & Norcross at 560 per foot, s 3.
2 shs Hale & Norcross at 585 per foot, s 5.
2 shs Hale & Norcross at 590 per foot, s 30.
8 shs Hale & Norcross at 540 per foot, s 15.
2 shs Yellow Jacket at 330 per foot, s 15.
1 sh Yellow Jacket at 335 per foot, s 3.
2 shs Yellow Jacket at 325 per foot, s 30.
5 shs Yellow Jacket at 335@340 per ft.
1 sh Yellow Jacket at 340 per foot, h 10.
2 shs Yellow Jacket at 340 per foot, b 3.
1 sh Yellow Jacket at 330 per share, s 20.
1 sh Yellow Jacket at 335 per foot, s 5.
40 shs Daney at 4¼ per foot.
24 shs Alpha, G. H. at 228 per foot.
1 shs Belcher at 130 per foot.
1 sh Empire M & M Co. at 215 per share.
10 shs Crown Point at 665@680 per foot.
8 shs Crown Point at 680 per foot, b 5.
4 shs Crown Point at 700 per foot, h 30.
60 shs Lany Bryan at 50p per share.
50 shs Bullion at 35 per share, s 30.
20 shs Imperial at 112@111 per share.
5 shs Sierra Nevada at 6 per share.
5 shs Adams Pet Oil Co. at 5½ per sh.

AFTERNOON SESSION.

4 shs Crown Point at 700 per foot.
4 shs Crown Point at 720 per foot.
8 shs Crown Point at 725 per foot.
1 sh Savage at 760 per foot, h 30.
4 shs Savage at 750@745 per foot, h 30.
2 shs Savage at 742½@740 per foot, h 10.
1 sh Savage at 740 per foot, s 3.
3 shs Savage at 740 per foot.
2 shs Savage at 740 per foot, h 30.
1 sh Savage at 735 per foot.
1 sh Savage at 700 per foot, s 30.
1 sh Savage at 720 per foot, s 30.
6 shs Hale & Norcross at 535 per foot, s 30.
2 shs Hale & Norcross at 260 per foot, h 15.
2 shs Hale & Norcross at 540 per foot, s 30.
2 shs Hale & Norcross at 600 per foot, h 3.
6 shs Hale & Norcross at 595 per foot.
2 shs Hale & Norcross at 600 per foot.
6 shs Hale & Norcross at 610 per foot.
2 shs Hale & Norcross at 650 per foot, s 30.
2 shs Hale & Norcross at 600 per foot, s 10.
2 shs Hale & Norcross at 616 per foot, h 3.
2 shs Hale & Norcross at 590 per sh, s 15.
2 shs Hale & Norcross at 600 per sh, s 3.
1 sh Yellow Jacket at 335 per foot.
5 shs Yellow Jacket at 340 per foot, b 3.
2 shs Yellow Jacket at 340 per foot.
2 shs Yellow Jacket at 345 per foot.
3 shs Yellow Jacket at 350 per foot.
1 sh Yellow Jacket at 355 per foot.
3 shs Yellow Jacket at 340@335 per ft, s 30.
1 sh Yellow Jacket at 355 per foot, h 10.
6 shs Yellow Jacket at 350 per share, s 3.
10 shs Chollar-Potosi at 256 per foot.
5 shs Chollar-Potosi at 255 per foot, h 10.
2 shs Chollar-Potosi at 256 per foot, s 3.
4 shs Chollar-Potosi at 257 per foot, h 10.
15 shs Chollar-Potosi at 260 per foot, h 30.
5 shs Chollar-Potosi at 257½ per foot.
5 shs Chollar-Potosi at 260 per foot, s 3.
10 shs Chollar-Potosi at 260 per foot.
4 shs Alpha, G. H., at 240 per foot.
35 shs Bullion at 38 per share.
10 shs Bullion at 37 per share, s 30.
5 shs Bullion at 40 per share.
30 shs Sierra Nevada at 5 per share, h 30.
65 shs Lady Bryan at 50c per share.
$2,500 Legal Tender Notes at 71½c.
Amount of sales.....$163,492 00

Wednesday, January 31.

32 shs Chollar-Potosi at 240@273 per ft.
5 shs Chollar-Potosi at 270 per foot, s 3.
10 shs Chollar-Potosi at 272½@273, b 3.
25 shs Chollar-Potosi at 267½@270 pr ft, s 30
48 shs Daney at 4½ per foot.
4 shs Hale & Norcross at 650 per foot, s 15.
2 shs Hale & Norcross at 675 per ft, b 3.
22 shs Hale & Norcross at 685@675 per foot.
4 shs Hale & Norcross at 640@650, s 30.
4 shs Hale & Norcross at 635 per ft, s 3.
7 shs Yellow Jacket at 355@350 per foot
2 shs Yellow Jacket at 360 per foot, h 30.
2 shs Yellow Jacket at 345@350 per ft, s 30.
24 shs Alpha, G. H., at 250@260 per foot.
84 shs Ophir at 337½@345 per foot.
24 shs Ophir at 340 per foot, s 3.
5 shs Belcher at 155@150 per foot.
2 shs Savage at 750 per foot, h 5.
3 shs Savage at 750 per foot.
4 shs Gould & Curry at 810 per foot, h 3.
2 shs Imperial at 112 per share.
15 shs Imperial at 109 per share, s 30.
20 shs Imperial at 111@111¼ per share, s 8.

City Stock Reports---San Francisco Stock and Exchange Board.

From the "Weekly Stock Circular of the Associated Brokers."

SAN FRANCISCO, SATURDAY MORNING, February 3d, 1866.

Our local Fire and Marine Insurance Companies have made their usual annual statements, as required by law. Their several exhibits furnish much interesting data concerning the rapid growth and present expansion of the business of Underwriting upon this coast. Heretofore we were exclusively patronizing foreign companies; but now resident capitalists find this interest very productive, and are prosecuting it with great energy. In addition to the following figures, other details will be found in another portion of the Circular.

Annual Statement of the Insurance Companies of San Francisco for the Year 1865.

NAME OF COMPANY.	Capital Stock.	Am'nt paid in to Dec. 31st.	Cash Assets.	Amount required to reinsure outstand'g risks	Amount of outstanding risks.	Amount of risks written during 1865.
Pacific	$750,000 00	$750,000 00	$1,051,420 37	$126,994 86	$13,458,857	$15,446,521
Union	750,000 00	450,000 00	502,461 04	no report.	3,720,117	3,953,762
Fireman's Fund	500 000 00	500 000 00	635,373 74	61,000 00	6,875,519	6,804,914
Merchant's Mutual	400,000 00	250,000 00	287,291 85	35,000 00	1,274,926	3,915,594
California Home	300,000 00	300,000 00	346,032 41	20,000 00	3,140,310	no report.
Occidental	300,000 00	60,000 00	75,800 41	13,970 00	2,183,542	2,245,000
Home Mutual	1,000,000 00	226,000 00	no report.	no report	no report.	815,420
California	200,000 00	200,000 00	242,990 19	31,229 08	1,742,621	5,644,920
San Francisco	150,000 00	150,000 00	275,808 92	20,312 20	3,411,225	3,342,075

It will he seen from the above, that the cash assets of the different companies, on the 31st of December last, amounted in the aggregate to $3,377,000, and the amount of risks outstanding at that time exceeded $35,000,000. In other words, their assets were less than 10 per cent. of the amount under insurance. The largest company had within a fraction of 8 per cent. of assets, and the smallest about 3½ per cent.

The Mining Share market exhibited unexpected vitality this week, and nearly every stock on the list has been in request at enhanced rates. The short interest has been freely sustained, owing to the readiness which seller's option contracts were taken, but at the close the late advance was not well maintained. The present condition of a number of mines is thought to be more flattering than for some time past, and if more economy and better judgment would now mark the management and general policy of some leading companies, they would soon convince those whose faith in the intrinsic value of a Washoe claim has been well-nigh destroyed, that *money can be earned* over and above current expenses, and that the interests of shareholders are henceforth to be honestly and judiciously protected.

Gould & Curry has been sold within a range of $800, seller 30, and $870 cash, closing at $835 bid. There is now nothing new to report from this claim. A small supply has been accumulated since last dividend day, and the net earnings this month are likely to show an improvement over January.

Savage has been in more favor, and some 135 feet were dealt in, advancing from $645 to $750, then selling at $850@990, and closing at $860. The financial condition of this company is growing more satisfactory, and their indebtedness will, at this time, probably not exceed $75,000, exclusive of some $30,000 due (in monthly installments of $5,000 each) upon the Minnesota mill. Receipts of bullion, last month, amounted to $140,000, and an average of 125 tons of ore is now taken daily from the 1st and lower levels. In the east drift from the winze sunk from the latter station, small seams of ore have been met with. Mr. Alpheus Bull, a gentleman of high standing and well-known executive ability, has been chosen President of this company

Crown Point has also materially improved, steadily advancing from $620 to $835, then changing hands at $870@890, and selling yesterday at $880@810. During the week ending January 27th, 518 tons of ore were extracted from the mine, 363 tons of which came from the lower level. On the vein of the latter the north drift has extended 65 feet, and the south drift about the same distance, showing no material change. In addition to the outside mills alluded to last week, the Succor, Righy, and Merrimac mills have since been employed, giving a crushing capacity in all of say 150 tons per day, including the company's two establishments. The last clean-up of the Rhode Island mill, was $47 per ton, and from the Crown Point, $62. Total yield of bullion last month exceeded $55,000.

Hale & Norcross has been a feature of the market, and some 250 feet were dealt in; advancing from $420 to $580, receding to $500, seller 30, rising to $875, and closing yesterday at $830. Recent developments in the north drift, at a depth of 700 feet (within a hundred feet of the Savage line), are regarded with decided favor. The lode at that point, so far as explorations have gone, looks promising, and is said to be fully 12 feet wide, in breasting out some 15 feet to the north. A recent crushing of ore yielded $55 per ton, and a considerable quantity is now being sent to different mills.

Yellow Jacket rose from $345 to $362, fell to $325, steadily advanced to $465, and sold yesterday at $460@$400. The bullion product of the mine, for the six months ending the 1st ult., amounted to $890,402, from 24,270 tons of ore (an average of $36.68 per ton). Other receipts, from assessment, etc., were $143,495—in all, say $1,033,897. The indebtedness of the company June 30th last, was $379,771, and during the ensuing six months $845,629 were disbursed for extraordinary and current expenses, in part as follows: Improvements to the Morgan mill, $81,636; upon the South Hoisting Works, $80,961; paid for crushing and hauling ore to mills, $425,000; labor, $89,426, etc., etc. The Morgan mill has thus far cost $223,000, and the Central and South Hoisting Works $149,757, which, together with supplies on hand, make up an aggregate of $428,814—equal to $357 per share of capital stock. Receipts of bullion for the weeks ending January 15th and 22d, amounted to $44,459.

Ophir rose from $325 to $430, and was dealt in at the close at $415@385. The yield of the company's mills exceeded $59,000 during the past month.

Alpha fell from $245 to $228, rose to $335, and sold yesterday at $365. Belcher has also revived, advancing from $125 to $210, and then selling at $195@200.

Chollar-Potosi has been very active at enhanced rates, and nearly 500 feet were sold, steadily advancing from $232 to $300, buyer 10, and changing hands yesterday at $280@257½. During the week ending January 26th, 640 tons of ore were sent to custom mills. In drifting west of the Potosi tunnel, in the Grose Roots station, good ore has been found; and also in the new station, 60 feet below that tunnel. The old works, between the 3d and 4th stations of the Chollar, continue to look well.

Imperial has fluctuated but little, and considerable sales were made at $111@120, closing at $113. The indebtedness of this company is now $20,000, less a large portion of the net earnings for January. The yield of bullion during the first three weeks of that month amounted to $49,500. Work has been commenced upon the new shaft. The contract price to sink and timber the work is about $65 per foot, and 100 feet are to be finished monthly until a depth of 1,200 feet has been attained. The dimensions of this monster shaft are 7 feet 4 inches, by 31 feet 4 inches. Empire Mill and Mining Company sold yesterday at $225, and closed at $240 asked.

Bullion rose from $36 to $62, then sold at $55, and closed at $48. Overman rose from $40 to $55, and sold yesterday at $60@50. Pacific Insurance Company was sold at $664. California Steam Navigation fell from 61, seller 60, to 58 cash, rose to 59½, and closed at 60 asked.

The aggregate sales of Stocks and Legal Tender Notes since Saturday last amounted to $925,783.

Fluctuations in Leading Mining Shares for the past Six Months.

Name of Company.	July 10th.	July 20th.	July 30th.	August 10th.	August 20th.	Sept. 1st.	Sept. 10th.	Sept. 20th.	Oct. 1st.	Oct. 10th.	Oct. 20th.	Nov. 1st.	Nov. 10th.	Nov. 20th.	Dec. 1st.	Dec. 10th.	Dec. 20th.	Dec. 30th.
Gould & Curry.....per ft.	1,750	1,730	1,500	1,500	1,475	1,135	1,300	1,240	1,250	1,000	1,015	1,010	1,100	875	975	940	850	925
Ophir	485	530	425	400	390	280	385	415	340	515	880	425	392	340	370	250	350	370
Savage	1,400	1,310	1,175	1,220	1,300	1,500	1,225	1,215	1,225	1,075	930	800	765	625	670	650	960	830
Potosi	350	395	480	465	460	440	420	410	472	455	355	350	....	....	....	....	....	....
Chollar	370	410	500	490	500	475	455	420	500	480	370	375	308	270	249	130	125	176
Hale & Norcross	655	570	625	520	610	480	520	550	750	476	325	305	205	165	190	170	125	280
Sheba	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Daney	....	14	....	50	70	43	40	40	35	30	15	10	15	8	....	....	....	....
Wide West	8	6	....	....	....	....	....	....	6	....	....	....	....	....	....	....	....	....
Burning Moscow	29	25	29	25	34	23	20	5	....	....	....	....	....	....	....	....	....	....
Pride of the West	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bullion	175	180	175	157	175	160	....	125	125	125	70	62	67	38	35	32	22	37
Real del Monte	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Overman	342	305	200	211	213	150	135	170	175	150	100	95	62	42	43	23	35	65
Sierra Nevada	10	14	25	20	18	19	22	21	17	22	12	10	12	8	6½	9	3	10
Yellow Jacket	1,115	1,105	1,220	1,350	1,355	1,420	1,460	1,405	1,345	1,110	720	780	670	620	535	235	425	530
White & Murphy	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sides	75	60	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Uncle Sam	345	307	190	240	215	193	185	....	....	....	....	....	....	....	....	....	....	....
Baltic	20	16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
North American	35	42	35	30	29	24	16	....	....	....	....	....	....	....	....	....	....	....
Baltimore American	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Melones	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Antelope	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Napoleon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacramento	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Utah	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lady Bryan	6	6	....	6	3	....	....	....	....	....	....	....	....	....	....	....	....	....
Imperial	245	218	227	230	255	252	250	221	232	210	174	183	157	150	120	85	100	133
Crown Point	800	910	905	990	1,250	1,120	1,115	1,150	1,130	1,025	750	760	720	830	700	490	460	540
Belcher	775	850	805	860	865	875	900	910	875	630	400	435	400	300	265	245	160	175
Alpha	1,400	1,470	....	1,425	1,500	1,925	1,950	2,100	2,200	1,700	1,000	1,010	790	930	740	560	140	240

Authorized Scale of Commissions Adopted by the S. F. Stock and Exchange Board.

Miscellaneous.

Funded Debt, on par	¼ per cent
Insurance Stocks, on par	½ per cent
Wharf Stocks, on par	½ per cent
Gas Stocks, on par	½ per cent
Railroad Stocks, on par	½ per cent
Steamboat Co. Stocks, on par	½ per cent
Telegraph Co. Stocks, on par	½ per cent
Water Co. Stocks, on par	½ per cent
Legal Tender Notes and Bonds, on par	¼ per cent
Bills of Exchange, on net amount	¼ per cent
Mint Certificates, on net amount	½ per cent
Specie, on net amount	¼ per cent

Commissions on Mining Shares.

Sale at 1 dollar up to 10 dollars per foot	$0 25 per foot
Sale at 10 dollars up to 25 dollars	50 per foot
Sale at 25 dollars up to 50 dollars	1 00 per foot
Sale at 50 dollars up to 100 dollars	1 50 per foot
Sale at 100 dollars up to 200 dollars	2 00 per foot

All over $200 per foot, or share, one per cent. on the amount of purchase or sale.

FRANKLIN LAWTON, Secretary. J. B. E. CAVALLIER, President.

105 shs Exchequer at 5@5¼ per share.
280 shs Exchequer at 5 per share, s 3.
20 shs Exchequer at 5¼ per share, b 30.
6 shs Bullion at 40@41 per share.
10 shs Empire M & M Co. at 210@205, s 30.
1 sh Empire M & M Co. at 220 per sh, s 3.
2 shs Empire M & M Co. at 220 per sh.
3 shs Cal Steam Nav Co at 60 per cent, s 60
12 shs Cal Steam Nav Co at 58@59, s 3.
13 shs Cal Steam Nav Co at 58@58 per cent.
$ 5,000 Legal Tender Notes at 71 per cent.

AFTERNOON SESSION.

1 sh Yellow Jacket at 350 per foot, s 30.
1 sh Yellow Jacket at 360 per foot.
1 sh Yellow Jacket at 370 per foot.
11 shs Yellow Jacket at 375 per foot.
2 shs Yellow Jacket at 380 per foot.
5 shs Yellow Jacket at 400 per foot, b 30.
4 shs Hale & Norcross at 700 per foot.
4 shs Hale & Norcross at 710 per foot.
4 shs Hale & Norcross at 690 per foot, s 30.
14 shs Hale & Norcross at 700 per foot, s 10.
4 shs Hale & Norcross at 695 per foot, s 30.
1 sh Savage at 745 per foot.
1 sh Savage at 745 per foot, s 5.
3 shs Savage at 750 per foot.
2 shs Savage at 747½ per foot.
1 sh Savage at 750 per foot, b 5.
4 shs Crown Point at 800 per foot.
1 sh Crown Point at 825 per foot.
4 shs Crown Point at 825 per foot, s 30.
4 shs Crown Point at 835 per foot.
3 shs Belcher at 160 per foot.
1 sh Belcher at 170 per foot.
1 sh Belcher at 200 per foot.
1 sh Belcher at 185 per foot.
8 shs Gould & Curry at 815 per ft, s 3.
11 shs Chollar-Potosi at 775½ per foot.
20 shs Chollar-Potosi at 775 per foot.
12 shs Ophir at 350 per foot, b 2.
24 shs Ophir at 350 per share, b 10.
48 shs Ophir at 350 per foot, b 3.
24 shs Ophir at 352½ per foot.
24 shs Ophir at 355 per foot.
4 shs Alpha, G. H. at 280 per foot.
50 shs Exchequer at 5¼ per share.
5 shs Exchequer at 5½ per share.
10 shs Exchequer at 6 per share.
100 shs Exchequer at 5¾ per share.
100 shs Exchequer at 6 per share, b 30.
184 shs Exchequer at 5¾ per share, s 30.
2 shs Empire M. & M. Co. at 215@210.
5 shs Empire M & M Co. at 200 per sh, s 30.
6 shs Empire M & M Co. at 205@190 per sh.
4 shs Overman at 35 per foot, s 3.
5 shs Overman at 40 per share.
22 shs Overman at 42½ per foot.
5 shs Overman at 42¾ per foot, s 3.
1 sh Imperial at 112 per share.
5 shs Imperial at 111½ per share.
11 shs Imperial at 112 per share.
10 shs Sierra Nevada at 6 per share.
3 shs Bullion at 42¾ per share
5 shs Bullion at 45 per share.
Amount of sales.....$189,384 00

Thursday, February 1.

96 shs Ophir at 365@380 per share.
84 shs Ophir at 370@375 per share, s 3.
34 shs Hale & Norcross at 720@725, s 3.
2 shs Hale & Norcross at 750 per sh, s 15.
28 shs Hale & Norcross at 785@805 per foot.
20 shs Yellow Jacket at 410@400 per foot.
4 shs Yellow Jacket at 430@416 per ft, s 3.
5 shs Yellow Jacket at 425@410 per ft, b 3.
2 shs Savage at 762½@775 per cent.
1 sh Savage at 775 per foot, b 5.
4 shs Savage at 785 per foot, b 30.
1 sh Savage at 790 per foot, s 30.
2 shs Savage at 775 per foot, s 3
2 shs Savage at 785 per foot. b 3.
36 shs Crown Point at 800@850 per foot.
4 shs Crown Point at 872½ per foot, s 3.
32 shs Alpha, G. H., at 330@345 per foot.
16 shs Alpha, G. H., at 330 per ft, b 3.
4 shs Alpha, G. H., at 315 per foot, s 30.
3 shs Belcher at 210@165 per foot, s 3.
4 shs Belcher at 210@190 per foot, s 5.
2 shs Belcher at 200 per foot, b 3.
2 shs Belcher at 200 per foot.
26 shs Chollar-Potosi at at 280@295 per ft.
5 shs Chollar-Potosi at 290 per foot, s 30.
25 shs Chollar-Potosi at 290 per foot, b 10.
10 shs Overman at 50@52 per share, s 3.
30 shs Overman at 50@47½ per foot, b 30.
23 shs Overman at 50@47 per share.
75 shs Exchequer at 7@7½ per share.
22 shs Bullion at 30 per share.
5 shs Bullion at 55 per share, b 30.
15 shs Imperial at 114@115 per share.
10 shs Imperial at 112½ per sharp, s 30.
400 shs Segregated Belcher at 50c per foot.

AFTERNOON SESSION.

96 shs Ophir at 390@395 per foot.
12 shs Ophir at 400 per foot. b 3.
48 shs Ophir at 400@415 per foot.
60 shs Ophir at 410 per foot, b 30
32 shs Overman at 47@48 per share.
7 shs Overman at 50 per foot.
15 shs Overman at 50 per share. s 3.
5 shs Overman at 51 per foot, b 10.
15 shs Overman at 55@52 per foot.
5 shs Savage at 810@795 per foot.
2 shs Savage at 820@830 per foot.
1 sh Savage at 850 per foot, b 30.
26 shs Hale & Norcross at 830@825 per foo.
8 shs Alpha, G. H., at 340@365 per foot.
4 shs Alpha, G. H., at 350 per foot, s 3.
4 shs Alpha, G H, at 370 per foot.
6 shs Yellow Jacket at 450@355 per foot.
11 shs Yellow Jacket at 465@460 per foot.
5 shs Yellow Jacket at 490@465 per sh, s 3.
1 sh Yellow Jacket at 450 per foot, s 30.
20 shs Crown Point at 880@800 per foot.
20 shs Chollar-Potosi at 300 per foot, b 10.
20 shs Chollar-Potosi at 295 per foot.
2 shs Belcher at 195 per foot.
4 shs Gould & Curry at 850 per foot.
95 shs Exchequer, at 6 per share
20 shs Imperial at 115@116 per share, s 30.
40 shs Imperial at 118@120 per share.
43 shs Imperial at 120@119½ per share.
10 shs Imperial at 120 per share, b 30.
20 shs Bullion at 70@62 per share.
10 shs Bacon, G. H. at 75 per foot.
2 shs Cal Steam Nav Co at 59½ per cent.
Amouat of salcs.....$191,638 00

Friday, February 2.

264 shs Ophir at 405@425 per foot.
204 shs Ophir at 425@450 per share, b 30.
48 shs Ophir at 425 per foot.
9 shs Yellow Jacket at 460@445 per foot.
4 shs Yellow Jacket at 440 per foot, s 30.
19 shs Yellow Jacket at 425@440 per foot.
1 sh Yellow Jacket at 435 per foot, b 30.
10 shs Savage at 850@950 per foot.
7 shs Savage at 990@960 per foot.
2 shs Savage at 975 per foot.
1 sh Savage at 950 per foot, s 30.
66 shs Imperial at 121@118 per share.
4 shs Gould & Curry at 870 per foot.
31 shs Chollar-Potosi at 310@295 per foot.
26 shs Chollar-Potosi at 290 per foot.
5 shs Chollar-Potosi at 260 per foot, s 30.
4 shs Crown Point at 890@880 per foot.
40 shs Bullion at 55@60 per share.
5 shs Confidence at 45 per share.
12 shs Hale & Norcross at 850@830 per foot.
38 shs Hale & Norcross at 860@875 per foot.
27 shs Belcher at 200@195 per foot.
36 shs Alpha, G. H. at 390@380 per ft.
100 shs Overman at 60@55 per foot.
170 shs Exchequer at 8½@8 per foot.
1 sh Empire M & M Co. at 225 per sh.
2 shs Cal Stem Nav Co at 59½ per cent.

AFTERNOON SESSION.

120 shs Ophir at 425@415 per foot.
144 shs Ophir at 390@385 per foot.
4 shs Gould & Curry at 825 per foot, s 30.
9 shs Yellow Jacket at 410@405 per ft, s 10.
4 shs Yellow Jacket at 400 per share.
9 shs Savage at 925@850 per foot.
7 shs Savage at 860 per foot.
2 shs Savage at 865@880 per foot, s 30.
8 shs Crown Point at 850 per foot, b 30.
4 shs Crown Point at 880 per foot.
25 shs Chollar-Potosi at 250@260 per foot.
30 shs Chollar-Potosi at 265@257½ per foot.
38 shs Imperial at 114@113 per share.
24 shs Hale & Norcross at 870@885 per foot.
6 shs Hale & Norcross at 845@830, s 30.
27 shs Belcher at 200 per foot.
4 shs Alpha at 365 per foot.
25 shs Bullion at 50@48 per share.
75 shs Overman at 50 per foot.
20 shs Overman at 45@42½ per foot, s 30.
Amount of sales.....$176,249 00

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amouat and Time of Paymeat of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'D DELINQ'T LIST.	DAY OF SALE.
Animas, Durango, Mex.,	40c	Feb 3	Feb 19*
Agawam, Nye co.,	$1	Jan 13	Feb 8*
Arbitrios, Chihuahua, Mex.,	$1	Feb 3	Feb 15
Alpha, Storey co., Nev.,	$50	Jan 18	Feb 17
Adams Petroleum		Annual Meeting	Feb 7
Blue Ledge, Lauder co.,	$1	Feb 3	Feb 19*
Bunker Hill, El Dorado co.,	$1.50	Jan 20	Feb 2
Consolidated Silver Hill M Co., Nev.,	$2	Feb 10	Feb 20*
Capitola,	20c	Feb 8	Feb 22
Capital		Meeting	Feb 6
Chiplonema, Sonora, Mex.,	$5	Jan 27	Feb 7
Casselli, Nevade co., Cal.,	$5	Feb 10	Feb 26
Caledonia Tuanel, Gold Hill, Nev.,	$2	Dec 23	Feb 3
Chollar-Potosi, Storey co., Nev.,	$100	Jan 21	Feb 1
Confidence, Storey co., Nov.,	$25	Jan 22	Feb 6
Cosala, Sinaloa, Mex.,	$1	Jan 29	Feb 10
Comet Petroleum co.,	30c	Feb 24	Mar 8
Diana, Lander co., Nev.,	$10	Jan 20	Feb 6*
Dios Padre, Alamos, Mex.,	$2	Feb 2	Feb 14
Evoca, Del Norte co., Cal.,	25c	Mar 3	Mar 19*
Emerald Copper,	$1	Feb 10	Feb 21
Elk Horn, Petroleum,	50	Feb 7	Feb 23
Exchequer, Storey co., Nev.,	$2	Jan 17	Feb 1
El Taste, Sonora, Mex.,	$2	Feb 26	Mar 10
Franco-Americana, Mex.,	25c	Jan 26	Feb 9
Orcat Western Tunnel Co., Aurora, Nev.		June 27	Feb 10*
Goo Washington, Alpiue co.,	$1	June 27	Feb 13*
Hanscom, Copper, Del Norte co.,	15c	Feb 24	Mar 10*
Hornet, Lander co., Nev.,	$1	Jan 20	Feb 6*
Iowa, Storey co., Nev		Meeting	Feb 12
Jewett, Storey co., Nev.,	$1	Mar 3	Mar 20*
Jeffrey Oil,	50c	Feb 19	Mar 3
Kentucky Copper, Calaveras co.,	$1	Jan 20	Feb 7*
Leland, Arizona,	50c	Mar 3	Mar 19*
Lady of the Lake, Arizona		Mar 3	Mar 19
Lady Bryan, Storey co., Nev.,	$1	Feb 5	Feb 16*
London Quartz,	50c	Feb 20	March 10
Libertad, Sonora, Mex.		Meeting	Feb 5
La Fernandez, Sonora, Mex.,	$5	Mar 1	Mar 15
Maggie, Lander co., Nev.,	$5	Feb 14	Mar 3
Napoleon, Calaveras co.,	$7.	Jan 23	Feb 3
Nuestra Senora de Guadalupe, Durango,	$1	Jan 27	Feb 14
New Idria		Meeting	Feb 8
North Americau		Sale,	Feb 10
Nonparell,	$1	Feb 20	Mar 10
North American Tin co		Annual Meeting	Feb 7
Oxford Bota, Esmeralda co., Nev.,	50c	Feb 17	March 3*
Owen's River Canal co.,	40c	Feb 3	Feb 19*
Overmau, Storey co., Nev.,	$10	Feb 9	Feb 26
Peninsula, Lower Cal		Salc	Feb 8
Refugio, Chihuahua, Mex.,	$2½	Feb 10	Feb 21
Redgers, Storey co., Nev.,	$3	Feb 27	Mar 12
Salamander, Calaveras co., Cal.,	20c	June 27	Feb 10*
Santiago, Lyou co., Nev.,	$1	Jan 22	Feb 10
Sweet Vengeance, Yuba co.,	$1	Jan 20	Feb 6
Shoshone, Lauder co., Nev.,	$1	Jan 29	Feb 12
Santiago, Lyon co., Nev.,	$1	Feb 1	Feb 20
Sierra Valley, Plumas co., Cal.,	$1	Mar 5	Mar 17
Tuolumne Mouatain,	50c	Feb 10	Feb 26
Union Mattole, Humboldt co.,	$5	Jan 19	Feb 6*
Ventana, Durango, Mex		Anuual Meeting	Feb 8
Wide West, Alpine co.,	$3	Feb 3	Feb 21*
Yuba, Brown's Valley,	$5	Feb 3	Feb 17*
Yeosemite, Humboldt co., Nev.,	$1.25	Jan 20	Feb 6*

*Those marked with an asterisk (*) are advertised in this journal.

ASSESSMENT AND SALE LIST

OF CLAIMS IN

VIRGINIA AND GOLD HILL DISTRICTS.

CORRECTED WEEKLY FROM LATEST DATES OF THE TERRITORIAL ENTERPRISE.

[This list embraces Companies advertised in Virginia City papers, most of which are not incorporated or advertised in San Francisco.

Assessments Levied.

Name of Company.	Date of Levy.	Am't per foot
Alpha	Dec 19	200 00
Bullion	Dec 27	10 00
Caledonia	Dec 22	2 00
Chollar-Potosi	Dec 19	100 00
Confidence	Dec 21	25 00
California Consolidated	Jan 9	1 00
Globe	Dec 24	1 00
McMeans & Williams	Dec 10	25
North Comstock	Dec 19	25
Overman	Jan 9	10 00
Peck	Jan 3	1 00
Santa Rita	Dec 22	50

Delinquent Sales.

Name of Company.	Date of Sale.	Place of Sale.
American Basin	Feb 16	Virginia.
Almaden	Feb 9	Virginia.
Belcher	Feb 15	Virginia.
Belcher, Baldwin & Abernethy	Feb 15	Virginia.
Coercion	Feb 19	Virginia.
Chollar-Potosi	Feb 1	San Francisco
Exchequer	Feb 1	San Francisco
Jewett	Feb 1	San Francisco
Kentuck	Feb 2	San Francisco
McMeans & Williams	Feb 20	Virginia
North American	Feb 10	Virginia.
Utah	Feb 3	Virginia.
Union	Feb 5	Virginia.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the Mining and Scientific Press, of San Francisco, to the consideration and support of the miners of the Pacific coast.

San Francisco Stock and Exchange Board.

SAN FRANCISCO, Feb. 3, 1866.

	Bid.	Asked.
United States 7 3-10ths	$ 70¾	$ 71¼
Gov. Legal Tender Notes	70	70½
State Bonds, 7 ₱ cent	83	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	67	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 0 ₱ cent	50	55
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	60	..
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	65	80
California Navigation Co	58¼	59½
State Telegraph Stock	25	..
San Francisco Gas Co	102	104
Sacramento Gas Co	..	75
Spring Valley Water Co	58¼	60
RAILROADS.		
Sacramento Valley Railroad	..	
Omnibus Railroad	44	45
Central Railroad Co	..	65
North Beach and Mission	44	45
MINING STOCKS.		
Ophir	$ 425	$ 430
Gould & Curry	870	875
Empire M. & M. Co	225	250
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	975	985
Chollar-Potosi	275	280
Hale & Norcross	875	880
White & Murphy	....	....
Sierra Nevada	7	8
Yellow Jacket	425	430
Overmau	60	61
Cedar Hill Tunnel	....	....
Wide West	7	10
Crown Point	880	890
Antelope	....	....
Emeralda	1	6
Ætna	....	....
Real del Monte	..	15
Bullion, G. H.	55	57
Buckeye	....	....
Dick Sides	....	....
Imperial	119	120
Alpha	380	385

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	7 00	@	7 25
Do Superfine	6 75	@	7 00
Corn Meal, ₱ 100 lb		@	3 50
Wheat, ₱ 100 lb	2 25	@	2 35
Oats, choice, ₱ 100 lb	1 90	@	2 00
Barley, ₱ 100 lb	1 15	@	1 17
Beans, ₱ 100 lb	8 50	@	4 50
Potatoes, ₱ 100 lb	1 10	@	1 35
Hay, ₱ ton	10 00	@	18 00
Live Oak Wood, ₱ cord	8 00	@	10 00
Beef, on foot, ₱ lb		6@	7
Beef, extra, dressed, ₱ lb	12½c@		15
Sheep, on foot	1 00	@	2 00
Hogs, on foot, ₱ lb	9	@	10
Hogs, dressed, ₱ lb	18	@	14
Groceries, Etc.			
Sugar, crushed, ₱ lb	16	@	—
Do China	10	@	12½
Coffee, Costa Rica, ₱ lb	—	@	27
Do Rio	26	@	—
Tea, Japan, ₱ lb	85	@	1 00
Do Green	70	@	1 00
Hawaiian Rice, ₱ lb	10	@	—
China do.	7	@	8
Coal Oil, ₱ gal		@	1 40
Candles, ₱ lb	24	@	27
Ranch Butter, ₱ lb	55	@	65
Isthmus do	35	@	40
Cheese, California, ₱ lb	20	@	26
Eggs, ₱ doz	45	@	60
Lard, ₱ lb	22	@	23
Ham and Bacon, ₱ lb	25	@	—
Shoulders	20	@	22
Soap—Pale & C. O	10	@	12
Castile		@	14

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	50	@	75
do pickled ₱ lb	60	@	—
do Oregon	35	@	40
do New York, ₱ lb	45	@	—
Cheese, ₱ lb	25	@	35
Honey, ₱ lb	30	@	40
Eggs, ₱ doz	50	@	60
Lard, ₱ lb		@	25
Hams and Bacon, ₱ lb	28	@	30
Cranberries, ₱ gal	75	@	—
Potatoes, sweet, ₱ lb	5	@	—
do Irish, ₱ lb		@	2½
Tomatoes, ₱ lb	5	@	8
Onions, ₱ lb	4	@	6
Apples, No. 1, ₱ lb	4	@	10
Pears, table ₱ lb	5	@	10
Plums, dried, ₱ lb	15	@	25
Peaches, dried, ₱ lb	15	@	25
Grapes, ₱ lb	5	@	18
Oranges, ₱ doz	75	@	1 00
Lemons, ₱ doz	1 00	@	1 50
Chickens, apiece	75	@	1 00

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@ 1¾c ₱ lb; Plate 1¾c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	52½@	55
American Pig ₱ ton	50 @	62½
Refined Bar, bad assortment, ₱ lb	3 @	—
Refined Bar, good assortment, ₱ lb	3½@	—
Boiler No. 1 to 4	4 @	5
Plate No. 5 to 9	4½@	5
Sheet No. 10 to 13	4 @	—
Sheet No. 14 to 20	5 @	—
Sheet No. 24 to 27	6½@	—

COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb.

Sheathing ₱ lb	36	@38
Sheathing, Old	20	@30
Sheathing, Yellow	35	@37
Sheathing, Old Yellow	12	@13
Bolts	13	@16
Composition Nails	30	@32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	14	@15
Plates, I C Charcoal	12	@13
Roofing Plates	11	@ 12
Banca Tin Slabs, ₱ lb	41	@42½
STEEL.—English Cast Steel, ₱ lb	12½@	16
QUICKSILVER.—Per lb	—	@65
For export	55	@—
ZINC.—Sheets ₱ lb	9½@	10
LEAD.—Pig ₱ lb	7	@ 8
Sheet	10	@12
Pipe	10	@12
Bar	9½@	10
BORAX—California, ₱ lb	20	@23

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th last. The PRESS is a large, sixteen-page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast. It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid. Its correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco. [Nyo County News.

Situation Wanted.

AN ENGINEER, who would take charge of a Stationary Engine, in the city or country, for a reasonable salary, desires a situation. Address, "Engine," Box 17, San Francisco Post Office. 5v12tf

Just and True Economy

The Proprietors of the MINING AND SCIENTIFIC PRESS would call the especial attention of MINING SECRETARIES, TRUSTEE and SHAREHOLDERS, to a few substantial reasons for the publication of Mining Notices in their Journal—the first and only important newspaper of its class published upon this coast.

1st. The PRESS enjoys a large and permanent subscription list, having a more universal circulation among shareholders and men intimately connected with mining interests than any other publication.

2d. Under the present law the publication of all mining notices on Saturday, in a weekly journal, complies as fully with the statutes as a daily publication. It is generally found to be equally as convenient for secretaries, and decidedly preferable to stockholders who have not time to examine throughout every issue of a daily.

3d. Economy in mining should always be looked upon with favor, and the cost for weekly advertising in the PRESS is less by ONE HALF than the rates of any other journal in this city possessing a respectable circulation.

4th. The publishers of the PRESS, making the mining interest their especial care, take particular pains to assist in the avoidance of errors in advertising. Our print is also more clear and perfect than can be expected in such papers as are hurriedly issued from cylinder presses.

5th. Our "Shareholders' Directory" forms a complete index of all mining notices published in San Francisco, by reference to which shareholders can at once see if their company is advertised, and determine whether the same is inserted in the PRESS or some other paper.

6th. Many copies of the PRESS are bound by prominent professional men, mechanics, secretaries, brokers, shareholders and others, as an important record for future reference, thereby rendering advertising, of every class, in its columns, of peculiar and permanent value.

7th. The benefit of having all mining notices consolidated in one newspaper, for the common convenience of shareholders, secretaries, and others who have occasion to refer to the same, is obvious. With this view we have established our rates at only fair, living prices, believing that a journal like ours, untrammeled by party, creed, or prejudice, is the only medium which can reasonably ask for such a consolidation of mining patronage.

8th. Advertisements in the columns of the PRESS, after their first insertion, are arranged alphabetically. Our present list is equalled only in one instance by that of any other journal. Shareholders, as well as mine owners, naturally turn their attention to a mining journal for information concerning the mines and mining matters.

LAST, BUT NOT LEAST.—Our sheet (having been recently enlarged to the size of Harpers' Weekly) is now only equalled in its dimensions by one mining paper in existence—the *London Mining Journal*. Published in this, the greatest mining field of the world, we desire that the PRESS shall have no superior. We can only realize our cherished object of building up a reliable advocate of the science and business of mining, which will be of just honor and profit to our community, by experience and liberal patronage. The bestowal of such favors only as naturally belong to us, and which it is clearly for the benefit of the mining fraternity to extend, is all that is requisite, and we are confident we shall receive it

DEWEY & CO.,
4v11 Office Mining and Scientific Press.

MINING BLANKS

For Sale

AT THE

OFFICE OF THE MINING AND SCIENTIFIC PRESS

No. 505 Clay Street, corner of Sansome.

Blanks for Mining Companies, Secretaries, Shareholders and others, always on hand, or printed to order, at our office.

Among others are those of the following forms:

Shareholder's Proxy.

KNOW all men by these presents, that I, ... do hereby constitute and appolat ..... my attorney and agent, for me and in my name, to vote as my proxy, at a meeting of the ..... Minlag Company, to be held ..... 186 , according to the number of votes that I should be entitled to cast were I there personally present.

In witness whereof I have this day hereunto set my hand and seal. .....[Seal]

Dated 186

Assessment Notice.

..... Company

.....

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ..th day of ....., 186 , an Assessment of ..... per share was levied upon the Capital Stock of said Company, payable on the ..th day of ....., 186 , in United States gold and silver coin to the Secretary.

Any stock upon which said Assessment shall remain unpaid on Saturday, the ..th day of ....., 186 , will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on ....., the ..th day of ....., 186 , to pay the delinquent Assessment, together with the costs of advertising and expeases of the sale. By order of the Board of Trustees.

..... Secretary.

Office.....

NOTICE.—There are delinquent, upon the following described Stock, on account of assessment levied on the ..th day of ..... 186 , the several amounts set opposite the names of the respective shareholders as follows, to wit:

Names.	No. Certificate.	No. Shares.	Amount.
Theophilus Thistle	23	14	$140 00
Peter Pipe	2	3	30 00

And in accordance with law and an order of the Board of Trustees, made on the ..th day of ....., 186 , so many shares of each parcel of said stock as may be necessary, will be sold at the .....

....., on ....., the ..th day of ....., 186 , at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

..... Secretary.

Office.....

☞ Our advertisers are furnished with blank Assessment Sale notices free of charge. Orders from the interior promptly filled, by mail or express, as may be desired.

Mining Summary.

CALIFORNIA.

TRINITY.—The *Journal* is calling attention to the undeveloped mines of Trinity, and says: Only a short time since some miners discovered a claim opposite Junction City which pays from $50 to $80 a day. And how was the claim found? Simply by disregarding the advice of "old miners," and working faithfully to open a claim which had been deserted by men who did not possess the same energy and perseverance.

We do not hesitate to affirm that this county offers hundreds of just such opportunities, if we had the right kind of population and enough of it to develop them. No other county offers such inducements to a large mining population as Trinity. A county as large as the State of Massachusetts, every foot of which is more or less auriferous, with untold wealth in quartz, yet with not a single mill, or even arastra, and this extent of territory occupied by some twelve hundred miners. Five thousand could easily find employment, independence and riches within our borders, and even then it would take years to exhaust the surface diggings.

PLUMAS.—The Quincy *Gazette* says: A friend informs us that the region of country around the Premium and Crescent ledge is literally covered with paper titles, sometimes two or three deep. It is undoubtedly a rich section of country, and those who locate should perfect their title by labor and actual occupancy; otherwise, they may have to call in the aid of the law to decide ownership—and law is an expensive luxury now-a-days in this climate.

The Yreka *Journal* says: More Chinamen are being employed this year in this county by white men than ever before, from the desire to get claims worked cheaper. Scott river, which used to be a great field for white labor, is now overrun with Chinaman, who work at so low rates that white men cannot compete.

NEVADA.—We understand that several mines in Grass Valley, and among others the Union, have been compelled, in part at least, to suspend operations for the present on account of the great influx of water from the late heavy rains. Their pumps were inadequate to the task of keeping them free of water. Some of the mills are also running short of rock on account of the impossibility of hauling by reason of the bad condition of the roads.

We would call the especial attention of our readers to the summary of mining news from this county, given in another place, in to day's issue, from our Nevada and Grass Valley correspondents.

PLACER.—We learn that quite an improvement in the placer mining prospects are beginning to appear about Yankee Jims and Sarahsville, by reason of the introduction of machinery to work the cement ground, which it has been found impossible to work by the ordinary method of sluicing. Much of the gravel found here is of that peculiar cement character which it is necessary to work over five or six times, at great expense of hauling, etc., allowing it to lay in the meantime through one or more entire season to slack. Even then a large amount of gold was lost.

Something over a year ago, Mr. C. H. Dewey, the conducting manager of one of the principal mines near Sarahsville, decided to put up a crushing-mill, similar to those employed in Nevada county. After a year's trial the plan has been found to succeed well. Crushing the gravel has been found here, as elsewhere, a decided success. This mill employs twenty stamps, driven by a 40-horse engine, although but ten stamps are employed at present. These ten stamps reduce from thirty to forty tons of cement every twenty-four hours.

The Rough Gold company, near by, have also erected a mill which went into operation about three months since; so late in the season, however, that the company have as yet scarcely been enabled to give the new process a fair test. No doubt, however, is entertained with regard to its ultimate success. There are numerous other claims in this vicinity, all of which feel a renewed confidence since the above-mentioned mill experiments, and no doubt is entertained but that other mills will soon be put up, as fast as the different claims are properly opened.

CALAVERAS.—The San Andreas *Register* says Messrs. Knapp, Wilcox & Co., have just completed a mill of six stamps to crush the dirt from their claim, at Yaqui Camp, about a mile and a half from that place. They have some very rich dirt, but it is a kind of cement, so hard that they are unable to save all the gold by the ordinary method of washing. But by the use of the stamps they will be able to make a good thing.

AMADOR.—The *Dispatch* says that an extensive cinnabar mine has lately been discovered near the Boston ranch, about ten miles from Jackson, in this county, which is pronounced very rich by those who profess to be judges of the article; and a company has been organized and will shortly be incorporated for the purpose of working it. Should it turn out to be as rich as it is supposed to be, it would be difficult to estimate the value it would be to this section of the country.

TUOLUMNE.—The editor of the Tuolumne *Courier* recently visited the Bacon mine, at Calder's ranch, about ten miles from Sonora, owned by Messrs. Bacon & Leonard. This claim is a recent location, but considerable money has already been spent in developing it. A tunnel has been driven in 185 feet to the vein, and a cross drift 200 feet each way in length running all the way up the vein, and disclosing a large amount of rock. To this level five chutes have been opened from the surface downward, about 100 feet distant from each other, and connected by stopes at convenient intervals. An incline is being sunk from the northern drift, which is now down about sixty-five feet. Over 400 tons of rock have been extracted, which will now be crushed, and an immense quantity is also in sight. All the work of opening, timbering and ventilating is described as having been done in a superior manner. Good results are confidently expected from this mine.

The same paper, in speaking of the Sugar Pine District, some eighteen miles from Sonora, says it has for several years been noted for the number and wealth of its quartz ledges, some of them having yielded a vast amount of gold, while many others in a less forward state of development give evidence of becoming quite as productive. One of the most promising claims in the district is the Mount Moriah, located in November, 1862, and containing 2,400 feet, situated about half a mile from the famous Excelsior, and about the same distance from Uniontown. The vein has been prospected for the distance of 1,800 feet. Considerable quantities of rock have been crushed, and proved to be rich, and more, of a still better quality, is being daily taken out. This claim will no doubt prove a valuable one. A mill will be put upon the ground in the spring, or sooner, if roads and weather permit.

Gillis Bros. & Co., struck a pocket in the decomposed slate about their ledge, near Tuttletown, from which they have already taken several hundred dollars. The streak is three or four inches wide, and yields from twelve to forty dollars to the pan, and getting richer. Their claim is on the "big lead," and is being prospected with energy. The rock presents a fine appearance, and samples taken from any portion of the ledge show free gold, being almost precisely like the quartz from the Raw Hide Ranch lode.

One-half of the Shanghae quartz mine, near Yankee Hill, Tuolumne county, has been sold to a San Francisco party for $25,000. Gen. Morgan and J. B. Douglass, of Columbia, were among the owners.

AMADOR.—The Jacksonville *Sentinel* says: A few days ago, Sam and John Taylor commenced to prospect a bar on Applegate, a short distance below the Fowler quartz ledge, by cutting a race from the creek. They cut through the rim rock, and in so doing took out about fifteen ounces of coarse gold, varying from the size of a wheat grain to an ounce in weight. They only worked four days.

W. B. Floyd has sold his quartz vein and mill in Hunter's Valley to a San Francisco company for the nice little sum of $24,500. The vein has been paying very well and is considered good property.

A correspondent of the *Free Press* writing from Hunter's Valley says that there are a great many influential men of capital from San Francisco among us, who seem to take an interest in the mines of that region. The "La Victoire" mine looks well, as does the "Blue Lead." The latter, you will hear of in a short time. Mr. Wilson of San Francisco, has purchased the Floyd vein and all the machinery, tools, etc., connected therewith. The Superintendent of the La Victoire, is afloat through the hills and ravines, negotiating for Wilson & Co. It is to be hoped he will succeed in his endeavors to bring to a successful issue what it has taken months to bring down to so low a figure. The Potts, at the Jemisal, looks well, and also the Barrett vein. In fact our Valley is full of mineral and all it needs is *thorough development*.

VIRGINIA CITY AND VICINITY.

It has long been a pretty generally conceded fact that a large amount of loss attended the working of the mills in Gold Hill; but we were scarcely prepared for anything like the following, which we clip from the Gold Hill *News* of the 27th ult:

Last night we were shown about an ounce of soft amalgam which was taken from *one pan* of the tailings caught in the Dayton reservoir. Mr. Andrews is principal owner, we believe, and McLaughlin & Root own one-fourth. This reservoir was put in for the purpose of catching the tailings that flow down Gold Cañon, and the amalgam we saw was taken from one pan of the tailings in this reservoir, by Mr. Root himself. He states that they have already accumulated several hundred tons of those tailings, which are equally rich with those from which the prospect we saw was taken. There is but little doubt that thousands of dollars pass down Gold Cañon every month, and we cannot see why the owners of mills do not catch their own tailings and save them; for in time the tailings that pass down Gold Cañon will be worth more than what is extracted from the ore at the present working.

The Granite mill, Gold Hill, has been closed up, the owners having sunk some $20,000 in cash, aside from their own labor and attention. The *News*, after stating that the proprietors had struggled manfully to make the mill pay, intimates that there must be a screw loose somewhere in the mill, for it is so conveniently located that its profits should be much larger than those located remotely.

It is said that there are about 1,700 men engaged in the mines of Gold Hill proper, extracting about 950 tons of ore per day, which, at $30 per ton, would give a yield of $28,500 per day, or $855,000 per month.

OUTSIDE MINES.—The *Enterprise* is informed by Hon. Felix O'Neil, of the Assembly, that the mines in the Peavine district, near the Truckee, bid fair to prove of no inconsiderable importance in the mining interests of Nevada. There are in that district five principal claims known as the Great Eastern, Develhymer, American Eagle, Enterprise and Metropolitan, which are being worked steadily by the Metropolitan Tunnel and Mining company. The first of these mines located was the Develhymer, in the spring of 1862, by Mr. O'Neil and his associates, and the others are a series of parallel ledges. No work of any account was done on these ledges until last August, after the return of Mr. O'Neil from Austin, when the Metropolitan Tunnel company, in running for the Develhymer, struck the ledge now known as the Great Eastern, which, on being stripped 40 feet by 250 feet, at a depth of 25 feet, disclosed a large body of sulphuret ore, intermingled with desulphurized ore. From this ledge the company are now furnishing the English Mill company, on the Truckee river, with ore which yields from 80 to 108 ounces of bullion to the ton. The mine is but seven miles from the mill, and keeps the latter steadily employed in working its ore.

The Clan Alpine district is about 130 miles east of Virginia and 45 miles west of Austin. It is four miles west of the Overland Mail route. It is a bold, rugged, and mountainous district, but fortunately well wooded and watered—advantages which many other districts do not possess. Until recently but little work has been done in this district. Now, however, New York capital is beginning to make itself seen and felt. The Silver Lode Mining company are sinking a shaft on the McGregor ledge. They are now down 185 feet, and find a ledge between seven and ten feet in thickness, which assays all the way from $80 to $160 per ton. Such rock as this, at such a depth, is certainly encouraging. They can probably sink 100 to 150 feet further before the water level is reached. This company have also a mill in process of construction. It is a substantial stone building, large enough for twenty stamps. But ten stamps will be put in at the present time. The mine and mill are under the supervision of Mr. J. Ingalls, and will be in running order early in the spring. There are several other companies which will commence operations there in the spring.

REESE RIVER.

A mammoth mining association, known as the Consolidated Silver Mining company, has recently been organized under the laws of the State of New York, to carry on the business of silver mining chiefly in the Reese River district and vicinity. The company already own thirty-six ledges, a larger majority of which are located within three miles of the city of Austin. It is the intention of the company to have, at least, four mills running by the first of July next, each with a capacity of reducing twenty-five tons of rock per day. They propose to have two other mills in operation by the first of November next. The capital stock of the company is fixed at $8,000,000, divided into 80,000 shares, of $100 each. Their principal office will be at 73 Broadway, New York, with branch offices in Boston, Philadelphia, Chicago, and Austin. The officers and directors of the company are said to include some of the most substantial men of Boston, Philadelphia, and New York. The most able metallurgical and scientific talent will be employed in directing the works. We should judge, from all accounts, that the association has been started upon a substantial basis. We trust that future events may prove that such is the fact.

We have been able of late to obtain but few items of interest from the mines in the immediate vicinity of Austin. Favorable accounts continue to come in from the outside districts, which appear to be scattered, at intervals, over an immense tract of country, indicating that the mineral resources of that part of the State, when they become properly developed, and provided with roads, facilities of communication, etc., must prove of incalculable extent and importance. We shall endeavor, at some future time, to give some connected and intelligible description of these outside districts—their localities, their degree of mineral development, mill facilities, etc., etc.

ESMERALDA.

The Visalia *Delta*, of a recent date, reports Mr. Wm. Fleming, Superintendent of the Oro Fino Co., of New York, as having lately passed through town, *en route* to Owen's River. A 20-stamp mill and provisions for forty men for six months is on the way in their own teams. They expect to commence operations in the beginning of April next.

The Esmeralda *Union* is informed by parties lately returned from the Hot Springs District, that there have been several large and auriferous ledges discovered in that vicinity. There is a great deal of work being done in that section, and from the loads of bullion they bring up quite often, we should judge that companies there were well remunerated for their labor.

HUMBOLDT.

According to the *Register* the Arabia mines have been sluggish, of late, the boys being somewhat pinched by the extreme cold weather. The ledges, however, have suffered no pinch. Times will be lively as soon as the winter lets up a little.

The last working of Montezuma ore, eighty tons, shows an average yield of $96.04 to the ton. By smelting process, an improvement of about seventy-five per cent. on this rate will be made. Between the lower drift and the one next above, a large mass of their best millable ore has been exposed.

The owners of the "Bald Hornet" (!) have resumed work, and the ledge looks well.

Jersey and Daisy have both struck for better weather.

Under the head of "Bullion from Oreana," the *Register* says that Webber & Co., shipped, by Moyer's express, on the 15th inst., 428.27 ounces, value $371.51.

Montezuma Co., sent, by same, 8,078.28 ounces, value $7,683.40.

A favorable report is made with regard to the progress of work on the Monticello tunnel; the foreman, Mr. J. F. Cole, is reported to have given excellent proof of his ability to conduct a work of that kind.

MINING PROSPECTS IN ARIZONA.—Coulter & Tyson's quartz mill, at Wickenburg, crushed thirty tons of rock from the Vulture lode the first week in December, and cleaned up $2,700. The mill of Bowers Bros., on Lynx creek, is doing well. They are crushing rock of the Accidental lode, which pays about $80 per ton. Everybody is in good spirits at the prospects of the mines. Every indication of richness is shown by the many quartz lodes that are tried. New lodes are being discovered every week, and all show well.

The rich mineral districts, as yet but partially prospected, are the Big Bug, Lynx Creek, Turkey Creek, Hassayamp and Quartz Mountain. In all these there are rich gold and silver mines; but, with very few exceptions, work has been suspended in these districts, and many are now waiting for the time when they can pursue their labor with safety. That there are millions in treasure in those localities there is no doubt, and it is the opinion of all who know anything of mining that superior natural facilities exist here for working the mines to great advantage.

Mechanical.

AN ELECTRIC-MAGNETIC ENGINE.

It is known to many that a well known and ingenious mechanic of this city has been for a long time engaged in bringing to a practical degree of perfection a motive engine to be driven by electro-magnetic power, to take the place of the steam engine. This gentleman has devoted years of labor and a large amount of money in making his experiments, building working models, etc. Several engines, constructed after different patterns with different modes of receiving and delivering their power, have been successively devised by him, and thrown aside as not coming up to his idea of the proper standard to insure their successful introduction. Some of these we have examined either in principle, or as working models, and they all appeared to possess a greater or less degree of merit. We were permitted to examine, a few days since, his last effort; upon which the inventor is willing to rest his reputation, and which he feels confident is capable of being constructed upon a scale of any desired degree of magnitude, from the little model already constructed, up to an engine of sufficient power to drive the largest sea going steamer afloat. According to the calculations of the inventor, in addition to a perfect immunity of danger from fire or explosion, his electro-magnetic engine also secures a large economy of space and weight over the steam engine. The machine, as now constructed, works very much like the double-acting working beam steam engine, having an arrangement something like the walking beam of such a machine, working with eccentrics and cut-offs, and driving the shaft by a crank; by which means any length of stroke may be obtained from six inches to six feet.

It would be impossible for us to give anything like an intelligible description of this remarkable and truly original invention, so totally unlike anything ever before attempted in the way of electro-magnetic engines. By a peculiarity in the form of the electro-magnets used, which the inventor claims as a part of his invention, a much larger amount of power is obtainable than from magnets used in the usual form.

The machine is even more perfectly under the control of the engineer than a steam engine can be, and it is perfectly self-regulating, so that no matter what duty is thrown off, the speed is instantaneously adjusted to the duty required. The principle of its construction is, to all appearances, as capable of being extended so as to give an indefinite amount of power, as the steam engine. If the inventor is correct in his calculations, the cost to the horse-power, of running such an engine, is very much smaller than the cost of fuel for a steam engine; while the attendance and manipulation is still more favorably disproportioned. The cost of the machinery must also be much less, and the space required for the same is largely economized.

The advantages to be derived from the introduction of some such power, as a substitute for steam, even at an expense of the same amount of cost and space, must be obvious to every one; but if that same power can be obtained at a much less cost, and confined in much less space than steam, the advantages would be absolutely incalculable. We have had no opportunity to give the invention such an examination as will enable us to express anything like a definite opinion of its merits, founded upon our own judgment. We have examined electro-magnetic machines heretofore; but never, until our attention was called to the present one, have we seen anything, where the first impressions were at all favorable to success.

The inventor proposes to take his model to the East, in a short time, and introduce it to the notice of capitalists. It is well worth the examination of intelligent mechanics; and we presume will be willingly shown to such, although no public exhibition of it will be made at present, if at all, in San Francisco. We believe the inventor is desirous to secure the assistance of capital to enable him to give it a practical trial; and as the invention is Californian in its conception, we should like to see it fully developed by California capital. It is now in a condition where its value may easily be determined by figures, founded upon a few simple experiments with the working model already constructed. We expect to give a full description of this invention with illustrations in a future number.

House Raising.—Probably the largest job of building raising ever effected was recently accomplished by Hollingsworth & Coughlin, in elevating the Robbin's iron block in Chicago, to the new street grade. The block is heavily constructed of iron and masonry, 150 by 80 feet on the ground, and five stories high, with an estimated weight of 27,000 tons. It was raised nearly three feet, with all its merchandise, and the side-walk, undisturbed, except in elevation. Not a crack in wall or walk was discovered, although it was raised with jackscrews, a means much inferior to the hydraulic machinery employed for such purposes in this city. Not less than 1,580 jackscrews were employed, and the work was completed in twenty-one days. The success of these gentlemen in this effort has already brought them offers to make a trip to Paris, France, for the moving of some heavy blocks of buildings there, which European mechanics frankly confess to be beyond their power. It has often been said that American mechanics only wish to know what is to be done, and they will find a means for doing it, but a stronger exemplification of this has seldom, if ever, been offered than in this instance.

Carriage Manufacture.—In 1860 there were forty carriage-making establishments at New Haven, Connecticut, employing 1,300 hands, and making 9,425 carriages, valued at $1,448,750. There are now thirty-five establishments in operation, employing 100 hands, and making 5,115 carriages, valued at $1,314,750. The carriages now made are larger and more expensive than formerly, as the main business in 1860 was in making light and cheap carriages for the Southern market. The average value of those made in 1860, was $103, and the average value of those made this year is $242. The Southern carriage trade has revived since the war, and some of the manufacturers are devoting themselves almost entirely to filling Southern orders.

Improvement in Brick Making.—Mr. John McMurtry, of Louisville, Ky., has recently put into operation an improved brick making machine, for which he has taken out a patent, and which is described as follows:

The clay is taken from the ground by means of elevating cups attached to india rubber belts, and is emptied into two large wooden tanks at the top of the machine, where it is ground and tempered by steam, which is let in through small apertures in the cylinder. It then passes into the molds on the large cylinder, where, after receiving a pressure estimated at eight tons, the bricks drop upon an india rubber belt, and are carried away to dry and be burnt. The large cylinders make twenty-five revolutions a minute, and at each one discharge eight bricks, or twenty per minute. The capacity of the machine, it will be seen, is 12,000 per day of ten hour's work. The bricks, on leaving the mold, require very little drying, from the fact that the immense pressure put upon them drives almost the entire moisture out.

The machine is highly spoken of by competent judges, and the company owning it are giving a practical demonstration of its value to large numbers of persons who daily visit the premises to witness its operations.

Mr. Wm. N. Shaw, a mechanic in the employ of the Union Company at Copperopolis, has recently invented a new grapple for safety cages, to prevent their falling in case the rope or chain breaks. It is said that the invention is very simple and effective, and can readily be attached to any cage. Mr. Shaw is about to apply for a patent.

Saw mills were first used in Germany in the 14th or 15th century; and in 1663 one was erected in London, by the side of the river Thames.

THE STEAM SYPHON PUMP.

This is the name given to a new pump recently invented in New York, and for the manufacture and sale of which a company has been formed in that city. This pump is a device for raising and forcing water by the direct action of steam, and is operated by simply attaching a globular-shaped chamber to a steam pipe, at any convenient point in its length, and connecting that chamber, at any convenient angle, with the water to be removed. The jet of steam, passing in a direct line through the chamber, creates a vacuum in the chamber into which the water rushes, and from which it is forced by the current of steam, much after the manner in which the feed water is forced into the boiler by Gifford's injector. The invention is extremely simple; not at all likely to get out of order, and may be readily put up at any place where communication can be had with a steam boiler. The cost of an apparatus to throw from 100 to 3,600 gallons per hour, is only from $20 to $200.

This pump is so constructed that there are no moveable parts to it; it is without valve or plunger, and so arranged that all bodies of less diameter than the suction pipe, such as fruit, grain, sand, mud, cinders, coal, brick-bats, etc., etc., pass freely through it without in the least impairing its operations. These qualities would appear to give it immense advantages over any other machine as a bilge-pump for steam vessels. For employment on board of steam vessels, where an abundance of steam is always at hand, it must be especially serviceable. In case of leakage, the whole power of the steam can be employed, if there are pumps enough on board, to free the vessel of water. Its employment for such purposes is strongly recommended by numerous officers and persons connected with the government and mercbant marine.

Captain M. Hiller, of this city, has been appointed agent for the company for the Pacific coast, and a consignment of these pumps is expected by the next steamer. They will be received and may be examined at the Union Foundry.

Henry Steens is building at his yard in Greenpoint, L. I., a large wooden steamer for the Pacific Mail Steamship Company. This vessel is said to be the largest wooden steamer ever built. She is 5,000 tons burthen, 300 feet in length, 50 feet in breadth, with 31 feet 6 inches depth of hold. She is to be constructed from the best material, and will cost over $1,500,000.

American Pianos in Europe.—The New York *Tribune* says that the house of Steinway & Sons, of New York, turned out over 203 pianos during the month of November last, of which number twenty-eight were first-class full concert grands—*eight of which went to Europe.*

Hint to Railroad Men.—A St. Louis paper gives a description of a new invention said to be now in use on the street railroads of that city, and called a "conscience meter." It records each passenger who pays the conductor his fare, and registers the amount received. The instrument is buckled around the waist of the conductor, and the face, which resembles the dial-plate of a gas meter, with three hands, is locked up, to prevent the conductor from turning it back.

The Advantages of Low Carts.—To illustrate the saving of labor by the use of low carts, the *Agricultural Gazette* says that a man in spading will turn over about one hundred tons of earth per day. If he had to throw it over the side of a cart or wagon five or six feet high, he could not handle more than one-fifth of the weight he lifted in the first place. Consequently, for every foot the cart is lowered a fifth part of the labor will be saved.

Ingenious.—The latest product of Yankee ingenuity is the self-ringing mop. By the use of it house-cleaning becomes a fine art. It is neat, durable, labor-saving, and there is no longer need of scalding the hands in water or getting on the knees to do the scrubbing out.

Agricultural Invention.—Mr. Hill, of the firm of Hill & Bradley, Marysville, has invented a grain-sower, which for its simplicity, cheapness and serviceableness, promises to come into general use among the farmers of California.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

Office of the Mining and Scientific Press—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the Mining and Scientific Press. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, presenting it to the proper Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensue. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, either poor or rich, an equal chance of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unequalled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficient, however, for to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, and the fee for preparing the same will then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3½ yrs and 6 mos...	$10
On every application for a design, for seven years.....	15
On every application for a design, for fourteen years.....	30
On every application for a patent, for seventeen years...	15
On every caveat.....	10
On issuing each original patent.....	20
On filing a disclaimer.....	10
On every application for a re-issue.....	30
On every additional patent granted on re-issue.....	30
On every application for an extension.....	50
On the grant of every extension.....	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C.	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No. 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

San Francisco:

Saturday Morning, Feb. 3, 1866.

MINING INTELLIGENCE EXCHANGE.

The proprietors of the MINING AND SCIENTIFIC PRESS have long had in contemplation the establishment of a "Mining and Mechanical Exchange Room," which shall be *free*, at least to all persons visiting the city, if not to actual residents. The precise plan and scope has not yet been fully matured; but we have been collecting facts and information, with such an object in view, for the last three years, which will soon be arranged in a convenient form for reference, and which will present the fullest and most perfect record and history of California mining, which it will be possible to obtain. The entire record will comprise a number of large volumes of printed matter and manuscript—the one-tenth part of which is not within the reach of any other parties than the proprietors aforesaid. We shall soon be able to give our friends and the public the benefit of the same.

THE REESE RIVER MILLS AND MINES.—The *Reveille* is after our correspondent "J. L. Ormton," with a sharp stick; so also is a correspondent, who writes us from that region under his proper signature; but whose communication came to hand too late for insertion in our present issue. It will appear next week. "Ormton," in his communication, stated among other things, that there were more stamps at work or nearly ready for work in and about Austin, than could possibly find employment—their number was over 250, while it would be impossible "at any time during the next twelve months to keep more than sixty stamps in full work, from the mines of the Reese River district." The *Reveille* questions the general terms of the statement, and adds that our correspondent has set the number of stamps at least 100, in number too high. A probably correct and very favorable tabular exhibit of the yield of the Reese River mines will be found elsewhere in our issue of to-day, to which we would refer our readers for information in this respect. We can assure the *Reveille* that "J. L. Ormton" is no myth, although the signature is an assumed one.

THE FLOOD ON THE SACRAMENTO.—The Sacramento river stood twenty-two feet eight inches above low-water mark, on Friday of last week. It maintained its hight, with but little variation, throughout the day. This is but *six inches lower* than the flood-mark of January 10th, 1862

THE PROPOSED MINING COLLEGE.

The establishment of a school or college for the purpose of teaching the sciences bearing upon mining, agriculture and the mechanic arts, is a step which, if well directed at the outset, and placed upon a liberal basis, cannot fail to produce most beneficial results. Much will be lost, or rather will fall short of attainment, if unwise counsels prevail.

The proposition to open a school of technical instruction for miners, is naturally viewed with some degree of jealousy by those who have added a little practical education to a mere empirical knowledge of the theory of mining; and by those who, after long years of toil and experience, have acquired a degree of knowledge which enables them to manage with considerable success, in some particular locality, or in a peculiar class of mineral, with which they have been long familiar. The first, fear an exposure of their ignorance; while the latter are jealous of the proposed introduction of a class of men into their midst who have been raised to the same point as themselves, by a sort of royal road, which they have never been permitted to travel. Such objections, of course, are not worthy of consideration.

There is still another class who honestly fear lest the practical character of the miner would be injured by placing too much dependence upon theory alone. Such fears are groundless, as it is not expected to substitute the instruction proposed for the experience to be gained only by patient and persevering labor. Even a superficial mining education is not without its benefits; for, let any good, practical miner only acquire a fair amount of general knowledge in the science of mining, in addition to his peculiar skill, and he will be from that time on freed from the vexatious interference of shallow pretenders and charlatans, who, possessing neither practical knowledge nor scientific acquirements, go about the country, with a swagger and pretentious confidence of knowledge, seeking to impose their humbuggery upon uneducated mine-owners.

One great need of something more than mere practical experience for success in mining, grows out of the varied circumstances under which mineral deposits occur in different districts, and the constantly changing geological features by which they are surrounded; to a proper knowledge of which technical instruction in schools is an absolute necessity. One of the chief objects of the institution proposed, is to fit the miner by a general examination and study, both theoretically and by observation in the field and mine, of all these various phenomena, and the different processes used in various localities, to suit his machinery, and his processes, and his general mode of work, to any particular locality in which he may be engaged, and to any condition under which he may find the mineral placed, which he may be called upon to treat. Without the education proposed, he may be constantly subjected to the imposition of charlatanism, or he may be led into pecuniary ruin by the one-sided knowledge or local prejudices which he has impercceptibly acquired by his isolated, practical education.

Every person intimately acquainted with early mining in Washoe, knows that millions of dollars were sacrificed there by the ignorance of those in charge. Men were sent to take charge of mines there, who were never under ground in all their lives, unless on a visit to a wine cellar!—while mill-men and amalgamators were put in charge of works who were ignorant of the very first principles of both mechanics and metallurgy. And who does not know that such men generally pretend to three-fold the knowledge of those who are experienced and educated; overwhelming and disgusting with a weight of words and assertions, those more modest and unassuming men who thoroughly understand their business.

Innumerable instances might be mentioned, both in this country and elsewhere, where immense sums of money have been lost by the employment of such men.

We will, next week, endeavor to point out some of these instances, and to show where our mines and miners would be directly benefitted by the establishment of a school of the character proposed.

YIELD OF REESE RIVER ORES.

We give below, compiled from the Reese River *Reveille*, the returns of the bullion-producing mines of Lander county (Reese River district), as shown by the Assessor's books, for the third and fourth quarters of 1865; showing the amount of ore worked from each mine, and the average yield per ton. The table will be found very interesting:

	THIRD QUARTER.		FOURTH QUARTER.	
Name of Mine.	*Tons.*	*Av. Yield.*	*Tons.*	*Av. Yield.*
Aquila Real	..	....	½	89 98
B. & N. Co., N'd Queen	..	....	46¼	91.61
Confidence	..	....	1	143.07
Dana	60	160.00	67	145.88
Echo	..	....	4	36.29
Esther	21	133.08	..	....
Edsell	..	....	4¼	61.44
Fenlao Star	..	....	2	86.50
Florida	7	184.80	..	....
Fort Snelling	..	....	1	100.04
General Hooker	..	....	2	48.00
Graham & Heoning	8	257.18	..	....
Great Eastern	..	....	12	98.22
Grass Valley	..	....	1	69.62
Henry Clay	..	....	37¼	67.42
Hornet	9	167.03	..	....
Hubbard	26	98.58	26	104.09
J. S. Morris	..	....	1	83.60
Maggie	..	....	13	91.00
Maple Leaf	20	360.00	..	....
Manhattan	370	163.44	67	96 28
Magnolia	..	....	1¼	148.49
Mexican	10	136.09	..	....
Morgan & Muncey	..	....	6¼	76.42
Morse	..	....	30	156.15
Midas	..	....	94	90.77
Mellicana	..	....	5	60.60
Naiad Queen, No. 1	15	384.30	18	173.48
North River	9	170.19	18	256.27
North Star	37	86.00	..	....
Niagara	..	....	15	32.00
Nickerson	..	....	1	64.00
Primrose	..	....	4	75 81
Quintera	7	318.42	4	51.72
Revenue	11	325.55	2½	73.91
Rock Curle	7	275.54	..	....
Romeo	..	....	1	130.75
Social (Gilligan)	200	106 56	..	....
Savage	154	246.00	280¾	97.38
Savannah	..	....	1½	134.43
Savage Consolidated	..	....	26	157.29
Silliman	..	....	6½	123.65
Seven Stars	..	....	1	100.04
Stephen A. Douglas	..	....	3	127.75
Silver Hill	5	118.00	..	....
Shoshone	41	112.20	..	....
Tesoro	2	147.47	..	....
Taylor & Passmore	6	171.31	..	....
Timoc	6	200.09	..	....
Troy	..	....	3	171.01
West Point	23	128.67	10½	90.38
Whitlatch Yankee Blade	161	129.82	70	359.51
W R Strong	..	....	1	40
Whitlatch Union	..	....	171	50.07
Yankee Blade	..	....	237	41.35
Lent & Chase	..	....	14½	101.06

The average yield per ton for the third quarter, of all the rock crushed in the district, was $182.75; that of the fourth quarter, was $117.89. Quite a discrepancy will be noticed in the yield of the ore from the same mines for the two quarters—the most marked discrepancy being in ore from the Naiad Queen No. 1, the Savage, and Whitlatch, Yankee Blade. It is reasonable, says the *Reveille*, to assume—indeed, we have been so advised in the case of one mine—that the higher figures resulted from working ore only of the first-class. It will also be observed that a number of mines yielding bullion in the third quarter are not included in the returns of the fourth quarter, and *vice versa*. Several of the mines have been sold, and a large number are under negotiation, while a still larger proportion cannot be profitably worked without the aid of machinery. The long-continued cold weather, as well as the condition of several of our mills, have greatly hindered the production of bullion during the last quarter. It is quite evident from an examination of the Assessor's returns for the last three quarters of 1865, that there are in this county over one hundred mines that could be made to produce bullion profitably, after the expenditure of a moderate sum to furnish them with the necessary machinery. Too many of them are owned by poor men, who have neither capital, system, nor harmony. In this county, at the present time, we doubt if the most systematically-worked mine of the best-managed mill extracts and reduces its bullion at a cost of less than $40 per ton, while in the greater number of cases we believe it will reach $50.

THE RESTLESS MINER.—The Humboldt *Register* says: "It is strange how the passion for finding new diggings will fasten on a man who once allows himself to sit in front of a frying-pan and bundle of blankets, on the ridge-pole of a sore-backed horse. With plenty of excellent ledges already exposed at their doors, these prospectors keep up their pursuit as if it were a mania; as with many it seems really to be.

IT is stated that an English company have undertaken to build the railroad from Shingle Springs to Carson City and Virginia.

OUR GRAVEL DIGGINGS.

Mills for crushing cement gravel are now being built all through the central portions of the mining regions, from the banks of the Yuba through Nevada, Placer and El Dorado counties, down into Calaveras. In our to-day's mining summary notices will be found of the successful working of these mills in the upper portion of Placer county, and of the recent startiag of one by Messrs. Kaapp, Wilcox & Co., at Yaqui Camp, near San Andreas, in Calaveras county. The fears formerly entertained by many that our placer diggings were soon to be exhausted, are rapidly being dispelled. The fact is we are just beginning to open them up. The present system of rivers contains but a small portion of the auriferous gravel of California; and it is only the gravel along the immediate beds and banks of those streams, and the more shallow hill diggings, which occur at intervals, between them, which our mines have yet attached to any considerable extent. The immense placers formed by the ancient system of rivers which are now known to have been even more extensive than those at present existing; together with the extensive and irregular deposits of gravel, due, in all probability, to still more ancient glacial action, are as yet scarcely entered upon by our placer mining operations.

Capital and machinery, scarcely less in extent to that required for the working of our quartz mines, will be needed to develop these ancient placers. Mills must be erected and extensive drain tunnels driven, and in some cases pumps and hoisting works erected to get at these rich deposits. A large number of mills, known as "cement mills," are already engaged in taking out the gold from this cement gravel. They will eventually be scarcely, if at all inferior either in numbers or importance, to our quartz mills. The attention of capital is already being turned in that direction, and millions of dollars will soon be absorbed by this promising branch of our mining industry. We hope soon to be able to lay before our readers some important facts with regard to these cement diggings, which will, probably surprise our own people, and which cannot fail to exert an important influence abroad in opening the minds of capitalists to the future importance and magnitude of our placer interests which, instead of being on the wane, are in reality but just beginning to be developed.

AN IMPORTANT MINING ENTERPRISE.

The Grass Valley *Union* says that a company is in process of organization for the construction of an extensive drainage tunnel, to commence at some point on Wolf Creek, below Allison Ranch, and intersect several ledges, somewhat upon the same principle as the Amazon tunnel, in Palmyra district, Nevada, and the Sutro tunnel in Virginia. The number of shares is fixed at 1,000. The par value of the shares has not been determined, but in order to prevent a monopoly of the enterprise by capitalists, it has been decided that no shareholder shall be entitled to represent more than one share. The first payment for a share shall be five dollars—with installments of one dollar each, to be levied as the work progresses. Some seventy names have already been subscribed, and the list is rapidly filling up. Miners of much experience and men of capital are interested in the work. Every miner acquainted with the line of this proposed tunnel must see at once the advantage of such a work. It will drain, to a great depth, some of the richest mines in Grass Valley, and may be extended almost indefinitely. It can scarcely fail, in its progress, to open up new and valuable mines. The idea is worthy the energy and enterprise of that important mining locality.

THE EAGLE MINE.—We yesterday saw a fine golden brick, the result of a late crushing at the Eagle mine in Amador county, and near West Point. Twenty-two and a half tons of rock were crushed, realizing $1,006.50—about $44 per ton. The gold assays $16.50 to the ounce. The Secretary's letters speak well of the appearance of the mine and rock, and the indications are that even a better result will be realized from the next "clean up."

Rich Rock from the Louisiana.—We have seen some very rich specimens from the Louisiana lode, near Coulterville, Mariposa county, which mine we noticed, at considerable length in our issue of the 20th ult. These specimens are from a newly opened locality on this mine, and more than justify the impressions of its value which we have already given. The enterprising proprietors of this mine, Judge Heslep of this city, brother and son, are determined to have it properly and thoroughly opened and worked. To this end they are spending some money in the way of experimenting. The Hagan desulpharization process, and the Ryerson amalgamating process, will both be thoroughly and practically tested. A trial furnace, for the former process, capable of roasting ten tons at a charge, has already been once fired up, and worked very satisfactorily. It is designed to subject the quartz, after passed successively through the Hagan furnace and under the stamps, to the Ryerson process, for amalgamation, in the presence of superheated steam. The result of these experiments will be looked for with much interest.

The Excelsior Mines no Myth.—The reporter of the Virginia *Enterprise*, who lately visited the Excelsior mines, was very much taken aback, a few days since, by a San Francisco gentleman who seriously approached and inquired of him if there was really any importance to be attached to the reports from those mines. The reporter aforesaid immediately took the doubting Thomas to see a large collection of selected rock from that locality, which would assay from $250 to $50,000 to the ton. The doubter being convinced that rock which could produce such magnificent specimens, must be valuable, in the aggregate, exclaimed in substance, "Why, with such rock so near, are the people of Virginia City talking so much about going to Montana?" The exclamation was a very reasonable one; but somehow or other people *will* run off to unexplored fields, and leave much richer ones close at home; there is something so fascinating about distant mines—it is perfectly irresistible to some miners, and neither facts nor logic can drive it out of them.

The New York *Times* is discussing the question of an underground railroad, for the relief of Broadway, and showing up its advantages over the common tracks in use. It is estimated that the total cost of such a road, extending from Bowling Green to Central Park, would be about $8,500,000. The estimated receipts for the first year are $1,500,000, and the running expenses $541,000—making the net earnings $958,000, or about 12 per cent. on the cost. This estimate is based on a traffic of 20,000,000 passengers, at an average of seven cents per head. The estimate of traffic is considered quite within bounds, in view of the fact that the traffic of the whole city is computed at no less than 100,000,000 per year. Underground railroads have proved a pecuniary success in London, and are now found an almost indispensable convenience. The situation of New York will render their eventual establishment in that city equally indispensable, and that at an early day.

Silver Ore from Lower California.—The Kohler Bros. Silver Mining company received, by the last trip of the John L. Stephens, from their Espinocena mine, in the San Antonio district, 1,685 bags, or 170,000 tons of second-class ore, assaying on the average $90 to the ton, of 2,000 pounds. The reports of W. V. Roberts, Esq., the intelligent superintendent of the company's mines, continue to be of the most favorable description. A former shipment of twenty-seven tons gave an average assay of $115 to the ton. But one assessment, and that of only one dollar per share has been levied, in the last fifteen months. The same trustees, who have managed the property so well for the past year, were, on the 8th instant, re-elected for another term.

A strike among the colliers of Northumberland, England, has lasted twenty-three weeks, and entailed a loss of $150,000 upon the employers alone.

LIST OF OFFICERS OF MINING COMPANIES AND INCORPORATIONS.

[PUBLISHED IN THE FIRST ISSUE OF EACH MONTH.]

[Below we give the date of recent meetings held in this city and the names of officers chosen or appointed. Every bona fide company is invited to send us the result of their election, to be thus put on record, gratuitously, with any other facts of general interest.]

Alameda Coal M. Co.—Jan. 8th. Trustees: B. Dean, B. Eug. Auger, W. B. Agard, T. P. McMahon, A. Wapler. President, B. Dean; Secretary, Theo. Reuter; Treasurer, B. Eug. Auger; Superintendent, A. T. Ladd.

Kohler Brothers Silver M. Co.—Jan. 8th. Trustees: Stephen Otis, I. S. Polack, I. W. Felt, I. Ward Eaton, Wm. Fischel, B. L. Brandt, G. J. S. Hyams, Q. A. Chase, J. Naphtaly. President, Stephen Otis; Secretary, R. Wegener; Treasurer, G. J. S. Hynms.

RECENT INCORPORATIONS.

Keystone Consolidated M. Co., located near Amador City, Amador county.—Capital stock, $600,000, divided into 600 shares, of $1,000 each. Trustees: John S. Henning, J. W. Gashwiler, M. C. Hillyer.

Pacific Coal Co., Contra Costa county.—Capital stock, $50,000, divided into 250 shares, of $200 each. Trustees: John Hahn, S. Lachman, David Stoddard, L. Yappe, C. S. Higgins.

San Ambrosia Silver M. Co., San Antonio, Lower California, Mex.—Capital stock, $600,000, 3,000 shares, $200 each. Trustees: Joseph Kohler, Jacob Kohler, R. Kohler.

Rippon G. & S. M. Co., Silver Mountain, Alpine county.—Capital stock, $300,000, 300 shares, $1,000 each. Trustees: John Cahalin, C. L. Gilbert, M. C. Owens, Curtis Palmer, Thos. Taylor.

Hope Gravel M. Co., Grass Valley, Nevada county.—Capital stock, $60,000, 3,000 shares, $20 each. Trustees: Geo. E. Hinckley, H. J. Paine, A. C. Taylor, J. A. Ramsoa, W. A. Bateman.

To Correspondents.—We have a large mass of communications on hand—all good—which we will endeavor to find place for as fast as possible. Among those not yet announced are the following: "R. K.," of Austin, Reese River; two communications from "M.," of Brown's Valley, Yuba county; two from "X.," of Partzwick, Mono county; another letter from our correspondent "D.," who writes, this time from Folsom; "****," from Aurora, Nevada; "Juanito," from San Antonio District, Nyo county, Nevada; and "A. H.," from Weston, Mammoth District, Nevada. We have also a very well written communication from "O. W. E.," upon the mining title question, with regard to which we should be pleased to see the writer.

To Metallurgists and Miners.—We would call the especial attention of metallurgists and miners to the card of "B. B.," under the head of "Metallurgists and Miners," which will be found in another column. The gentleman advertising is a person of undoubted abilities in his speciality, and one who has had much practical experience both here and in Europe. He is prepared to undertake the construction and management of metallurgical establishments for the reduction of the ores of copper, silver or lead. Undoubted California reference will be given. He is also prepared to give advice and plans, as consulting expert and engineer.

Prospecting to Some Purpose.—The Reese River *Reveille* gives the particulars of a pretty good prospecting operation, by Mr. John Sisson, of that place. In November last Mr. S. discovered and located the Fairview lodge, in the Silver Peak District. Mr. Samuel Martin, of the Vanderhilt mine, was joint owner with him. Mr. Sisson, the discoverer, has just disposed of his one-half interest for the sum of $75,000. A splendid result achieved in less than two months.

Mining Suit.—The Sonora *Democrat* says suit has been brought against the original owners of the Rawhide Ranch mine, by the San Francisco company that bought from them, and afterwards yielded possession to the New Yorkers. They charge fraud in the transaction. Several of the first company are under arrest awaiting a hearing. The full particulars of the transaction, out of which this suit has grown, were given in the issue of the 14th of October last.

Detention of the Patent Blasting Oil.

Messrs. Editors:—We beg to inform you that the reason why we are not yet in possession of the first shipment of Nobel's Patent Blasting Oil, which arrived some time ago per steamer from Hamburg at New York, is because the Mail Steamship Company, believing the same dangerous, refused to receive it on board their steamers. Certificates from the first chemists of Europe to the effect that this Blasting Oil, when packed for shipment, is in no wise dangerous, have been forwarded to New York, and we apprehend no further delays in shipping, as soon as these certificates have been received. On receipt of the first sample lot we shall cause public trials to be made. Your obedient servants,

Bandmann, Nielson & Co.,
Sole Agents for Nobel's Nitro-Glycerine.

Pah-ranagat Valley.—The Reese River *Reveille* has something further from these newly discovered mines, which we described at considerable length in our issue of the 9th of December last. The information reached that paper through a letter from E. C. Hammond, under date of December 21st, 1865. Mr. H. writes as follows: "We are only about 200 miles from Austin, but no white man has ever made the trip. Henry Butterfield will go straight to Ruby with Indians for guides. These mines exceed anything I ever saw. No mines in your section can compare with them. This spring they will be known. There is no snow here. By looking on Bancroft's latest map you will see that the Big Muddy empties into the Colorado. It has two sources—one, the east, is in Meadow Valley, and the other, the west, is in Pah-ranagat Valley." This Butterfield—who has for a long time been employed at the Indian agency as interpreter—was sent to the Pah-ranagat Valley several months since from Fort Ruby, by Lieutenant Seamands. He traveled directly from Ruby to Pah-ranagat.

Hydraulic Mining in Montana.—An order has been received in Sacramento for two pipes or nozzles to be used in hydraulic mining, to be forwarded to Montana. The person sending the order speaks very enthusiastically of the mineral richness of that country.

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DEWEY & CO., Proprietors,
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PERPETUAL CALENDAR

Shows without hesitation

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—OR—

Any Day or Date in the 19th Century,

Rendering it a prompt and accurate

ASSISTANT RECKONER,

Besides answering fully
And Conveniently
All the Purposes of the
Ordinary Counting-House Calendar
During the Nineteenth Century.

The Calendar for each month is arranged in a single column, as in the regularly published (book) Almanacs, rendering it more easy for reckoning, in most instances, than the customary Counting-House form of Calendars.

It is simply understood.
It affords the same reference from year to year.
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Its usefulness increases by use.
Once used it becomes indispensable,
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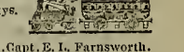
Pacific Mail Steamship Co.

The following Steamships will be dispatched on the following named days.



February 10th—GOLDEN AGE.....Capt. E. L. Farnsworth. Connecting with ATLANTIC, Capt. Maury.
February 19th—GOLDEN CITY.....Capt. F. R. Baby, Connecting with NEW YORK, Capt. Horner.
February 28th—COLORADO.....Capt. Jas. T. Watkins. Connecting with HENRY CHAUNCEY, Capt. Gray.

From Folsom street Wharf

At 11 o'clock A. M., punctually to the hour,

For Panama.

Passengers will be conveyed from Panama to Aspinwall by the Panama Railroad Company, and from Aspinwall to New York in the splendid steamships of the PACIFIC MAIL STEAMSHIP COMPANY.

Steamers of this line will be dispatched the 10th, 19th and 28th of each month. When these dates fall on Sunday, the steamer will leave on Saturday preceding.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departure of 19th connects with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and steamer running to Guayaquil, touching at Tumaco, the port of the new mines, and P. R. R. Co.'s steamer for Central America.

Cabin passengers will be berthed for Atlantic steamer.

A Baggage Master will be sent through each trip.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For merchandise freight apply to Wells, Fargo & Co.

OLIVER ELDRIDGE, Agent.
Corner Sacramento and Leidesdorff sts.

A MAINE paper states that a colony of fifty families, principally from that State, is to embark for Palestine in July next. They propose to settle at Jaffa, the ancient Joppa, building lots having been purchased, and will carry out with them Yankee improvements.

TO YOSEMITE.—A petition is receiving names for a State appropriation of $25,000 toward the construction of a wagon road to Yosemite Valley. By an Act of Congress this Valley and the Mammoth Tree Grove are protected from land speculators.

A HIGH wind which prevailed in Queen's county, Ireland, a short time since, blew the thatch from the cottage of one Patrick Murphy, and revealed to him a horn filled with 4,000 guineas and several Spanish dollars.

IF we would have powerful minds, we must think; if we would have faithful hearts, we must love; if we would have vigorous muscles, we must labor; and these three—thought, love, and labor—include all that is valuable in life.

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Pacific Glass Works

Are now prepared to execute orders for the manufacture of

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MARBLE WORKS,
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ARTIFICIAL LEG,
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15v10-1m*

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Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.
The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

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MANILA CORDAGE,
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Entrances opposite City Hall, Merchant street, and 636 Clay street. 14v11tf

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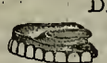
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Address - - - - - San Francisco. 25v9

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22q*

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San Francisco, Oct. 12, 1865 5v11tf

A Business Compliment.

PETALUMA, Oct. 4, 1865.

MESSRS. DEWEY & CO.—Gentlemen: Your note informing me that my patent for Crushing and Baling Machine is ordered to issue is at hand. Please accept my thanks for the prompt and business like manner with which the case has been conducted, and inclosed find twenty dollars for balance Government fees. Respectfully, etc.

JACOB PRICE.

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RECEIVED THE FIRST PREMIUM

From the ROYAL POLYTECHNIC SOCIETY, in Cornwall, and was highly recommended by the Commissioners as the most Simple and Effective Concentrator for all kinds of Ores.

Every Quartz Mill ought to have them, as they not only save Gold and Silver, but also the Quicksilver and Sulphurets, without extra labor. They can be built entirely of wood at the mine, and will separate more perfectly in one operation, than any other Concentrator in use. Apply to

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METALLURGICAL WORKS,
—AND—
Practical Mining School,
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THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the so-called "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

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The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

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With Instructions for its Use.
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We will make advances upon Ores of Copper.
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Agent for Messrs. Vivian & Son and Dillwyn & Co., Smelters at Swansea,
Is prepared to buy in any quantity
COPPER, SILVER, GOLD, LEAD
AND OTHER VALUABLE ORES;
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☞ Full value paid on delivery in this City. ☜
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Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done.
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Potassium, Magnesium,
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PURE CHEMICALS.
Just received and for sale by
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And offer as favorable terms as any on the Pacific Coast.
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Fine Custom Made Clothing
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AT PRICES THAT DEFY COMPETITION.
Our Stock of Clothing Consists of
ALL THE LATEST STYLES
BOTH OF MATERIAL AND FINISH.
A Large Assortment of
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AT EXTREMELY LOW PRICES.
J. R. MEAD & CO.,
8v10 Cor. of Washington and Sansome streets.

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A CONTRACT WILL BE LET TO A RESPONSIBLE party to sink an Oil Well, as deep as may be required, on land belonging to the "Eel River Oil Company," situated in Humboldt county, Cal. For particulars, inquire at the office of the Company, No. 426 Jackson st., up stairs.
12v11-1m E. H. WILSON, Secretary

Bacon knelt down before composing his great work, and prayed for light and inspiration from heaven. Pope never could compose well without first declaiming at the top of his voice, and thus rousing his nervous system to its fullest activity.

As daylight can be seen through very small holes, so little things will illustrate a person's character. Indeed, character consists in little acts, daily life being the quarry from which we build it up, and rough hew the habits that form and stamp it. That is so.

A steamer has succeeded in passing through the famous Dutch Gap Canal. The Silas O. Pierce, a vessel of forty-three feet beam, performed that feat.

Mining and Scientific Press

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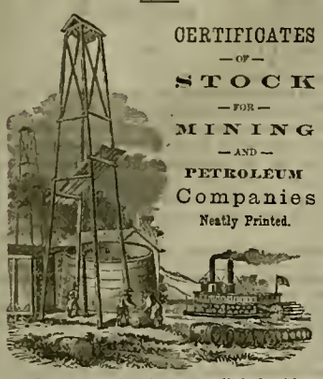
No. 505 Clay street, corner of Sansome.



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For further information, send for Circular.

3v12-3m C. J. FLATT, Principal.

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Conducted by the Fathers of the Society of Jesus.

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For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.

3v11 REV. A. MASNATA, S. J., President.

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STEAM ENGINE, FLOUR AND SAW MILL

And Quartz Machinery, Printing Presses,

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MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

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Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

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Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,

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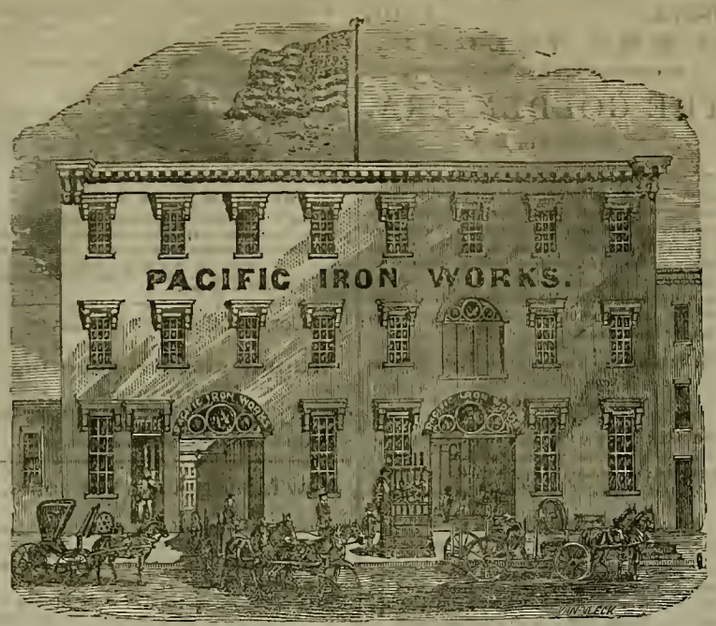

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The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

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STEVEN'S PISTON PACKING RINGS.

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Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

Miners' Foundry

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EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

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Machinery, Mining Pumps, Amalgamators,

Retorts, Etc., Etc.

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ROWLAND, ANGEL & KINO.

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Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

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Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

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Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

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All work done in the best manner at the lowest cash prices.

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Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

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By Express.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the Mining and Scientific Press, in San Francisco, and to receipt for the same.

QUARTZ OPERATOR'S
HAND BOOK.

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

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Authors and Publishers.
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The Quartz Operator's Hand Book is presented to the public as a carefully prepared epiteme of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

The work also contains an original and highly interesting discussion of the tractery and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belsbaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable Quartz Miner's Hand Book.

Table of Contents of this book will be found on pa 415 of the Mining and Scientific Press of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of ALVA L. STILES, deceased. Order to show cause why order of sale of real estate should not be made.

It appearing to the said Court, by the petition hereto fore presented and filed by John M. Stiles, the Administrator of the estate of Alva L. Stiles, deceased, praying for an order of sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts, expenses and charges of administration that have already accrued, and the debts, expenses and charges of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said Administrator to sell so much of the real estate of the said deceased, as shall be necessary for the purposes above-mentioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts. } WM. LOEWY, Clerk.
{ cancelled. [Seal.] }

By A. J. Jechers, Deputy Clerk.

Thos. B. Bishop, Attorney. 2v12-4w

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of SAMUEL L. DENNISON, deceased. Order to show cause why Order of Sale of Real Estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by E. E. McNear and Patrick Scully, who are creditors of said Estate of Samuel L. Denison, deceased, praying for an order of Sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts outstanding against said deceased, the debts, expenses, and charges of administration that have already accrued, and the debts, expenses, and charges, of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said petitioners, authorizing and requiring the Administratrix of said estate to sell so much of the real estate of the said deceased, as shall be necessary for the purposes above-mentioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County, and that a citation issue to Maria J. Dennison, the Administratrix of said estate, and be served upon her at least four weeks prior to the time above-mentioned for said hearing.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand, and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, } WM. LOEWY, Clerk.
{ cancelled. [Seal.] }

By A. J. Jechers, Deputy Clerk.

Porter & Holladay, Attorneys for Petitioners. 2v12-4w

OFFICE OF THE COUNTY CLERK OF THE CITY AND County of San Francisco, State of California.—In County Court.

In the matter of the application of LA MORRONENA SILVER MINING COMPANY, for Order of Dissolution.

Notice is hereby given, pursuant to law and an order of the Hon. Samuel Cowles, County Judge of said City and County, this day made, that La Morronena Silver Mining Company, a corporation duly organized and doing business in said City and County, has made application, by petition duly filed, that said Company be dissincorporated and dissolved, and that said application will be heard by and before the Hon. Samuel Cowles, County Judge aforesaid, on the seventeenth day of February, A. D. 1866, at 10o'clock A. M., in the Court Room of said County Court, in the City Hall Building of said City and County.

Witness my hand and the Seal of said County Court, this eighteenth day of January, 1866.

{ Seal and U. S. Rev. Stamp, 50c, canceled. } WM. LOEWY, County Clerk. } By J. Naphtaly, Dep. Co. Clerk. 3v12-4w

1852. 1866
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Fourteenth Year of Publication.

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Founded in 1852.

The oldest Weekly Paper in the State, permanently established, and more widely circulated at home and abroad than any other on the Pacific Coast. In California, the Atlantic States, and throughout the entire field of its great and rapidly increasing circulation, The Golden Era is universally regarded as a Literary and Family Journal of unequalled excellence. Among its contributors are all the best writers on this side of the Continent, and correspondents and contributors of distinguished ability in New York, Paris and London.

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OUR NEW YORK AGENCY.

Mr. Geo. M. Newton is our authorized agent in New York City, and will receive advertisements and subscriptions for the Mining and Scientific Press at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "Stockholder," No. 72 William street.

Constitution and By-Laws
—OF—
Mining and Prospecting Companies

Elegantly printed, with care and dispatch, at the office of the Mining and Scientific Press.

☞ Orders from the Interior faithfully attended to.

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Animas Silver Mining Company, Ventenas, Durango, Mexico.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 30th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Lansing Haight	56, 67, 59, 60 62, 63	97	$38 80
Lansing Haight	unissued	155	62 00
Edwards Woodruff	5	60	20 00
Mrs. Caroline E Woodruff	106	150	60 00
Jerry Parsons	84	100	40 00
J Filchrown	828	60	20 00
P Decker	48	60	20 00
B Bigelow	96	60	20 00
W C Belcher	86	10	4 00

And in accordance with law, and an order of the Board of Trustees, made on the 30th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Secretary Pro tem., Thomas Hill, 622 Montgomery street, on the 19th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

feb3 THOMAS HILL, Secretary Pro tem.

Blue Ledge Gold and Silver Mining Company, Lander County Nevada.

Notice.—There are delinquent upon the following described Stock, on account of Assessment levied on the 2d day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Aron, Jos	96	1	$1 00
Aron, Simon	118	1	1 00
Abrams, M	229	1	1 00
Beer, Julius	12	10	10 00
Beer, Julius	95	1	1 00
Beer, Julius	104	7½	7 50
Beer, Julius	106	15	15 00
Beer, Julius	120	5½	5 50
Bachman, D	221	1	1 00
Biddleman, E J	191	7	7 00
Cutter, H F	208	6	6 00
Cutter, H F	231	67	67 00
Cohn, C	61	5	5 00
Francis, D B	3	6	6 00
Frank, J	222	1	1 00
Greene, S H	223	1	1 00
Heath, R W	216	34½	34 50
Harrington, W C	2-4	1	1 00
Hans, Solomon	129	5	5 00
Light, C H	187	4¼	4 25
Levy, Isaac	225	2	2 00
Moyerfeld, M	226	2	2 00
Perley, D W	19	20	20 00
Perley, D W	20	20	20 00
Perley, D W	23	10	10 00
Perley, D W	25	5	6 00
Perley, D W	2d	5	5 00
Smith, A N	227	5	5 00
Strauss, Emanuel	103	5	5 00
Strauss, Emanuel	116	5	5 00
Scott, H	217	138	138 00
Wensinger, F S	228	3	3 00
Woodleaf, H	229	1	1 00
Waterman, E R	155	2	2 00
Watriss, Geo E	207	34 13-16	34 82

And in accordance with law, and an order of the Board of Trustees, made on the 2d day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, by Jones & Bendixen, auctioneers, on the 20th day of February, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. feb3

Evoca Consolidated Copper Mining Company.

Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 31st day of January, 1866, an assessment of twenty-five (25) cents per share was levied upon the assessable capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, at No. 537 Washington street, room No. 3, in the City and County of San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

CHARLES E. ABBOT, Secretary.

Office, 537 Washington street, Room 3, San Francisco, Cal. feb3

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 26th day of December, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Berry, Harrison	101	25	$25 00
Coon, M R	110 and 111 25-ea	60	60 00
Coon, M R	114	5	6 00
Coon, M R	178	3	3 00
Clark, J Warren	123	1	1 00
Clark, J Warren	not issued	10	10 00
Clark, Sarah A	122	5	6 00
Clark, Miriam	124	25	25 00
Clark, P A	115	6	6 00
Clark, P A	116 and 117 1-ea	2	2 00
Clark, P A	126	3	3 00
Clark, P A	119 and 121 4-ea	8	8 00
Cornwell, J F	80, 81, 82 10 ea	30	30 00
Denning, Wm	168	10	10 00
Dake, C W	246	12	12 00
Egan, E D	140	2	2 00
Elsworth, Wm	180	6	6 00
Gibson, James	89 and 40 10-ea	20	20 00
Graham, T B	not issued	10	10 00
Keeney, Charles W	132	2	2 00
Kercheval, Sarah A	240	10	10 00
Lee, O N	not issued	9 2-3	10 00
Mecklenberg, Joseph	165	6	6 00
Miller, J E	166	10	10 00
Sloan, H H	28 and 29 10-ea	20	20 00
Savage, Richard	164	10	10 00
Whitton, M S	68	7	7 00
Whitten, C J	183	10	10 00
Sloan, H H	36	6¼	6 00
Knight, Thomas	37	4½	6 00

And in accordance with law, and an order of the Board of Trustees, made on the 26th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the auction rooms of Messrs. Olney & Co., No. 626 Montgomery street, on the 20th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. feb3

Jewett Gold and Silver Mining Company, Gold Hill District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 29th day of January, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 20th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

G. M. BURNHAM, Secretary Pro tem.

Office, 436 Jackson street. feb3

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable on the 2d day of February, 1866, in United States gold and silver coin, to the Secretary, at his office.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. feb3

Leland Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 2d day of February, 1866, in United States gold and silver coin, to the Secretary, at his office.

Any stock upon which said assessment shall remain unpaid on the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary,

Office, 302 Montgomery street, San Francisco, Cal. feb3

Owens River Canal Company, Tulare County, California.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Gilliland, E P	23	5	$2 00
Gilliland, Newell	24	5	2 00
McKinney, Wm	26	10	4 00
Warner, A K	27	25	10 00
Loomis, Riley	28	25	10 00
Preble, Mrs L A	29	5	2 00
Stetson, Wm	36	4	1 60
Webber, L A	37	10	4 00
Hastings, N	39	25	10 00
Hollaback, J C	40	30	12 00
Preble, S W	44	10	4 00
Dows, H J	45	10	4 00
Wright, D J	46	10	4 00
Brown, D J	47	10	4 00
Perrin, Otis	48	25	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Maurice & Co.'s sale-room, 327 Montgomery street, on Monday, the 10th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.

Office, 618 Merchant street, San Francisco. feb3

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on the coast.

Wide West Gold and Silver Mining Company. Location: Silver Mountain District, Alpine County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Mrs S K Arnold	228	5	$15 00
Reuben Best	136	5	15 00
Reuben Best	140	5	15 00
Reuben Best	141	5	15 00
Reuben Best	155	6	18 00
Reuben Best	257	31	93 00
Reuben Best	259	31	93 00
Reuben Best	299	3	9 00
Reuben Best	392	32	96 00
Reuben Best	162	10	30 00
Reuben Best	135	5	15 00
Geo F Brush	120	4	12 00
J S Brown	213	10	30 00
P B Bailey	253	17	51 00
J G Brayton	283	10	30 00
J G Brayton	284	10	30 00
J G Brayton	285	10	30 00
J G Brayton	286	10	30 00
J G Brayton	287	10	30 00
J G Brayton	288	10	30 00
J G Brayton	289	5	15 00
J G Brayton	290	5	15 00
J G Brayton	291	5	15 00
J G Brayton	292	5	15 00
Frank Cahlo	not issued	250	750 00
B Capell	69	10	30 00
B Capell	70	10	30 00
B Capell	71	5	15 00
B Capell	202	10	30 00
B Capell	77	5	15 00
B Capell	80	5	15 00
B Capell	81	10	30 00
B Capell	82	10	30 00
B Capell	78	5	15 00
R Capell	79	5	15 00
P Christianson	114	8	24 00
P Christianson	115	5	15 00
W B Carleton & E W Leach	187	5	15 00
W R Carleton & E W Leach	188	5	15 00
Jas S Capel	231	10	30 00
W J Robbins	25	25	75 00
W J Bobbins	368	25	75 00
M L Burbin	237	10	30 00
Wm Demming	248	10	30 00
Wm Demming	249	10	30 00
John Cawdy	300	5	15 00
S B Edsall	not issued	150	450 00
Wm Edgington	223	10	30 00
Thos Earl	238	15	45 00
Wm H Gibbs	209	10	30 00
B R Johnson	250	10	30 00
B R Johnson	251	10	30 00
John Gillam	246	10	30 00
Wiley F James	241	5	15 00
Wiley F James	242	5	15 00
Wiley F James	243	5	15 00
Wiley F James	244	5	15 00
Wiley F James	245	5	15 00
Charles Kather	300	10	30 00
A B Lake	121	4	12 00
N Lawrence	254	16	48 00
J A McGimsey	not issued	75	225 00
J A McGimsey	305	10	30 00
J A McGimsey	33	5	15 00
J A McGimsey	34	6	18 00
J Meclinberg	113	5	15 00
James Morrison	41	5	15 00
Robt McReynolds	118	10	30 00
Jacob McReynolds	122	2	6 00
Jacob McReynolds	241	5	15 00
Donald McDonald	234	10	30 00
Geo W Manwell	193	5	15 00
A C McDonnell	225	5	15 00
A C McDonnell	226	7	21 00
Chas McIntire	265	10	30 00
Wm McGill	301	10	30 00
J M Pierson	195	10	30 00
Geo F Reeves	230	5	15 00
J W B Reynolds	19	25	75 00
J W B Reynolds	20	25	75 00
J W B Reynolds	184	15	45 00
J W B Reynolds	22	25	75 00
T H Rickman	127	5	15 00
T H Rickman	128	10	30 00
T H Rickman	129	8	24 00
Rickman & Sewell	130	5	15 00
Andrew Stephens	106	20	60 00
Andrew Stephens	107	20	60 00
Andrew Srephens	108	20	80 00
Andrew Stephens	186	20	60 00
Ole Simondson	119	5	15 00
John Stilts	232	20	00 00
Stilwagon & Boynton	256	33	99 00
W W Stilwagon	267	10	30 00
O P Southwell	266	5	15 00
T Vann	270	10	30 00
Jerome Wade	35	5	15 00
Jerome Wade	36	5	15 00
Jerome Wade	37	5	15 00
Jerome Wade	38	5	15 00
B F White	42	12½	37 50
R J Whitton	66	10	30 00
M S Whitton	2	5	15 00
M S Whitton	304	15	45 00
E Whitton	62	20	60 00
Mrs N Whitton	63	10	30 00
W H Whitton	48	20	60 00
W H Whitton	49	5	15 00
W H Whittou	51	5	15 00
S C Wolfskill	179	25	75 00
A G Wood	272	20	60 00
A G Wood	273	20	80 00
A G Wood	274	20	60 00
A G Wood	275	20	60 00
A G Wood	276	20	80 00
A G Wood	277	20	80 00
A G Wood	278	20	60 00

And in accordaoco with low, and oo order of the Board of Trustees, made on the said 4th day of Jaouary, 1866, so many shares of each parcel of said stock as may be necessary, will be sold ot public auction, by Messrs. Olney & Co., ot No. 626 Montgomory street, Son Francisco, Cal., on the 21st day of Febraary, 1866, at tho hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOSEPH GREEN, Secretary.

Offico, 330 Dovis street, San Francisco. feb3

Removal.

The Office of the MINING AND SCIENTIFIC PRESS has been removed to the old printing stand known as Wators Bros. & Co., southwest corner of Clay and Sansome streets, opposito the Niantic Hotel (being one block south of our forme location), where we may now be found, with moro commodious apartments ond an extensive Joa PRINTING OFFICE.

San Froncisco, April 10th, 1865.

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desiro made in their odvertisoments ot their earliest convenienco. New advortisements should bo sent in as early as possible.

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba Couoty, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied oo tho 1st day of January, 1866, the several amounts set opposite tha names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Berges, P	36	1	$ 3 00
Bray, Geo	362	4	12 00
Bristol, A S	324	5	15 00
Broeg, A	301	4	12 06
Coutiron, J B	326	2½	7 50
De Montpreville, C	89	12	30 00
De Montpreville, C	90	13	39 00
Fischer, Wm	375	10	30 00
Fischer, Wm	376	20	60 00
Fischer, Wm	377	5	15 00
Hawley, Wm	287	7	21 00
Hawley, Wm	328	25	75 00
Hawley, S M Mrs	288	3	9 00
Hochstaitter & Bro	244	20	60 06
Hochstaitor & Bro	219	10	30 00
Ruggles, D W	325	5	15 00

And in accordanco with law, nnd au order of the Board of Trustees, made on the 1st day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., ot No. 826 Montgomery stroet, San Froncisco, Cal., on Saturday, the 17th day of February, 1866, at tho hour of 12 o'clock M. of said day, to pay said delinquont assessment thereon, together with costs of advertising and expenses of sale.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up-stairs, San Francisco. fe3

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Consolidated Silver Hill Mining Company.—Location of Works: Esmeralda District, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of Janoury, A. D. 1866, an assessment of two dollars ($2) per sharo was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, Room No. 15 Government House, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturdoy, the 10th doy of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 21st doy of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sole. By order of the Board of Trustees.

jan13 JOHN J. MACKENZIE, Secretary.

Diana Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the followiog described stock, on account of ossessment levied on the 21st day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Allen, H H	236	3	$ 30 00
Allen, H H	271	46½	465 00
Allman, John	304	7	70 00
Allman, John	305	6	60 00
Bradley, H W	289	11	110 00
Bateman, I C	211	4	40 00
Batemoo, I C	208	120	1200 00
Bidleman, E J	308	5	50 00
Bidleman, E J	300	4¾	43 75
Bidleman, E J	312	9	90 00
Bidleman, E J	320	15	150 00
Cutter, H F	14	21	210 00
Cutter, H F	200	5	50 00
Cutter, H F	248	10	100 00
Camp, James	143	10	100 00
Crockett, Geo W H	244	5	50 00
Drinkhouse, J A	318	25	250 00
Dawloy, Jas M & Co	161	5	50 00
Dawley, Jos M & Co	102	5	50 00
Dawley, Jas M & Co	164	10	100 00
Detrick, E	255	3	30 00
Froncis, D B	34	3	30 00
Francis, D B	62	10	100 00
Frazee, C D	224	20	200 00
Greene, S H	7	12	120 00
Greene, S H	269	13½	135 00
Horrington, W C	290	5	50 00
Harrington, W C	291	10	100 00
Harrington, W C	292	10	100 00
Harrington, W C	293	10	100 00
Harrington, W C	294	10	100 00
Harrington, W C	295	10	100 00
Harrington, W C	296	10	100 00
Harrington, W C	297	10	100 00
Harrington, W C	298	10	100 00
Horrington, W C	299	10	100 00
Harrington, W C	300	10	100 00
Harrington, W C	301	10	100 00
Harrington, W C	302	10	100 00
Harrington, W C	303	10	100 00
Hardy, Jas H	278	5	50 00
Hastings, John	214	10	100 00
Hastings, John	242	5	50 00
Hastings, John	246	5	50 00
Light, C H	2	6¼	62 50
Lander, P C	270	14	140 00
Ladd, C J	115	10	100 00
Miller, Albert	319	20	200 00
Neyman, H J	86	10	100 00
Neyman, H J	105	25	250 00
McDaniel, D	61	2	20 00
O'Neil, A E	215	20	200 00
Perley, D W	180	20	200 00
Perley, D W	181	10	100 00
Perley, D W	182	10	100 00
Perley, D W	183	8¾	87 50
Perkins, A B	220	8	80 00
Pridham, Wm	223	5	50 00
Sharp, Geo F	52	4	40 00
Turner, Anna K	35	2	20 00
Warren, O P	251	22	220 00
Williams, J J	142	2	20 00
Welch, G W	208	10	100 00

Aod in accordonce with law and an order of the Board of Trustees, made on tho 21st day of December, 1865, so mony shares of eoch parcel of said stock as may be necessary, will be sold at public auction, at the office of tbo Company, by Jooes & Bendixen, on the 6th day of Febraory, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinqueot ossessmont thereon, together with costs of advertisiog and expenses of sale.

N. C. FASSETT, Secretary.

POSTPONEMENT.—The above sale is postponed until Friday, the 16th day of February, 1866, at the same hour and place. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, Sao Francisco, Cal. jan20

Great Western Tunnel and Mining Company—Location of Works: Aurora, Nevada.

NOTICE.—There are delioquent upon the following described stock, on account of assessment levied oo ths 28th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Charles Rohrle	327	100	$10 00
Charles Rohrle	324	150	15 00
Charles Rohrle	325	150	15 00
Charles Rohrle	326	100	10 00
Charles Rowell	223	25	2 50
Charles Rowell	224	25	2 50
Charles Rowell	258	22	2 20
Charles Rowell	291	100	10 00
Charles Rowell	292	100	10 00
Charles Rowell	293	40	4 00
Charles Rowell	306	48	4 80

And in accordauco with law, and na order of the Board of Trustees, made on the 28th day of December, 1865, so many shares of each porcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 628 Montgomery street, San Francisco, Cal., on Saturday, the 10th day of February, 1866, at the hour of 11 o'clock, A. M. of said doy, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOS. C. FORD, Secretary.

Office, No. 20 Exchange Building. jan27

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of January, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, W. L. GETCHELL.

Any stock upon which said assessment shall remain unpaid on Saturday, the 24th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturdny, the 10th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sole. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. jan27

Hornet Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquoot upon the followiog described stock, on account of assessment levied on the 21st day of December, 1865, the severol amounts set opposite tbe names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Addleberger, C F	8	10	$10 00
Addleberger, C F	9	10	10 00
Addleberger, C F	10	10	10 00
Addleberger, C F	14	5	5 00
Austin, B C	93	5	5 00
Baker, Fred	30	10	10 00
Boker, Fred	32	10	10 00
Baker, Fred	35	5	5 00
Baker, Fred	36	5	5 00
Baker, Fred	37	5	5 00
Casen, J D	76	10	10 00
Casse, J D	77	12½	12 50
Coddington, Geo W	86	20	20 00
Campbell, M	89	5	5 00
Campbell, M	90	5	5 00
Cutter, H F	100	90	96 00
Kerley, J C	38	20	20 00
Kerley, J C	39	20	20 00
Kerley, J C	43	5	5 00
Massey, J M	56	12½	12 50
Massey, J M	57	20	20 00
Parker, Edwin	68	10	10 00
Todd, Jos	2	10	10 00
Todd, Jos	3	10	10 00
Todd, Jos	4	10	10 00
Turoman, C W	78	20	20 00
Turoman, C W	79	10	10 00
Turoman, C W	80	10	10 00
Rumsey, L W	75	10	10 00
Welton, E W	49	10	10 00
Weltoo, E W	50	10	10 00
Welton, E W	51	10	10 00

And in accordonce with law and an order of the Board of Trustees, mode on the 21st day of December, 1865, so many shares of eoch parcel of said stock as may be necessary, will bo sold ot public auction, at the Office of the Company, hy Jones & Beodixen, on the 6th day of Febru, ary, 1866, ot tbe hour of 1 o'clock P. M. of said doy, to pay said delinquoot assessment thereon, together with costs of advertising aod expenses of sale.

N. C. FASSETT, Secretary,

Office, 402 Front street, San Fraoclsco, Cal. jon20

MINING LAWS AND FORMS.

Third Edition revisod and enlorged.

Compiled by H. B. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete; Digest of Decisions of the Supreme Court; forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

Published by H. H. BANCROFT & CO.

VOLUME TWELFTH.—The MINING AND SCIENTIFIC PRESS, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait hos been rapid toward a perfect journal. Its appearanco evidences its prosperity, but doubtless, like some of the rest of us, it con stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

Economy in Advertising.—The MINING AND SCIENTIFIC PRESS is the best and most ECONOMICAL mining advertising medium in this city. Our terms are less than ONE HALF the rates now charged by dally newspapers, ond the mining community are beginning to appreciate our reasonable rates of advertising. The PRESS contains, proportionally, a larger amount of mining advertising thon any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

POSTPONEMENTS.—We would again call the attention of Secretaries to a certain point of the mining law, too commonly overlooked, viz: The requirement that all postponements must be added previous to the expiration of the regular publication of assessment or sale notices.

Kentucky Copper Mining Company—Location: Mino. Felix District, north of Copperopolis, Calaveras County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment No. 7, levied on the 20th day of December, 1865, the several amounts set opposite the nomes of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Darye, R	47	10	$10 06
Gallagher, Th	188	75	75 00
Lachmann, S	235	25	25 00
Lachmann, S	247	25	25 00
McCarter & Oxtoby	116	25	25 06
Schuhmacher, R	271	10	10 00
Stehle, E	207	10	10 06

Aod in accordooce with law, and on order of the Board of Trustees, made on the 20th day of December, 1865, so mouy shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Cobb & Shiloo, at No. 408 Montgomery street, San Francisco, Cal., on Wednesday, the 7th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. A. BADER, Secretary.

Office, 644 Washington street, San Francisco, Cal. jan20

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 8th day of January, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 9th day of January, 1866, in United States gold and silver coin, to the Secretary, or to the Superintendent at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 3d day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretory.

Office, corner Broadwoy and Sansome streets, San Francisco. jan20

Salamander Gold and Silver Mining Company, Mill Valley District, Calaveras County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessmeot levied on the 28th day of December, 1865, the several amounts set opposite the oames of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amouot.
Lawrence Ackli,	180 to 192	105 5-19	$21 00
H G Bartholemew	102	50	14 00
Mrs C Bartholemew	104 to 109	20	4 00
John Brunonan	200	105 5-19	21 00
John Callahan	199	80 5-19	16 00
Jas Carty	280	100 5-19	20 00
J Dwyer	296	105 5-19	21 00
Ed Dougherty	98	25	5 00
Jas Dowd	250	5	1 00
Thos Donohue	96 to 101	50	10 00
M C Forley	235	10	2 00
Mrs Margarett Gibbons	287	20	4 00
Jas Hamilton	1, 3, 5, 7, 8	65 5-19	13 00
X Huber	294	105	21 00
A E Hill	269	10	2 00
Wm Jackson	44 to 68 and 138 to 256	860 2-19	112 00
John Kahars	200 to 202	25	5 00
Wm Kretchman	295	105 5-19	21 00
B Kenney	151	10	2 00
John Lonth	279	95 5-19	19 00
Jas Liddy	238	25	5 00
Jas Morgan	30, 31, 34, 35, 37 39, 40, 41, 42, 43	70 5-19	14 00
D McColgan	292	50	10 00
T F Maguire	286	30 5-19	6 00
Ed Powroy	225 to 234	200 10-19	40 00
John Perry	271	25	5 00
John J Redmond	283	105 5-19	21 00
E L Roesing	293	105 5-19	21 00
John Ryan	214	25	5 00
R F Ryan	193 to 219	45	9 00
G W Smith	291	100 10-19	20 00
A Schramm	217	105 5-19	21 00
A P Warren	243 to 288	115	23 00

And in accordance with law, and an order of the Board of Trustees, made on the 28th day of December, 1865, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at J. R. Stewort & Co.'s, No. 417 Battery street, on the 10th day of February, 1866, at tho hour of 11 o'clock A. M., of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

F. D. GALLAGHER, Secretary.

Office, No. 35 Metropolitan Block, Sao Francisco, Cal. jan27

Yosemite Silver Mining Company, Oro Fino District, Humboldt County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessmoot levied on the 21st day of December, 1865, the several amouots set opposite the nomes of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amouot.
Robinson, Geo	134	60	$75 00
Hutchins, Fred	136	20	25 00

And in accordance with law, and on order of the Boord of Trustees, made on the 21st day of December, 1865, so mooy shares of each parcel of said stock as may be necessary, will be sold at public auction, by Jones & Bendixen, ot 402 Front street, on the 6th day of February, 1866, at the hour of 1½ o'clock P. M. of said day, to pay said delinquent assessment thereoo, together with costs of advertising ond expenses of sale.

S. O. PUTNAM, Secretary.

Office, 402 Front street, San Francisco. jon20

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discropancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. THE MINING AND SCIENTIFIC PRESS PATENT AGENCY has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

SUBSCRIBE FOR IT.—The large, illustrated sixty-four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every minor, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

THE FUTURE OF SALT LAKE.—The Atchison *Press* says: "In a letter from Salt Lake City the writer predicts that when polygamy becomes extinct, the mines developed, and the great railroad built, it will be the chief commercial city of the mountains, equal to St. Louis or Chicago, and one of the most beautiful and attractive cities on the continent."

THE LAST OF THE HEROES.—There are but two of the Revolutionary soldiers living; of these one lives in Maine the other in New York. On the decease of these, which must take place at an early day, it is proposed that some action be taken by the Government duly commemorating the event.

THE Sierra *Advocate* says that Mr. Dorrell of Downieville, has a rattlesnake which he has kept in a bottle for the last thirteen years, without food. It has grown finely all the time.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Oakland Water-Cure.

APRIL 1ST, 1864, WE OPENED A HYGIENIC BOARDING House and Ladies' Health Institute in Oakland. The great advantage we have experienced since that time, in the treatment and cure of all those diseases peculiar to females, as well as those common to all, over that of San Francisco, induced us to give up the treatment of gentlemen in the city. We have accordingly removed our entire Bathing, Electro-magnetic, and Gymnastic Apparatus, which we used especially in the treatment of males, to our Health Institute across the Bay, and have found, after a trial of seven months, that gentlemen as well as lady patients recover, at our Fountain Farm Cure, one-third faster than in the city of San Francisco. The climate here is the most even and bracing to be found in the State. The grounds command a view unsurpassed in the world. The Institution is furnished with an abundance of pure, soft water, from numerous springs; and we now offer to Ministers, Teachers, Lawyers, Miners, Merchants, Mechanics, Farmers, and all other worthy persons, who desire to try the advantage of the only *rational* system of medicine, the hospitalities of our Hygienic Home and Cure. Young men who have become debilitated or lost their health by excessive toil, exposure, or enervating habits, contracted through ignorance of Physical Laws, may with us find more of the encouragements they need, and means that will restore them to health, than elsewhere in California.

We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that it is followed by none of those debilating diseases, such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Urethal Strictures, etc., which we well know result from the free use of mercury and other metallic drugs, together with stimulants and vegetable poisons given to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in its facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any like establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douch Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to miners, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Mercurial, Lead, and Oak Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have yet used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, retorting metals, the malaria of rivers and low marshy grounds. Where there was a fair constitution left, even when drugs had been applied for months and years without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflammatory and Mercurial Rheumatism; Paralysis; Lung, Bronchial and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Erysipelas, Scrofula, Piles, Inflammation of the Bowels, Chronic and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is more favorably situated to furnish so many home comforts and hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only truly healthful boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the medication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in the bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institutions, (both in Sacramento and San Francisco) has induced us to make this class of human afflictions a specialty of our Institution. We have treated (mostly in the cure), over 300 females, several of whom had been "bedridden" for months and years, and all have been decidedly benefited, and with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

There is not one female invalid in twenty that has been suffering from nervous debility or diseases peculiar to her sex, that cannot be permanently cured by spending from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn of a single regret from husband or wife of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has labored successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo-Therapeutic College.

To all whom it may concern:

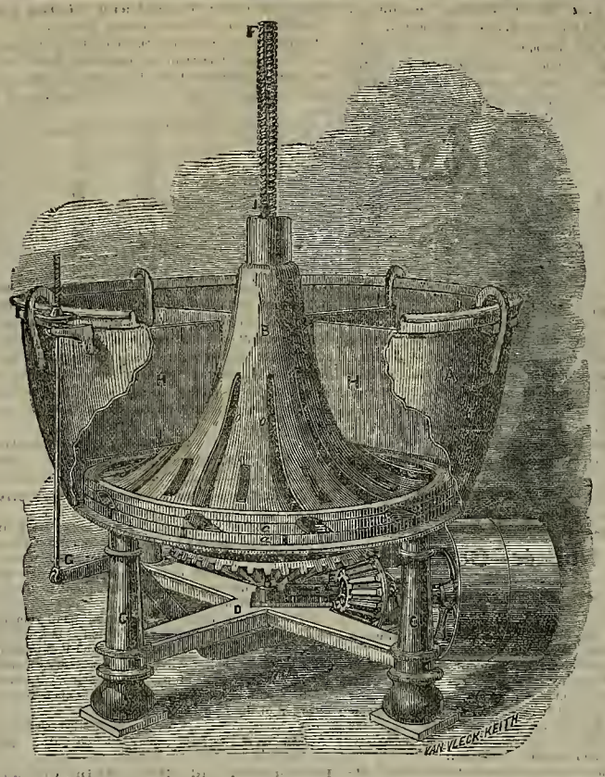
I have known Dr Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as honest, faithful delineator of character, and as such can cheerfully recommend him to the public.

For the good of Science.

L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

BARLOW J. SMITH, M. D.,
20v11tf San Francisco, Box 473.



THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been furnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,
WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.
SAN FRANCISCO, June 13, 1865.

LICK HOUSE,
Corner of Montgomery and Sutter streets,
SAN FRANCISCO.
S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests. 15v11

CLOTHING MADE FROM CALIFORNIA CLOTH,
For Wholesale and Retail Trade,
ALSO, CLOTHING MADE TO ORDER,
AT QUINCY HALL,
Nos. 545, 547 and 549 Washington Street,
SAN FRANCISCO, CAL. 19v11-3m

VALUABLE
PATENT RIGHT FOR SALE.

The patent right for the United States of a valuable invention can be secured at a bargain by applying at this office. The article is one of general application throughout civilization.

DEWEY & CO., Publishers.

RUGGLES' PRINTING PRESS
For Sale or Exchange.

The Proprietors of the MINING AND SCIENTIFIC PRESS have on hand a Half-Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,
Office, 505 Clay street.

THE STYLE
—FOR—
Fall and Winter, 1865,
Will be introduced Aug. 26, at
MEUSSDORFFER'S
HAT MANUFACTORIES,
Nos. 635 & 637 Commercial st., San Francisco,
No. 125 J st., bet. Fourth & Fifth, Sacramento.
Corner D and Second Streets, Marysville. 12v11

NEW YORK PRICES.
WATCH REPAIRING AT NEW YORK PRICES.
C. E. COLLINS,
No. 602 Montgomery street, San Francisco.
EXCLUSIVE AGENT
—FOR THE—
AMERICAN
WATCH FACTORY.
A large assortment of these
Superior Watches,
In Gold and Silver Cases,
Constantly on hand, and sold at Factory prices. Also,
ENGLISH AND SWISS WATCHES,
Imported directly from the Manufacturers.
The American Company are now making
VERY FINE WATCHES FOR LADIES.
☞ A large assortment of Gold Chains and Jewelry. 25v10-6m
WATCH REPAIRING AT NEW YORK PRICES.
NEW YORK PRICES.

BUY
The Monthly Series
—OF THE—
MINING AND SCIENTIFIC PRESS.
Send it to Your Friends.
Issued at the close of EACH Month.
PRICE.....50 CENTS.

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for BOOK AND PAMPHLET PRINTING entrusted to the Mining and Scientific Press Job Office.

JOHN TAYLOR & CO.,
—IMPORTERS AND DEALERS OF—
ASSAYERS' MATERIALS,
Druggists' & Chemists' Glassware,
Photographic Stock, Etc.
512 and 514 Washington Street,
SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco, March 6, 1865. 11v10-tf

CHARLES BERNARD,
MANUFACTURER AND DEALER IN
Family Chartres Coffee,
AND SPICES OF ALL KINDS,
No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.

First Premium Awarded
BY THE MECHANICS' INSTITUTE,
FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to. 15v11-3m

OIL WELL BORING.
J. SEVENOAKS,
Contractor
For Well Boring and Erecting all kinds of Machinery connected therewith.

Having had extensive experience in boring for oil in Pennsylvania, Canada and elsewhere, I feel confident of being able to give entire satisfaction. Persons desirous of making contracts as above, or wishing information with regard to oil indications, etc., will please address me at the office of the "Mining and Scientific Press," San Francisco, or to my personal address, Box 1229 San Francisco. 2v11

MINING PROPERTIES.

PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble. 1v12

ENGRAVED TO ORDER.—PERSONS who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st.

WHAT IS A STATE?—Kent, the great American commentator on law, says that "In public law, a State is a complete or self-sufficient body of persons, united together in one community for defense of their rights, and to do right to foreigners." Our Federal Union is such a State as this.

BIERSTADT, the artist, has made $120,000 with his brush in three years. He is now building a princely mansion at Irvington, on the Hudson, and drives the most stylish team in the Central Park.

GEN. BUTLER'S celebrated tower near Bermuda Hundreds, from which, for so many months, lynx-eyed sentinels pried into the movements of the rebel troops, was the other day sold at public auction for the sum of five dollars. There were at least thirty cords of good timber in the structure.

A FEW days ago a grizzly bear was killed in the foot-hills above Stockton. He weighed five hundred pounds, and the Stocktonians proceeded immediately to eat him.

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, Mr. TURNER HAMILTON, at the Assembly Building, 106 South Tenth street, Philadelphia, Pa., where samp copies of our publications can always be found.

BY MAIL.—The MINING AND SCIENTIFIC PRESS will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1854, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

SEND US WORD.—If any subscriber to this journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLATURE of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS.

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire	$12,973,949
Marine	484,408

This Company commenced underwriting Marine Risks, August, 1865.

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19, 1866.

William Alvord,	S. M. Wilsen,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm. Hooner,	Lloyd Tevis,
Anson G. Sides,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer.	L. B. Benchley,	Alfred Berel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis.
John Wightman,	Oliver Eldridge,	P. L. Weavor,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.

4v12-3m

MINERS

Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.

Gold, Silver and Copper Ores bought in any quantity.

Assay of Ores made by a new Fire Process in half the usual time, and at half price.

Apply to J. MOSHEIMER,
23v11qy 423 Washington street, San Francisco.

FOR SALE!
A STEAM ENGINE!

10-INCH CYLINDER, FOUR-FOOT STROKE, IN PERFECT Order. Can be seen running at the San Francisco Pioneer Woolen Factory, Black Point. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

Machinery.

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates: no trace of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

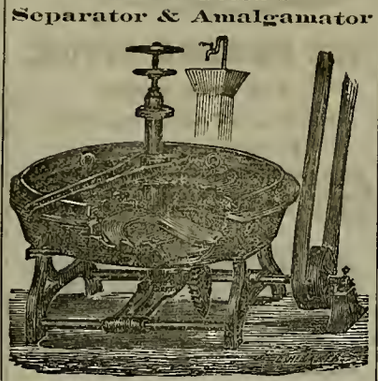
5th. There is no clogging or stopping to clean out the sulphurets and sand: consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separater and Amalgamator among all the competiters. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separaters, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of
Quartz or Ores
To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
AND
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address, BLAKE & TYLER,
Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separater for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

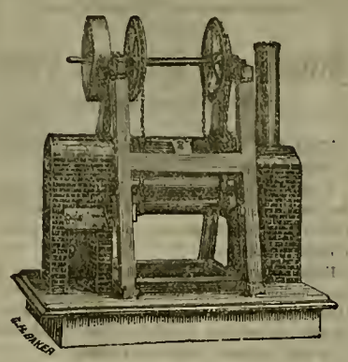
These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. Illustrated in the Mining and Scientific Press, April 9th, 864.] HEPBURN & PETERSON.
nov8 3m*

McCOMB'S
CUMULATIVE POWER PRESS
AND
ARROW TIE.

E. C McCOMB, Agent.
No. 1 Government House, cor. Sansome and Washington sts.
23v10 3m

The Mechanics' Institute
AWARDED A
PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
12v11 416 Market street, San Francisco.

HUNT'S
IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person; and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN
HORSE POWER
For Sawing Wood.

ALSO, THE

Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.

☞ For further Particulars see small circulars. ☜

E. O. HUNT,
No. 28 Second Street, and 108 & 112 Jessie Street, San Francisco. 26-3m

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mill's.

For sale by TREADWELL & CO.,
3v12-3m Corner of Front and Market streets.

Stevens' Pressure Packing.

Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which new have this packing in use—some of which have been running from three to twelve months without being opened, or shewing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df ANDREW STEVENS.

SALMON'S
PROPELLOR AMALGAMATOR
—AND—
Challenge Settler

Has been in use and thoroughly tested, both in California and Nevada, with entire satisfaction to all parties concerned. These Machines are

Made entirely different from any others,

And with the same power will grind, amalgamate, settle and separate, more gold and silver ore than any others now in use. Manufactured at the SAN FRANCISCO FOUNDRY, where Machines can be seen in operation. Address

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D. C. MITCHELL, Prop'r.
San Francisco, Aug. 22d, 1865. 10v11-3m

[Prospectus.]

VOLUME TWELFTH.

With our issue of January, 6th, 1866, we commenced the twelfth semi-annual volume of the MINING AND SCIENTIFIC PRESS. We have abundant evidence that no class journal has ever been established which, in so short a time, has become so highly appreciated by those for whom its publication has been especially designed, or by the thinking and intelligent portion of the community generally. We may be pardoned for referring, with some degree of pride, to what the present proprietors have done, in the short space of two years, in building up this paper; and we confidently point to the past as an earnest of what our future shall be.

We shall continue, as heretofore, to spare no labor or expense to keep up and add to the well-earned reputation which the paper now enjoys, and shall exert our utmost endeavor and means to render it still more useful and acceptable to the miner, the mechanic, and the general reader. We make no apology and feel no delicacy in asking and urging upon the friends of the paper, everywhere, to aid us in extending its circulation, or in calling upon them to assist us in filling our columns with facts and information which shall be of value to our readers in the several departments of practical knowledge to which the paper is devoted. We return sincere thanks for past favors, and earnestly solicit a continuance of similar ones in future.

The rapid strides which are now being made in scientific mining on this coast, and the constant modification of old processes, which experience teaches us is a necessity for their economical adaptation to the anomalous condition of the mines and mining interests here, to say nothing of the new discoveries and improvements which the ingenuity and experience of man is constantly seeking to apply to mining operations, renders the existence of a journal, exclusively devoted to such specialities, an indispensable requisite to every miner and millman who desires to keep himself posted in the progress of the chemistry, metallurgy, and mechanics of mining. The wonderful discoveries and marvelous deeds which are now almost daily being achieved in the domain of science and art, render serial scientific and class publications the mainstay and dependence of every person who would keep up with the times. The achievements of the past few years in this direction are absolutely astounding; and who knows—who can imagine what a year may accomplish? Books are useful only as a record of the past—the living, active present can be found only in the pages of the newspaper and magazine.

With these facts and suggestions before us, may we not look with confidence to the active assistance of our friends? It will readily be acknowledged that the greater the income, the greater will be our facilities for collecting and disseminating information which shall be useful to our readers. We have no especial desire to make the MINING AND SCIENTIFIC PRESS a money-making institution; but we *do* own up to a desire to establish a really reputable and creditable journal in San Francisco, devoted to the mining interests of the Pacific coast, which shall be a living, lasting monument to our labors, a credit to California, and a valuable medium for the dissemination of useful information. To accomplish this, we are willing to work and to wait—we are willing to put into the enterprise every dollar, over and above actual expenses, which the liberality of friends may place at our disposal.

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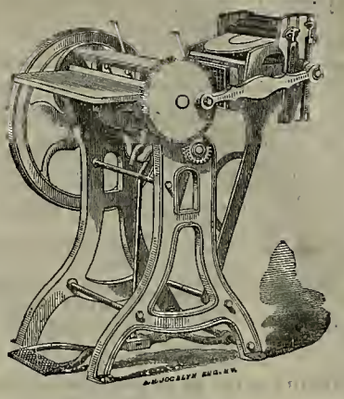

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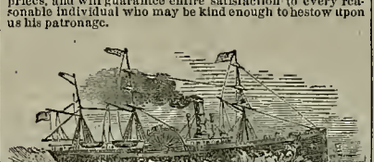

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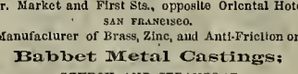

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EXCELSIOR MINES.

THE CROSBY & THOMPSON DESULPHURIZING PROCESS.

Accounts of an extremely favorable nature continue to reach us from the mines of Summit City and vicinity (formerly known as Meadow Lake). A gentleman has furnished us, the past week, with the following facts, with regard to the Enterprise mine and mill. The ledge was located in July last, in Excelsior district, about three miles from the Dutch Flat road, and six miles from Summit City. The Enterprise mill, built by Goss & Lombard, of Sacramento, is expected to go into operation about the middle of February. The Crosby & Thompson desulphurizing process, which has been introduced with such success at the Pike's Peak mines, will be employed in connection with this mill. The works for the same are being put up under the superintendence of Mr. King. We shall watch the results of this new process with much interest; and shall embrace the earliest opportunity to lay the same before our readers.

Mr. James Battershy, Secretary of the Enterprise company, has shown us several very fine samples of ore from this mine. One of these specimens, heavy with sulphurets, and said to contain nickel and eobalt, with no gold visible, assays $800 per ton in gold, and very little silver. Another is thickly interspersed with free gold. These samples were taken from the first shaft, and from a depth of twenty-four feet. The ledge is uncovered on the surface, showing thirty-four feet of vein rock, while the walls are found indicating that the ledge is seventy-five feet in width. At a depth of twenty-five feet a drift has been commenced across the vein, which has been driven forty-five feet, revealing the same character of rock as that found near the surface.

A second shaft has been sunk to a depth of forty feet, from which Mr. B. showed us a specimen profusely covered with free gold. Ten tons crushed at Virginia City, in August last, returned $150 per ton in gold; five tons since crushed in Nevada City gave $250 to the ton. Five and a half tons were crushed at Howland's mill in this city, last October, which assayed $411.50, and upon which an advance of $245 was made for shipment to Europe. The ore worked at Nevada City produced some three tons of sulphuret tailings, which are found to contain by assay $80 per ton.

Enterprise City has a fine location, with plenty of wood and water, and it is in the direct line of travel between Summit City and Pauly's Station. Some 300 locations have already been made in this vicinity. The Pacific Railroad will soon be completed to a point opposite the city, and a railroad station will be located within five miles of the place.

Memorial of the Miners of California.

To the President and Congress of the United States, the Secretary of the Interior and the Commissioner of the Land Office:

On the 17th day of January, 1866, a general Convention of miners of California was held at the city of Sacramento. After full consideration the following resolutions were passed with great unanimity:

WHEREAS, Since the discovery of gold mines in California, it has been the policy of the General Government to allow all those who desired to mine for the precious metals in this State a free and unrestricted right to search for and discover the same, and when found, to hold and develop their several claims, subject only to such restrictions and rules as might be adopted by Conventions held by those who were engaged in actual mining enterprises in the several mining districts of the State; and, whereas, we believe that by the adoption of that policy the mining interests of the State have been developed more thoroughly and to a much greater extent than they would have been under any other policy that could have been adopted; and whereas, legislation for the survey and sale of mineral lands is threatened in the Congress of the United States, and it is seriously proposed to destroy the property interests which have been created in this State, under the license of the General Government, for seventeen years past, and to revolutionize the whole system of mining business and tenures under which the mines have been so far developed, the State has prospered, the Government has been supplied with the sinews of war, trade with advantageous markets, and the revenue a valuable and increasing resource; therefore, be it

RESOLVED, by the miners of California, in General Convention assembled, That we are opposed to any survey, lease or sale of the mineral lands of this State, as injurious to the best interests of the General Government, and of this State, and utterly ruinous to the mining communities.

RESOLVED, That any increase of the tax upon the proceeds of the mines would be onerous and injurious to the mining interests of this coast.

RESOLVED, That the bill introduced into the Senate of the United States by Hon. John Sherman, of Ohio, is singularly calculated to work the utmost confusion and loss to the present holders of mining property, who have invested their labor and capital in developing the mines; to destroy the vast canal interests of the State, the existence of which is necessary to the prosecution of mining, and to expel the great bulk of the population of the mining districts from their homes, their business and possessions.

RESOLVED, That the miners of California respectfully petition the Congress of the United States to respect the rights and property interests which the policy of the Government, long continued, has created and fostered.

RESOLVED, That we indorse the action of the Legislature of this State requesting the delay in the issuance of patents to the Central Pacific Railroad Company, or any other railroad company, until the Government has employed effective measures to segregate the mineral from the agricultural lands lying within the lines of the grant to the railroad company, and, while willing and anxious to aid and encourage in the construction of said road—the great national highway—we most emphatically protest against the cession of a vast section of mineral and timber lands for that purpose, involving the sacrifice and destruction of private rights already vested.

RESOLVED, That a Committee of five be appointed by the President of this Convention, the said President to act as Chairman thereof, to prepare a memorial to Congress embodying the sentiment contained in these resolutions, and to cause the same to be presented, through our delegation in Congress, to the President of the United States, the Secretary of the Interior, and Commissioner of the General Land Office.

In accordance with the sixth resolution, the undereigned Committee present more in detail than is proper in the form of resolutions, the reasons which influenced the action of the Convention:

EFFECTS OF THE DISCOVERY OF GOLD IN CALIFORNIA.

The first important discovery of gold in the territory now embraced within the State of California was made in February, 1848. Immediately thereafter an unparalleled emigration by sea and land commenced and continued until the territory became numerously populated. A State Government was speedily organized. The principal lure to these shores was the gold found in the beds of the streams and deep in the hills in the track of old water courses. After a few years quartz veins, productive of gold, were discovered, and the important interest known as quartz mining grew up. Within the mineral regions thriving cities were founded, and many villages; while the agricultural portions of the State found markets for their products, commercial interests grew to great importance, and San Francisco, the principal port of the State, became great and opulent. By the laws of trade, the States on the Atlantic side of the continent soon felt the impulse which a large and varied market suddenly opened to their manufactures, and the whole nation shared in the harvest which was first reaped by the adventurous population which created this State.

POLICY OF THE GOVERNMENT.

The Government, the owner of the mines, for eighteen years acquiesced in the occupation and development of the mines, by allowing hundreds of millions of dollars in labor and capital of its citizens to be expended in opening the mines and introducing costly machinery. But it went further, and by the character of its legislation seemed to license this order of things. In view of the fact that the miners were occupying the mineral lands, it exempted these lands from survey and sale; it collected a yearly license for mining on them; it levied a royalty on the gross proceeds of the mines; it also taxed their net proceeds as income; and at a very recent period made the customs, rules, and regulations of matters by which they determine the location and possession of claims, which had long been recognized in the State Courts, the rule of decision in the United States Courts, by enacting that each case should be adjudged by the rule of possession. Under this policy of the Government the miner has never considered himself a trespasser on the public domain, and has never been treated as such; but while gratefully appreciating the generosity of the Government, has availed himself of it to acquire possessory rights to limited quantities of mining land, called claims, erected his home near at hand, toiled for years to reap wealth therefrom, and contributed by his labors, very often unproductive to himself, to swell the current of gold that has flowed in the channels of trade. The possessory rights which the miners have thus acquired under this express and implied license of the General Government have been protected by the State Courts, and are as distinctly defined as a homestead right or any other. These rights soon acquired a varying moneyed value, and hence miners sometimes sell their claims where they cannot afford the expensive means for working them; and thousands of claims are held by different individuals by purchase as well as by location. Very frequently before a vein of quartz or gravel deposit lying within rocky hills can be reached, long and expensive tunnels have to be dug out, or blasted out with powder. These costly improvements give value to the claims which in their original condition they did not possess. Many of such improvements are now in progress, and it will be years before they will be completed so as to reach the deposits, and their owners incur heavy debts to complete them. Most quartz mines and many gravel deposits lie below the water level, and are only worked by powerful pumping machinery which has been placed upon them; and the gold is extracted from the quartz by ponderous machinery and curious processes, which are only set at work at great expense. These facts are stated, and many more of a kindred nature might be, to show the great interests which have been created here by the policy of the Government, and the injustice and disasters which must follow a rude change in a system that has been consolidating during nearly two-thirds of a generation.

AN ESTOPPEL.

By that system the miners have been treated practically as the owners of their claims; they have been induced to expend their labor and money to improve them and bring them where possible to productiveness; their customs regulating the tenures have been recognized by legislation, and innocent purchasers have been induced to make investments; all business interests have become interwoven into the existing order of things, and nothing but imperative necessity overruling all considerations of public faith and local welfare, if such necessity can ever exist, can be urged to justify the seizure of these lands from their present possessors. Between private parties the facts would work estoppel in the judgment of any respectable Court, from the extreme injustice of attempting to resume rights so long dormant, which had been waived by explicit acts and words, and where the parties to suffer could not be recompensed. Hence, we respectfully urge that the faith of the Government is pledged, by its course of dealing for so many years, to continue the system its policy has inaugurated and brought to such magnitude and perfection.

IMPOLICY OF CHANGE.

The prosperity of the general mining interest and the reflex advantages to trade and to the revenue already accruing, show the impolicy of change. A system that builds up great States in almost desert regions; that opens new and increasing markets; that supplies the precious metals to fortify the credit of the Government, and strengthen its arm in war; that has vindicated itself by its great success in producing for the use of the country the long-neglected treasures of these distant regions, and which gives employment to so much enterprise and capital, cannot be broken up without confusion and distress to every interest involved. The disasters that will follow to trade and commerce by the temporary or permanent diminution of the supply of gold and silver should be fairly understood, and we shall discuss these considerations hereafter. These disasters will fall largely upon the East, and will be the penalty it will suffer for innovating legislation ruinous to our great local interest. That the present system is well adapted to the productiveness of the mines is beyond doubt; and that productiveness will be increased by a sense of security in the intentions of the Government. But some few of the effects on the miners of a survey and sale of the mineral lands by any system which does not give the present possessors the fee to their claims without price, we propose to advert to, and then to remark upon some evils necessarily incident to any system for the general sale of the mineral lands.

MOST MINERS CANNOT AFFORD TO BUY.

Strange as it may seem to those who judge of the results of mining by the published shipments of treasure, the great mass of miners are too poor to purchase their claims at any price likely to be considered an equivalent. A fact that is apparent here may be hard to demonstrate to the people of the East, whose ears have been abused by the extravagant representations of superficial observers who have visited this coast. The days when surface diggings repaid slight labor with large reward have passed, and miners now have to contend with stubborn ores dragged from great depths to the surface, or glean the fields already reaped. In the former case the expense of production is so great that moderate returns only are expected, and these are often expected in vain. In the latter the gains are usually slight. A dry winter consumes the profit of a favorable one for the placer miner; and the experience of many years in this State shows that the unfavorable seasons for this large branch of mining outnumber the good ones. A vast amount of labor is expended in "prospecting," or digging for new mines, which never yields any return. It is estimated by competent authority that all the gold ever extracted in this State, after deducting the cost of machinery, would not pay for the labor that has been spent in prospecting and mining since the settlement of the State at the rate that ordinary labor during the same time has commanded in the East. This is because paying deposits of gold are so often hard to find, and so difficult to work; and for this reason thousands have lived in poverty, returned to the other States, or given up the business of mining for other occupations. Again, taxation is necessarily high in a new State like this, where difficult roads are to be built, all public buildings, hospitals, churches and schoolhouses erected; and nothing is inherited from the past. The expense of living is great. Much capital has been sent here, but our gold flows continually out of the State to buy the

productions of the East. Great amounts in the aggregate are expended to remove families from the other States to a new home here, and houses have to be built, vineyards and orchards planted, and the country made inhabitable. All these causes and others tend to reduce the available means of the miners, among which causes may be named the thoughtlessness and improvidence perhaps not wholly incident to a new country or to mining pursuits. From whatever cause, the fact remains. And if the Government sells the mines to those who can buy, the miners will be able to compete in a very limited degree, and therefore will be expelled from their claims.

RESULTS IF MINERS CANNOT BUY.

If the Government sells to all who will buy, and as much as they will buy—and no other system of sale seems practicable where so much is to be sold—another consequence will follow, that large tracts of mineral land will pass into the hands of speculators, to lie unimproved and unproductive. When that occurs our towns in the mines will become depopulated, for the activity of the mining business is all that keeps them in healthful existence. By a sale of the mineral lands our homes and all improvements are sold out from under our feet, for these are built on mineral lands, and we shall be persecuted with writs of ejectment and driven out. No fanciful picture is drawn here; but a consequence is pointed out which miners see clearly in the future if the Government sells the mineral lands. By its legislation the Government has reserved these lands from survey, from pre-emption, from private entry, or entry for homestead purposes, and we cannot cite any statute to protect even the birthplaces of our children from the purchaser. We can appeal to nothing but the good faith and magnanimity of the Government, now, before the threatened legislation is had, to secure us from these consequences. Nothing need be added to enforce the consideration that if the miners cannot afford to purchase their claims they lose their mining improvements on which they have expended the labor and profits of years. Many formidable evils would be avoided, if the Government wished to divest itself of the fee of the mineral lands, if it would donate to the present possessors of mines the claims which they hold under mining customs, without regard to the size or shape of said claims. Perhaps it is not too much to expect that this will be the first step of the Government if it disposes of these lands, in view of the considerations already urged.

OBJECTIONS TO ANY SYSTEM OF SALE.

But there are objections to any system of survey and sale of the mineral lands. Such sale would lock up these lands from general prospecting—the means by which new mines are now found, and new sections of the country developed. That feature of the present system which has given it so much efficiency, and extended discoveries, would be destroyed; for no man could prospect on the land of another, and no one would seek a mine which he had not the ability to buy. Prospecting is usually done by adventurous men, without paying mines or much financial means, who are useful as pioneers, and whose occupation would be gone if the mineral lands were sold.

DESTROY CANALS AND HIGHWAYS.

Another serious objection to any system by which the fee to the mineral lands shall pass into the hands of private proprietors, is found in the fact that for many years past there has been growing up in this State a great canal or ditch interest, which would be destroyed. These ditches take water from the mountain streams, and convey it to distant points for mining and other purposes. They are dug and flumed along rugged hillsides, at vast expense, stretching from town to town, and are indispensable to the prosecution of mining. Their aggregate cost and value is counted by millions, and some of them cost, singly, from a half to a million of dollars. By means of the water bought of the companies owning these ditches the miners are able to work their claims. The General Government has been collecting a per centum on the gross proceeds of the sales of water from these ditches for several years past, and is bound in honor to protect their rights of way. If the mineral lands traversed by these ditches—and they net the whole mining region—pass into the hands of private parties, those who acquire the fee can treat the ditch owners as trespassers, and their improvements as a nuisance. The owner of a few rods square of land over which such a ditch passes, can compel the owners of the ditch to turn out their water, and thereby destroy the whole value of the property, and stop all placer mining operations for miles around, or to pay blood money without mercy for the privilege of crossing the strip of land. What may be done in one instance may be multiplied, until property rights and values of immense importance are annihilated, and placer mining becomes impossible. This danger is guarded against under our present system by certain distinctions made by our Courts, which would be inapplicable if the lands were in the hands of private proprietors, and by the fact that the important ditches generally have a priority of location which can only be affected by the Government title. What is said of ditches, so far as the danger to the right of way is concerned, is true of all public highways, toll roads, etc. These would be all broken up until State law authorized some system of condemnation of private property in their favor, which would not be possible upon legal principles in behalf of private ditch companies, and which would at best involve the counties and road companies in heavy outlays to re-establish their roads.

These are momentous considerations; and we especially direct notice to the danger of giving power to any of a thousand men who may buy land crossed by a great canal extending for miles, to destroy its owners and its usefulness to the public by breaking up the extensive mining enterprises dependent upon it. Any legislation like that we have referred to would leave these great interests defenseless, and seriously damage every mining county in this State. That such legislation would diminish the production of gold and create commercial distress, need not be reiterated.

MINERAL REGIONS UNADAPTED TO AGRICULTURE.

There is no presumption that the lands in the mineral regions which are not known to be valuable for mining, are good for agriculture, while the fact is otherwise. The soil is rocky and shallow, generally clayey, frosts are late, and though small orchards or a few vegetables may be raised by a system of irrigation too expensive for ordinary farming, yet there is nothing in the agricultural necessities of the country making it necessary or proper to subject any of the lands of the mineral regions to the operation of the general rules and the policy of the Government pertaining to agricultural lands. But in the most forbidding spots, beneath the deepest deposits of loam, as well as in the most craggy hills, energetic prospectors continually find gold deposits, and this especially since quartz mining has grown into importance, and ledges are traced for miles through lands where they lie deeply buried. Hence, there is no proper assumption that agriculture is impeded or agricultural lands locked up by the present system. No sensible agriculturist would venture to pursue his calling in such forbidding localities, did not the mines afford him a market remunerative of the cost of extracting produce from such stubborn soil. The miner does not occupy and waste lands which could be profitably occupied by any one else; and the attempt by the Government to select out and sell agricultural lands in the mines would benefit no one, while it would injuriously restrict mining enterprise.

MR. SHERMAN'S BILL.

We have before us a copy of a bill introduced into the Senate of the United States by Hon. John Sherman of Ohio, which is liable to all the objections that we have urged to any sale of the mineral lands, and has some features of its own calculated to make such sale peculiarly oppressive.

ITS MINIMUM PRICE.

The first feature of the bill that attracts notice is the exorbitant minimum price fixed for the lands—fifty dollars per acre! The hope of lost angels for heaven would be as reasonable as the expectation that the great proportion of the miners would continue to hold their claims and pay such a price for them. No argument is offered on this point. The bill contemplates an impossibility. A limited number of claims may be sold, especially those which are made tempting to capitalists by expensive improvements or exceptional richness; but mining claims as a rule are not worth fifty dollars an acre, and if they are common miners cannot buy them.

DIVISIONS AND QUANTITIES.

The bill contemplates rectangular divisions and a too small maximum quantity. Any one conversant with mining localities knows that what may be called for convenience "square claims" and regular lines, are impossible. Claims are almost universally oblong—long and narrow; and this is unfailing in quartz claims. Quartz claims cannot be intelligibly measured by the acre, but by the number of feet on the ledge, "following its dips, angles and variations." In placer mines, especially in deep diggings, where expensive tunnels are frequent, a limit of forty acres would usually afford no margin for profit; and this is shown by the fact that such claims usually exceed, by very much, that amount, and yet are deemed reasonable in quantity. Unless a law could be passed making deep gravel deposits, which are difficult of access, very rich, or giving larger bounties for working them there are paid to encourage fisheries, this limitation would prevent such mining. One tunnel in Yuba county is said to be three fourths of a mile long, to have cost several years of labor and $80,000. Forty acres at the end of such a tunnel would embrace much useless ground beyond the lead, if laid out in a square block, as the bill provides; and the portion of the lead embraced would not pay one-sixth of the cost of the tunnel and other heavy expenses of working. Of course, under the system proposed in this bill, such enterprise would be impossible in the future. But, even in the case referred to, the owner would exhaust his privilege in buying the forty acres in the bill and could not buy the land traversed by his tunnel; so he would have no outlet, and could not work the claim. To ravine and cañon claims and to tail flumes, such a measurement would be as impossible of application as to quartz ledges.

RESTRAINS ENTERPRISE.

The bill allows no man to buy and hold at one time more than one claim. By such means the mining which any man may conduct is dwindled to insignificant proportions, and men of enterprise and capital have little motive to remain in the business of mining. No person is permitted to purchase a second claim till he has shown to the satisfaction of the land officers and geologist that he has worked the mineral out of his first claim, and that it will no longer pay the expenses of working; and he must, before being permitted to make a second entry, "sell at public auction, to the highest bidder for cash, the land embraced in his first entry, and which he proposes to abandon." The idea of abandonment is inconsistent with that of sale; but how is he to sell mineral land which will not pay the expenses of working? To work his first tract he may have run a costly tunnel, which would be useful in working the second; but under the bill he must divest himself of it by sale to somebody who has no use for it.

HOW NON-RESIDENTS ARE AFFECTED.

Under our mining system persons not actual residents of a mining district invest capital in its mines, and become shareholders in its companies. Many persons living in the East, especially in New York, have thus invested, to the benefit of the general mining interest. Some miners go East and elsewhere to live, leaving their shares in mines to the care of their partners. In the long lapse of time, by purchase, descent and migration, interests in such property of this character have been acquired and are held by non-residents. The bill provides that any shareholder who is not a resident of the district shall acquire, have, and hold no right of pre-emption, entry or title. It matters not how old his right, how great its cost, he is cut off. We object to this feature of the bill, not on our own account, but on behalf of the people of the other States who are affected by it. The mines have heretofore been open to the acquisition of all the people of the United States. The confiscation contemplated strikes at those who, not being or continuing residents here, have availed themselves of this privilege. The people of California have never considered themselves the exclusive possessors of the mines in this State, and have never attempted to make a selfish rule excluding the participation of non-residents therein. They desire the application of no such rule by the Government.

ABSENT HEIRS.

If any person dies, leaving heirs residing out of the mining district, such heirs cannot inherit his claim unless they move into the district and mine it themselves, but it must be sold by a Probate Court at the end of an expensive process. Such sale would usually be a sacrifice, and the rule would bear with great oppression on females and minor heirs. But why the Government, after selling the land for the exorbitant price of fifty dollars per acre, should seek to hold a qualified fee, to restrain descents and compel and control alienations, does not seem apparent. Judicial sales of mining property would seem to be impossible under the bill, as also the sale by the Probate Court in the case of absent heirs, from the difficulty of finding purchasers where no man is allowed to buy a claim who already holds one. The value of property is principally dependent upon the price it will bring in open market. The bill ingeniously limits the number of persons authorized to purchase, and especially of persons likely, from their business pursuits, to purchase such property, so as almost to destroy the market and value at once.

LUCUS A NON LUCENDO.

The bill provides that persons buying claims in the same subdivision shall hold as tenants in common, with interests in proportion to the relative extent and value of their improvements and mines. Take the case of two quartz ledges traversing the same piece of land; they are independent claims by mining customs, and the owners have no business connection, and may desire none. Who shall decide as to the richness or value of their respective claims and the dependent interests of the proposed tenants, especially if the leads are not fully developed? To place men in the peculiar confidential relation of tenants in common, without their choice, seems oppressive; while litigation for partitions and accounting, embarrassed by difficult questions of relative ownership, seems to promise abundant harvests for attorneys at the expense of mining interests. If it is intended that the purchasers of a subdivision shall hold their respective parts of the tract separately, then they are not tenants in common, and the phrase is infelicitous, and the provision causing their rights to be dependent on values is inoperative.

SPIES AND INFORMERS.

The bill contemplates coinage districts, and restrains the transportation of the precious metals uncoined from one to another, under penalty of confiscation; and to work efficiency in this respect, encourages spies and informers, by giving to them one-half of the confiscated property. Such a system is repugnant to our notions of republican administration, and is unnecessary for revenue purposes, for the present tax on gold and silver, besides coinage duties, is generally and cheerfully paid. It would prevent a person taking to the East specimens of gold or gold-veined quartz, which he might wish to preserve or give away as presents, and, so far as we can see, prohibits the transportation of uncoined gold to be used in manufactures or the arts.

OTHER CONSIDERATIONS.

We have referred to this bill at length, because it illustrates objections that will be likely to exist in any law changing the relations existing between the Government and the mining communities; but we call attention to the fact that the great objection to such change does not arise out of the details of this bill to which we have alluded, but out of the disturbance of an order of things so fully established, so long fostered, so beneficial to all concerned; a system under which the clients of the Government felt secure in their reliance on its good faith and tenderness, and which has become interwoven with the very structure of our society. In the language of one of the resolutions of the great Convention whose sentiments we reflect, we "respectfully petition the Congress of the United States to respect the rights and property interests which the policy of the Government, long continued, has created and fostered." California has deserved better treatment from the Government and people of the East than it will receive if its great property interest is destroyed by hasty or injudicious legislation. We have paid our taxes, amounting to enormous sums derived from customs and internal revenue, with promptness and good feeling. We have faithfully supported the Government in its period of peril. Though a succession of dry seasons impoverished us by blasting our harvests and suspending our placer mining, our contributions to the Sanitary Fund were counted by millions, and we furnished one-fourth of all the money contributed to that great agency of mercy. The agents of the excellent Christian Commission went laden with offerings from our shores. We raised all the regiments the Government would accept for its some garrison and frontier duty, and vainly implored the privilege of raising more, to be taken East, to share in the dangers of our brethren in arms. Many of our young men went East at their own expense, and joined the regiments of other States; and California's sons sleep peacefully on many sacred battlefields of the Republic. We claim to have done nothing more than our duty; but duty faithfully performed is worthy of recognition.

TAXATION UPON THE PRODUCTS OF MINES.

There is no branch of productive industry, so little understood by those not engaged in it as that of mining for the precious metals. The very terms employed are the synonyms of wealth, and naturally connect extravagant ideas of riches with all enterprises for the production of the precious metals. The ownership of a gold mine is assumed as the possession of certain fortune, and occasional successes are heralded to the world as the rule, when they are but the marked exceptions. It would not be singular if the Federal Government should fall into this popular fallacy, and form the idea that in the mines on this coast it possesses supplies of exhaustless wealth, capable of supporting an unlimited degree of taxation; destined not only to relieve the nation from its present burden, but to secure to its citizens boundless prosperity in the future. A few simple propositions will demonstrate that these mining interests are, of all others, least able to bear a heavy weight of taxation, and that national concerns of the first magnitude will be greatly jeopardized by any rash experiments in that direction. Countries producing the precious metals are always poor. In a country so large as ours, with such varied industries, this rule will apply to those sections of it which produce them. The mere extraction from the soil of metals that may be manufactured into coin does not create wealth in the country producing. Its single product, by the invariable laws of trade, leaves at once and forever the place where it is produced in excess; while such is the character of the pursuit that no other enterprise can thrive in its vicinity except those connected directly with its own promotion. The unequal distribution and limited production of the metals still further conduce to this result; for while a large portion of the gains seeks other fields for invest-

ment and enjoyment, a still larger portion is swallowed up in unsuccessful adventures, and the evidences of its loss alone remain in the ruins of extensive works and the poverty produced by unrequited labor. Nor does the product of a successful mine bear any comparison to the proceeds of other remunerative property. The skillful and energetic farmer finds each year the product of his farm increased, the value of his land greater, and his capital thus augmented, or at least unimpaired. But the product of a mine is not its fruits but its substance; it is not the interest, it is the capital itself. The more thorough and scientific the miner, the more certain the exhaustion and consequent worthlessness of the mine; so that any tax levied on the proceeds of a mine is so much taken from the very substance of the property, and not a tithe from its increase—a share in its revenues. The fault is not in any given system of mining, but in the fact of mining. If miners are poor and nomadic all over the world, it is because they can continue miners only by often changing their places of operation, and because of the uncertain gains of the business. These incidents can only be avoided by discontinuing the principal. The necessities of the Government and people will not allow mining to be stopped by turning mining land into poor farms, and therefore these incidents of a necessary business must be accepted without being made an excuse for mischievous experiments.

TAX PAID BY PRODUCER.

Again, the tax levied upon the precious metals in the hands of the miner is paid wholly by the producer; whereas in all other cases the taxes are paid by the consumer. This is manifestly inequitable. When the burden of a national debt is to be borne, justice requires that the taxation by which it is apportioned shall be as equally distributed as practicable through the community. This is done in all other cases by such regulations as place the charge upon the consumer. The tax upon a given article is added by the manufacturer or by the miner, for coal, iron, and other non-precious metals, to his commodity; and though but a few are engaged in producing the article in question, yet as the community at large are the consumers, the burden is equally shared. As these several classes of consumers are in other branches producers, their own products are not only charged with the special taxes imposed upon them, but also with the increased cost of production dependent upon the enhanced cost of other necessary commodities. But a different rule governs the producer of gold. The value of his commodity is not directly affected by the cost of production, whether it be made more expensive from the peculiar nature of his enterprise or the taxes imposed. Accepted as the currency of the world, it possesses an intrinsic or accredited value which he cannot affect, like all others with whom he must deal, by adding to his product the amount of the tax or increased cost of production. If it is worth in the marts of trade $18 per ounce, and the tax takes from each ounce one dollar, it is his loss alone. No one shares it with him. As the miner produces nothing but the precious metals and is a consumer of everything else, he pays as consumer the tax levied upon every other industry and bears alone the burden imposed on his mine. So if by taxation the necessaries of life are so much enhanced in price that the laborer to support his family is compelled to charge a dollar a day more for his labor, the coal miner who employs him can add the dollar to every ton of coal he sells, and does so; but the gold miner cannot add the dollar to the ounce of gold that he sells. Hence, the greater the tax on this kind of mining the greater the inequality of taxation.

IS PROHIBITORY.

But this is not all. There is, doubtless, more labor expended in unprofitable mining than any other pursuit. The reason for this is obvious. The uncertain character of the business, the splendid successes that occasionally are found, and the numberless failures, give to these enterprises all the fascinations of gaming, and men cling to them from the hope of success, when any other pursuit would be abandoned in despair. Mining is thus prosecuted by thousands who derive from their mines a mere subsistence for themselves, although the gross product of the mine, expended among laborers and in the prosecution of the enterprise, may be adding large sums to the currency of the country, and stimulating every branch of industry. It is upon such enterprises that increased taxation falls with crushing weight. If the annual yield of a gold mine is $10,000, and the cost of production $9,500, a small tax on the gross yield virtually destroys the mine, throwing out of employment many men and injuriously affecting every business supported by this and kindred operations. Yet, the present direct tax almost reaches one per cent. on the gross yield, besides the license income and indirect taxes. Again, there is in the history of almost every mining adventure, a period in which extensive credit is required for the development and exploration of the mine. However valuable it may ultimately prove, the owners are the first to bestow this credit, generally by working for years without wages. But merchants and mechanics are also compelled to advance upon adventures of this character; and if the first small returns of the mine, usually falling far below the actual cost of production, are still further diminished by heavy taxation, all such adventures must cease; and mines that might in time, and with proper encouragement, have become remunerative, adding to the resources of the country, remain wholly undeveloped. We have already adverted to the necessary exhaustion that follows from the working of mines. From the result it follows that new mines must be continually discovered and opened to take the place of those exhausted and abandoned. To stimulate this, every inducement should be offered to encourage the working of mines of an inferior character—those in which the cost of working and the value of the yield are about the same. The more valuable and productive mines will always furnish to their owners all the necessary incentive for vigorous development; while, as a matter of fact, the country is far more advantaged by the production of a million of dollars at a cost of nearly a million expended in mining, than it is by the production of a million at a cost of one-tenth that sum. In the one instance a few fortunes would be accumulated; in the other, a host of paying consumers would employ nearly ten times the amount of tax-paying products, thereby adding to the national resources, and the money produced would be thrown directly in the channels of trade, without the chance of being hoarded.

ARGUMENT THAT LANDS ARE FREE.

A comparatively unimportant argument used in favor of taxation of mining industry is, that as the Government charges the miner nothing for the use of his claim, he should pay a large tax on the product. We have shown that we already pay all the tax that this peculiar kind of business will sustain; and the people of California are willing to bear any reasonable burden which bears upon the whole country as it does upon them. But the mere fact that we take this gold from the public lands does not change the matter. The government constantly gives away millions of acres of public lands as homesteads in order to build up communities and create markets. It is not proposed to levy a special tax upon the wheat and corn raised on these donated lands because the lands cost the occupiers nothing. Such a proposition would be less absurd than the argument referred to, because the producer might add the tax to the product, but yet would be seriously entertained by no one.

INCREASED PRODUCTION NECESSARY.

That more gold would be produced by the policy we recommend, cannot be questioned; and we respectfully submit that it is of more importance that the production of gold should be augmented, though without any increase of taxation, than that the same amount should be raised from taxation on a smaller gross product of gold. The government has become a debtor to its citizens and to the world to a vast amount. A speedy resumption of specie payment is indicated. This will be certainly more easily accomplished with an abundant supply of gold thrown into the circulation of the country, stimulating every branch of industry, and lured by the national securities into the nation's coffers. The enhanced prosperity of the country would demonstrate the superiority of this system to the short-sighted policy that taxes the few and thereby prevents the development and prosperity of the many. Besides, should the metallic currency of the world be materially increased, as it is likely to be from the yield of the American mines alone, this fact would of itself enable our government to discharge its present obligations with more ease than it could were not the currency thus enlarged. The product of the mines of California and Australia within the last fifteen years is estimated to have reduced the actual value of the metallic currency over twenty per cent. Should this diminution in value continue, as from increased production it is likely to, we may find that in the next twenty years one-fourth of our debt will be virtually discharged by the silent operation of this law thus regulating the currency of the world. A few additional suggestions are made in the following extract from the editorial columns of a leading journal of this State:

"The large proportion of instances in which the outlay of labor and money in searching for the precious metals results in total loss or inadequate reward gives this pursuit a claim for exemption which the enlightened legislator will not lightly dismiss. The policy of free mining has peopled a large section of California, the States of Nevada and Colorado, Eastern Oregon and the Territories of Arizona, Idaho and Montana. In the greater portion of this vast region, mining industry engrosses attention, sustains the population, and must long be the chief inducement for immigration. Every dollar of revenue the Government collects from these communities is primarily derived from their mines, and, while producing nothing but gold and silver, they are liberal consumers of all the articles upon which Federal taxes are imposed. To tax the yield of the mines to an oppressive extent is to choke the stream of prosperity in those States and Territories as its very source, to impair, if not destroy, their ability to pay their Federal taxes, and to diminish the consumption of articles from which the Government obtains a great share of the revenue which maintains its credit. To continue the present policy is to hasten the settlement of the Pacific slope, promote the discovery and development of the mines and insure a rapid increase of the amount of revenue paid, directly and indirectly, by these growing States.

"The finances and commerce of the nation call for a more extensive production of the precious metals. New York is shipping to Europe every week a half million dollars in specie. Our imports are greatly in excess of our exports, owing to the inflation of prices and the want of cotton for shipment. The balance of trade is against us and must be settled in coin. This has been the course of our foreign trade since 1861. Every year since there has been a drain of specie to Europe, and, but for the steady yield of our mines, both importers and the Government would have been greatly embarrassed, if not utterly unable to procure the gold they demanded—in the one case for the payment of duties, and in the other for the payment of interest on the public debt. In order to restore the specie basis we must not only reduce the volume of paper money and raise more cotton for export, but must increase the production of gold and silver. The development of the mines for this purpose is now used in the East as a strong argument for the speedy construction of the Pacific Railroad. In view of this condition of affairs, whatever tends to discourage mining industry, whether it be a law that interfere with possessory claims or a tax upon the proceeds of mining operations, is not only detrimental to the communities on this coast, but inimical to healthy trade and the restoration of a sound financial basis throughout the land."—*Sac. Union, Jan.* 20, 1866.

CENTRAL PACIFIC RAILROAD LANDS.

It is our duty to call the attention of the Government to the fact that no adequate means are provided by law to segregate the mineral from the agricultural lands lying within the boundaries of the grant to the Central Pacific Railroad Company. By the original statute relating to that company, it was granted land in alternate sections lying ten miles on each side of the road; but it was expressly provided that no mineral lands should be included in the donation. By a subsequent law the grant was extended to twenty miles on each side of the road, with the same reservation. The extension was said to have been made on the assigned reason that so much of the land lying within the lines of the grant was mineral that the company would get but little land. This was true so far as the spirit and intent of the legislation of Congress was concerned. The forty miles referred to traverse for their whole length to the State line some of the most important and prospering mining counties of this State; and probably nearly every acre of land from the foot-hills, which have been designated as commencing a few miles from the city of Sacramento, to the State line, is more valuable for mining than for agriculture; while upon the tract in question are thousands of placer claims, and of quartz claims and mills, valuable mining canals and ditches, and scores of thriving mining towns and villages. This region sustains a numerous population, the basis of whose business is mining, and the best and most celebrated mines of the State are there located. New discoveries of important deposits are made every year under the very shadow of the highest peaks of the Sierras, and extending through the foot-hills to the plains below. Much of the country is rugged and precipitous, all of it hilly, and little adapted by soil or climate to agriculture. Under the law as it at present exists, the railroad company are causing surveys to be made, and procuring the issuance of patents to these lands; and they have already procured patents to a large quantity of land, embracing, as we are informed, and as the Convention believed, valuable tracts of mineral land. Such acquisition was not contemplated—was in fact forbidden—by the Government when it made the grant. But the machinery of the law is so imperfect that we see no means to prevent their getting the fee to these valuable mines, and depriving the Government and its citizens of them, without further legislation by Congress. The next issuance of patents must convey to the company a region peculiarly valuable for its mines and mining improvements; and immediate action by the Government is necessary to protect this important mineral domain, and secure the observance of the terms of donation. We suggest that, the title having passed to the company by patent, the evil becomes remediless, or only remedied by greater expense and trouble than will now be necessary to incur to prevent it. As the matter stands, no question of vested rights can arise, for no right to mineral lands ever vested in the company, and Congress expressly retained the power to "amend, alter or repeal" the Act. We learn, by telegraph from Washington, that the patents thus far issued except the minerals in the land. Whether this is so or not, such exception is inoperative in fact, for the Government will never enter these lands to search for minerals, and the company or its grantees may treat all others who do so as trespassers. Besides, the law excepts not only minerals, but the mineral lands.

We believe the only safety of the Government and the mining interests is in a proper segregation of the mineral lands. To effect this object we respectfully solicit the appointment of Commissioners with adequate compensation, who shall not be stockholders or agents of the railroad company, to report to the General Land Office what lands are mineral and what agricultural, and meanwhile that that office suspend the issuance of patents to the company. The Convention which requested the attention of Congress to this important matter was influenced by no feeling of hostility to the railroad company—whose success in constructing their part of the great national highway it earnestly desired and did not doubt with the legitimate means at the disposal of the company—but merely by an anxiety that the vast property interests referred to should be protected—that the Government should be informed of the character of the lands being improperly patented to the company. In a word, the Convention desired that the Government should give to the company all its rights, but not all the rights of others. Acting upon such considerations, the Legislature of California has passed concurrent resolutions and a memorial requesting that the issuance of patents may be suspended until proper information has been obtained by the Government, which action was indorsed by the Convention.

Respectfully submitted.

A. A. Sargent,
D. Belden,
J. S. Campbell,
Seneca Ewer,
G. Meredith,
} *Committee.*

The Central Mill, Virginia City.—We have already noticed the fact that Mr. George Attwood has leased the Central Mill at Virginia City, thoroughly refitted it, and put it once more in operation. The Virginia *Enterprise* gives the following additional particulars:

The crushing is done by a 10-stamp battery, the old and troublesome grinders having been thrown out. The ores are crushed dry, and the resulting powder is then placed in the reverberatory furnaces, and thoroughly roasted in order to dispel the sulphur and the arsenic and base metals contained in them previous to their being amalgamated. The process in use is the Freiberg or barrel, the same that is used in Captain Dall's mill in Washoe Valley. Mr. John B. Williams is superintendent of the mill, and also superintended the refitting. The mill is now much more conveniently arranged than formerly, and can be run with about half the number of men that were required in the old mill. In the old mill the amalgamating tubs were filled by shoveling the powdered ore into them; as at present arranged the pulp is carried by machinery to a large bin in the second story, whence it is discharged as needed into the larger hoppers from which the barrels are filled. There are six barrels, and each has its bopper, holding the proper charge of one ton for each barrel. The barrels are of an improved kind. The old-fashioned barrels used to wear out in about three or four months from the constant friction of the pulp and scraps of old iron within them, whereas the staves of the improved barrels are not worn at all, being protected by a lining of blocks of wood similar to those placed in sluice boxes in the placer mines of California as false bottoms. The end of the grain of the wood in these blocks being opposed to the friction of the contents of the barrels, they are not worn away as would otherwise be the case. To line the inside of a barrel with such blocks looks like a very difficult job, but like many other things it is easy enough when you know how. A lining of these blocks lasts about six months; the barrels remain about as good as new, and there is nothing to do but reline them. There are six roasting furnaces in the establishment, though but two of these are in use at present. None but very rich ores are worked in the mill, as the cost of working by the process in use is so great that common ores would not pay the price charged for working. The arrangements for cleaning up the barrels and straining the amalgam are convenient and perfect. The mill is now running on Savage ore, and is working about eight tons per day.

The Auburn *Stars and Stripes* mentions the capture of a white robin—all white except its breast.

SALES OF THE WEEK
BY THE S. F. STOCK & EXCHANGE BOARD.

Saturday, February 3.

252 shs Ophir at 380@395 per foot.
24 shs Ophir at 390 per foot, s 3.
2 shs Ophir at 395 per foot. h 3.
8 shs Gould & Curry at 830@850 per foot.
4 shs Gould & Curry at 825 per foot, s 30.
20 shs Gould & Curry at 825 per foot, s 3.
19 shs Savage at 910@895 per foot.
8 shs Savage at 900 per foot, h 3.
13 shs Savage at 900 per foot, s 30.
12 shs Savage at 925 per foot, h 30.
49 shs Chollar-Potosi at 261@257 per foot.
25 shs Chollar-Potosi at 267½@260 pr ft, b 30
5 shs Chollar Potosi at 261 per foot, s 3.
4 shs Chollar-Potosi at 260 per foot, e 30.
24 shs Hale & Norcross at 860@840 per tt.
2 shs Hale & Norcross at 850 per foot, s 3.
10 shs Hale & Norcross at 870@850, b 30.
12 shs Hale & Norcross at 800 per foot, s 30.
7 shs Belcher at 200 per toot.
1 sh Belcher at 200 per foot, b 3.
9 shs Yellow Jacket at 370@335 per foot.
10 shs Yellow Jacket at 375@355 per ft, e 30.
2 shs Yellow Jacket at 370 per share, s 3.
18 shs Crown Point at 775@810 per foot.
8 shs Crown Point at 800@810 per foot, e 3.
23 shs Alpha, G. H., at 250@275 per foot.
1 sh Empire M & M Co. at 210 per share.
17 shs Overman at 46@45 per foot.
10 shs Exchequer at 6¾ per share.
37 shs Imperial at 113@112½ per share.
10 shs Imperial at 112½ per share, h 3.
60 shs Bullion at 46@47½ per share.
20 shs Bullion at 47¾ per share, s 3.
20 shs Bullion at 47½ per share, h 3.
20 she Bullion at 47½ per share, b 5.
40 shs Wide West at 7½ per share, h 10.
Amount of sales.....$123,209 00

Monday, February 5.

28 shs Savage at 895@920 per foot.
12 shs Savage at 900 per foot, b 3.
2 shs Savago at 900 per foot. b 5.
1 eh Savage at 895 per foot, s 5.
2 shs Savage at 900 per foot, s 3.
1 sh Savage at 900 per foot, s 30.
1 eh Savage at 930 per foot, b 20.
4 ehs Chollar-Potosi at 270@265 per ft.
23 shs Hale & Norcross at 850@845 per ft.
1 sh Hale & Norcross at 850 per foot, h 3.
2 shs Hale & Norcross at 850 per foot, h 10.
4 shs Hale & Norcross at 840 per sh, 20 d.
2 shs Hale & Norcross at 830 per foot, 30 d.
4 shs Hale & Norcross at 825 per foot, s 30.
2 shs Hale & Norcross at 860 per foot, h 30.
192 shs Ophir at 380@360 per foot.
60 shs Ophir at 370 per foot, h 3.
24 shs Alpha, G. H., at 260@260 per foot.
8 shs Crown Point at 820 per foot.
4 shs Yellow Jacket at 375@385 per ft.
8 shs Gould & Curry at 820 per toot.
20 shs Confidence at 40 per share.
10 shs Sierra Nevada at 6¼ per share.
5 ehs Bullion at 46 per share.
5 ehs Bullion at 46 per share, b 20.
20 shs Bullion at 45 per share, s 3.
20 shs Bullion at 45¼ per share, h 3
1 sh Cal Stem Nav Co at 59¾ per cent.

AFTERNOON SESSION.

5 sbs Chollar-Potosi at 290 per foot.
5 shs Chollar-Potosi at 282½ per foot.
5 shs Chollar-Potosi at 279 per foot.
5 shs Chollar-Potosi at 230 per foot.
5 shs Chollar-Potosi at 285 per foot.
22 shs Chollar-Potosi at 287¼ per foot.
5 shs Chollar-Potosi at 292½ per ft, b 30.
3 shs Chollar-Potosi at 290 per foot, h 30.
4 shs Chollar-Potosi at 285 per foot.
5 shs Chollar-Potosi at 287¼ per foot, h 5.
5 shs Chollar-Potosi at 287½ per foot. b 30.
5 shs Chollar-Potosi at 285 per foot, e 3.
4 shs Hale & Norcross at 850 per foot.
2 shs Halo & Norcross at 840 per foot, s 25.
2 shs Halo & Noroross at 850 per foot, e 5.
2 shs Hale & Norcross at 855 per foot, s 10.
2 shs Hale & Norcross at 870 per foot.
20 shs Alpha, G. H. at 285 per foot.
4 shs Alpha, G H, at 300 per foot.
8 shs Alpha at 820 per foot.
4 shs Alpha, G H, at 330 per foot.
4 shs Alpha, G. H. at 332½ per foot.
4 sbs Alpha, G. H., at 315 per foot.
1 eh Yellow Jacket at 395 per foot.
1 sb Yellow Jacket at 400 per foot.
8 shs Yellow Jacket at 425@430 per foot.
2 shs Yellow Jacket at 435 per foot.
7 shs Yellow Jacket at 420@415 per ft, s 30.
1 sb Yellow Jacket at 430 per foot, s 3.
1 sb Yellow Jacket at 440 per foot, b 3.
1 sh Savage at 925 per foot, s 3.
2 sbs Savage at 980 per foot, b 30.
2 ehs Savage at 950 per foot.
1 sh Savage at 960 por foot.
4 shs Savage at 940 per foot, e 30.
3 shs Savage at 950 per foot, s 3.
72 shs Ophir at 385 per foot, h 3.
24 sbs Ophir at 385 per foot.
12 shs Opbir at 382 per foot.
5 shs Imperial at 118 per share, e 10.
2 shs Confidence at 40 per share.
10 ehs Overman at 42½ per foot.
5 shs Overman at 40 per share.
Amount of sales.....$168,875 00

Tuesday, February 6.

96 shs Ophir at 405@400 per share.
48 shs Ophir at 400 per foot, s 3.
114 shs Chollar-Potosi at 287@275 per foot.
5 shs Chollar-Potosi at 287¾ per foot, b 4.
5 shs Chollar-Potosi at 287¼ per foot, h 30.
5 shs Chollar-Potosi at 280 per foot, s 30.
18 ehs Halo & Norcross at 900 per foot. s 3.
14 shs Hale & Norcross at 900@890 per foot.
2 shs Halo & Norcross at 875 per foot. e 30.
6 shs Hale & Nororose at 600 per ft, h 5.
4 shs Halc & Norcross at 920 per foot, h 30.
4 ebs Yellow Jacket at 420@410 per foot
20 ebs Crown Point at 840@800 per foot.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, February 10th, 1866.

The Money Markct is exceedingly easy, and the supply of loanable funds is so much in excess of the demand, that some first-class borrowers are obtaining accommodations at 10@12 ₱ cent. per annum. The current rates in Bank are 1@1¼ ₱ cent. per month, upon good securities, and at the lower figure commercial discounts are freely made, with a fair amount of paper offering. Leading mining stocks are obtaining rather more favor with certain capitalists as a collateral, and a number of negotiations of this character were made this week upon favorable terms to the borrower.

Receipts of treasure from domestic sources this week have been light, and did not exceed $875,000. Bullion was in active demand for to-day's steamer, and gold bars met with a ready sale at 855@865. Silver has also been in more request, and is now qnotable at about 1 ₱ cent. premium for bars of average fineness.

The improvement in the Mining Share market inaugurated last week has continued in a material degree, and nearly all first-class stocks have been actively dealt in at higher rates. Recent developments in one or two prominent claims are regarded with much favor, and confidence in their present and prospective value have been somewhat restored. If good pay ore can be found at the depth now attained, it is thought that the continuity of certain portions of the Comstock lode, in depth and width, is well established, for some time to come at least.

Hale & Norcross receded from $860 to $800, seller 30, stoadily advanced to $1,100, and sold yesterday at $1,005@940. Owing to the interruption this week to mail communication with Nevada, advices by letter are meager, as to the progress of recent explorations, but the latest telegraphic dispatches report no material improvement in the body of ore alluded to last week, either in the north or south drifts.

Savage has also shown a still further improvement, and nearly 200 fect were sold, advancing from $895 to $980, receding to $945, rallying to $970, and changing hands yesterday at $935@920. Since the 1st of January the receipts of bullion from the mine amounted to $180,000. In addition to the Minuesota and Central mills, the Piute, Marysville, Land'e, and Santiago mills, are now employed, with a crushing capacity in all of some 130 tons of ore per day. The drift from the winze, 80 feet below the lowei level, has been driven 80 feet to the east.

Gould & Curry fell from $850 to $820, rose to $850, and closed at about $825 bid. The receipts of bullion last month amounted to $133,000. The company's mill turned out $76,836 from 2,750 tons of ore and tailings. The balance ($56,276) was derived from outside mills.

Crown Point has been inactive, but rather well maintained, advancing from $775 to $820, dropping to $775, rallying to $825, and selling yesterday at $800@835. During the month of January the company's mills crushed 1,090 tons of ore, and outside mills 210 tons, the average yield being $39 per ton. During the week ending February 2d, 490 tons of ore were extracted from this mine, 369 tons of which came from the lower level. On the vein of the latter the north drift has now extended 71 feet, and the south drift about 70 feet. A stope has been made 17 feet in hight, and 15 feet wide.

Yellow Jacket has hecn in better favor, and some 225 feet were sold, advaucing from $385 to $435, dropping to $370, rising to $450, and selling yesterday at $450@407½. Telegraphic advices speak favorably of recent developments in the lower level.

Ophir receded from $395 to $370, advanced to $450, and was dealt in yesterday at $450@435. Shipments of bullion during the first week of this month amounted to some $10,000. The River mill has stopped work for the present, and the company now propose to sel the grade of ores usually sent to that establishment for reduction.

Alpha rose from $275 to $325, receded to $280, and sold yesterday at $280@290. The company are said to be earning something over and above current expenses. Belcher fell from $200 to $155, rallied to $185, and closed at about $295, seller 30.

Chollar-Potosi has attracted some attention, and more than 600 feet were dealt in, advancing from $257 to $290, receding to $275, rallying again to $290, then selling at $285@278, and closing at $277. Intelligence from these claime is favorable, although no special change can be noted. Iu the Bajazette ground, the bottom of the stopes being full of ore, have been raising up on the face, and at that point an improvement is shown. The new station, 50 feet below the Potosi tunnel, continues to look well. During the week ending February 3d, 696¼ tons of ore were sent to custom mills. We are informed, upon good authority, that the total indebtedness of this company, both here and in Nevada, will not at this time amount to $5,000—crediting in full the recent assessment of $100 per share.

Empire Mill and Mining was sold yesterday at $215. The bullion product of this mine, last month, exceeded $39,000.

Imperial rose from $112½ to $120, fell to $113½, and sold yesterday at $114. The last clean-up of the company's two mills amounted to $31,836.44, making an aggregate of $81,256.51 for the month of January, from some 3,000 tons of ore. We understand that the surplus on hand is sufficient to cancel their present liabilities.

Bullion rose from $46 to $57 receded to $51, rallied to $55, declined to $52, and sold yesterday at $52@52½. Overman rose from $45 to $49, and closed at $50 bid.

Exchequer has been dealt in to the extent of some 800 shares, within a range of 6½@7½, closing at $6¾. Sierra Nevada rose from 6½ to 8½, and sold yesterday at $9½.

Lady Bryan has revived again, and nearly 1,000 shares changed hands, advancing from $5 to $6¾, and closing at $2½. Daney has been sold within a range of $8@9, closing at $8 asked; and Wide West was sold at $7½.

The aggregate sales of Stocks and Legal Tender Notes since Saturday last amounted to $1,044,435,75.

Fluctuations in Leading Mining Shares for the past Six Months.

Name of Company.	July 10th.	July 20th.	July 30th.	August 10th.	August 20th.	Sept. 1st.	Sept. 10th.	Sept. 20th.	Oct. 1st.	Oct. 10th.	Oct. 20th	Nov. 1st.	Nov. 10th.	Nov. 20th.	Dec. 1st.	Dec. 10th.	Dec. 20th.	Dec. 30th.
Gould & Curry.....per ft.	1,750	1,730	1,500	1,500	1,475	1,135	1,300	1,240	1,250	1,000	1,016	1,010	1,100	875	975	940	850	975
Ophir.....	485	530	425	400	390	280	385	415	340	515	380	425	392	340	370	250	350	370
Savage.....	1,400	1,310	1,175	1,220	1,300	1,300	1,225	1,215	1,225	1,075	930	800	765	625	670	650	960	830
Potosi.....	350	395	430	465	460	440	420	416	472	455	355	350	....	....	....	....	....	....
Chollar.....	370	410	500	490	500	475	455	420	500	480	370	375	508	270	249	130	125	176
Hale & Norcross.....	555	570	525	520	510	480	520	550	750	475	325	306	205	155	150	170	125	280
Sheha.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Daney.....	....	14	....	50	70	43	40	40	35	30	15	10	15	8	....	....	....	....
Wide West.....	8	6	....	....	....	....	....	....	6	....	....	....	....	....	....	....	....	....
Burning Moscow.....	29	25	29	25	34	23	20	5	....	....	....	....	....	....	....	....	....	....
Pride of the West.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bullion.....	176	130	175	157	175	160	....	125	126	125	70	52	67	38	36	32	22	37
Real del Monte.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Overman.....	342	305	200	241	213	190	135	170	175	150	100	95	62	42	43	23	35	65
Sierra Nevada.....	10	14	25	20	18	19	22	21	17	22	12	10	12	8	6½	9	3	10
Yellow Jacket.....	1,115	1,105	1,220	1,350	1,355	1,420	1,400	1,405	1,345	1,110	720	780	670	620	535	235	425	530
White & Murphy.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sides.....	75	60	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Uncle Sam.....	345	307	190	240	215	193	185	....	....	....	....	....	....	....	....	....	....	....
Baltic.....	20	16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
North American.....	35	42	35	30	29	24	16	....	....	....	....	....	....	....	....	....	....	....
Baltimore American.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Melones.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Antelope.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Napoleon.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacramento.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Utah.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lady Bryan.....	6	6	....	6	3	....	....	....	....	....	....	....	....	....	....	....	....	....
Imperial.....	245	218	227	230	255	252	250	221	232	210	174	183	157	150	120	85	100	133
Crown Point.....	800	910	905	890	1,250	1,120	1,115	1,150	1,130	1,025	750	760	720	830	700	490	460	640
Belcher.....	775	850	805	860	865	875	900	910	875	630	400	435	400	300	255	245	160	175
Alpha.....	1,400	1,470	....	1,425	1,500	1,925	1,950	2,100	2,200	1,700	1,000	1,010	790	930	740	600	140	240

20 she Crown Point at 825@850 per foot, h 30.
10 shs Savage at 980@970 per foot.
1 sh Savage at 980 per foot, h 10.
1 sh Savage at 950 per foot, s 30.
40 shs Alpha, O. H., at 315@320 per foot.
1 sh Belcher at 165 per foot.
1 sh Belcher at 165 per foot, s 5.
55 shs Imperial at 115@116¾ per share.
10 shs Imperial at 115 per share, s 8.
20 shs Imperial at 114@115 per share, s 30.
5 shs Imperial at 117 per share, s 5.
25 shs Imperial at 117 per share, s 3.
45 shs Sierra Nevada at 6¼@5¾ per sh.
30 shs Exchequer at 6¼ per share.
2 shs Empire M & M Co. at 210 per sh.
10 shs Wide West at 7½ per sharo, s 30.
9 shs Overman at 48 per toot.
13 shs Overman at 49 per share, h 5.
5 shs Confidence at 40 per share
$ 5,000 Legal Tender Notes at 71¾c, b 30.

AFTERNOON SESSION.

8 shs Chollar-Potosi at 266@270 per foot.
2 shs Chollar Potosi at 277¼ per foot, b 5.
55 shs Chollar-Potosi at 277½ per foot.
5 shs Chollar-Potosi at 279 per foot, h 10.
10 shs Chollar-Potosi at at 278@282 per ft.
10 shs Chollar-Potosi at 280@281 per foot.
16 shs Chollar-Potosi at 281@283 per foot.
6 shs Chollar-Potosi at 284 per foot.
1 sh Savage at 950 per foot.
5 shs Savage at 950@955 per foot.
2 shs Savage at 945 per foot.
1 sh Savage at 945 per foot, s 5.
1 sh Savage at 940 per foot, s 30.
2 sbs Hale & Norcross at 900@930 per ft.
2 shs Halo & Norcross at 890 per foot, s 30.
2 shs Hall & Norcross at 930 per foot.
13 shs Yellow Jacket at 375@400 per foot.
9 shs Yellow Jacket at 375@365 per ft, s 10
3 shs Yellow Jacket at 370 per foot.
1 sh Yellow Jacket at 370 per foot, b 5.
8 shs Alpha at 225 per share.
2 shs Belcher at 155 per foot.
36 shs Ophir at 390 per foot.
10 shs Bullion at 55@50 per share.
15 ehs Bullion at 57 per share.
25 shs Imperial at 115@116 per share, s 30.
10 shs Imperial at 117 per share.
10 she Sierra Nevada at 7 per sharo.
32 shs Sierra Nevada at 6¾ per ehare.
60 shs Sierra Nevada at 6¼ per share.
Amount of sales.....$181,260 25

Wednesday, February 7.

130 shs Ophir at 392½@410 per foot.
36 shs Ophir at 400 per foot, s 3.
12 shs Ophir at 415 per share, b 30.
4 shs Savage at 950 per foot.
2 shs Savago at 950 per foot, s 15.
1 sh Savage at 950 per foot. s 5.
4 shs Savage at 950@955 per foot, e 3.
22 shs Chollar-Potosi at 290@287½ per foot.
13 shs Chollar Potosi at 290 per foot, h 6.
5 shs Chollar-Potosi at 290 per foot, h 10.
5 shs Cnollar-Potosi at 287½ per foot, s 30.
60 shs Daney at 6¼ per foot.
1 sh Yellow Jacket at 390 per foot, h 30.
14 shs Yellow Jacket at 375@370 per foot.
2 shs Yellow Jacket at 370 per foot, s 3.
2 ehs Yellow Jaokot at 360 per foot, s 30.
1 sb Yellow Jacket at 375 per foot, b 10.
1 sh Yellow Jacket at 370 per foot, s 10.
8 shs Hale & Norcross at 965@960, s 3.
6 shs Halo & Norcross at 955@950 per foot.
3 shs Belcher at 175 per foot, b 20.
2 shs Belcher at 180 per foot, h 30.
4 shs Alpha, G. H., at 310 per foot, s 3.
80 shs Sierra Nevada at 7@7¼ per share.
672½ shs Exchequer at 7¼@8¾ per share.
7 shs Overman at 49@48¾ per share.
20 shs Bullion at 52@52½ per share.
16 shs Lady Bryan at 2@2¼ per sharo.
5 shs Cal Steam Nav Co at 59¾ per cent.
69 shs Spring Valley W W at 58¾ per cent.

AFTERNOON SESSION.

1 sh Belcher at 175 per foot, s 3.
2 shs Belcher at 185@180 per foot.
4 shs Crown Point at 775 per foot, b 3.
4 shs Crown Point at 775 per foot,

16 shs Orown Point at 775 per foot, s 3.
36 shs Ophir at 410 per share.
12 shs Ophir at 420 per foot, b 6.
12 shs Ophir at 430 per foot, b 3.
12 shs Ophir at 435 per foot, b 3.
12 shs Ophir at 445 per foot.
2 shs Yellow Jacket at 375 per foot.
3 shs Yellow Jacket at 385 per foot.
1 sh Yellow Jacket at 395 per foot, h 30.
3 shs Yellow Jacket at 390 per foot.
1 shs Yellow Jacket at 380 per toot, s 3.
2 shs Yellow Jacket at 376 per ft, s 30.
4 shs avage at 950 per foot.
1 sh Savage at 960 per foot, h 5.
1 sh Alpha, G H, at 290 per foot.
1 sh Alpha, G H, at 290 per foot, s 3.
2 shs Hale & Norcross at 965 per foot.
4 shs Hale & Norcross at 975@980, b 5.
6 shs Hale & Norcross at 1000 per sh, h 3.
2 shs Chollar-Potosi at 282½ per foot.
9 shs Chollar-Potosi at 280 per foot.
80 shs Daney at 7¼ per foot.
20 shs Daney at 6 per foot.
13 shs Bullion at 50 per share.
27 shs Bullion at 51 per share.
1 sh Empire M & M Co at 210 per sh.
7 shs Imperial at 120@118½ per share.
5 shs Imperial at 118 per share.
15 shs Imperial at 117 per share, s 30.
2 shs Confidence at 40 per share.
142 shs Lady Bryan at 3@3¼ per share.
11 shs Sierra Nevada at 7¼ per share, s 3.
7 shs Sierra Nevada at 7¼ per share.
30 shs Exchequer at 7 per share.
Amount of sales.....$193,991 50

Thursday, February 8.

72 shs Ophir at 435@435 per foot.
36 shs Ophir at 435 per foot, s 3.
6 shs Savage at 960@970 per foot, h 3.
6 shs Savage at 950@970 per foot.
1 sh Savage at 960 per foot, s 5.
3 shs Savage at 950@960 per foot, s 30.
1 sh Savage at 960 per foot, s 3.
1 sh Savage at 960 per foot, s 10.
120 shs Daney at 9@8¾ per foot.
40 shs Hale & Norcross at 1020@1001 per ft.
4 shs Hale & Norcross at 1050 per ft, s 30.
1 sh Yellow Jacket at 400 per foot, h 30.
11 shs Savage at 392½@405 per foot.
2 shs Yellow Jacket at 380 per foot, s 30.
3 shs Yellow Jacket at 400@405 per ft, b 3.
3 shs Yellow Jacket at 400 per foot, s 3.
1 sh Yellow Jacket at 380 per foot, s 10.
3 shs Belcher at 185@172½ per foot.
12 shs Crown Point at 610@825 per foot.
20 shs Crown Point at 815 per toot, s 3.
10 shs Chollar-Potosi at 285@285½, s 3.
19 shs Chollar-Potosi at 290@286 per foot.
4 shs Gould & Curry at 830 per foot,.
15 shs Excelsior at 7 per share.
32 shs Bullion at 51@52½ per share.
145 shs Lady Bryan at 5@5¼ per share.
220 shs Lady Bryan at 5 per share, s 3.
20 shs Lady Bryan at 5¼ per share, s 5.
171 shs Lody Bryan at 5¼ per share, b 3.
5 shs Imperial at 115 per share, s 30.
85 shs Imperial at 116@113 per share.
5 shs Imperial at 115 per share, b 30.
10 shs Imperial at 112 per share, s 20.
15 shs Overman at 56@56½ per share.
2 shs Cal Steam Nav Co at 58½ per et.
2 shs Cal Steam Nav Co at 58 per cent, s 60.
$ 3,000 U. S. 7-30 Bonds at 72 per cent.

AFTERNOON SESSION

12 shs Ophir at 450 per foot, b 30.
36 shs Ophir at 450 per foot.
72 shs Ophir at 450 per foot, b 3.
12 shs Ophir at 450 per foot, s 3
10 shs Yellow Jacket at 400 per foot, s 30.
6 shs Yellow Jacket at 425@435 per foot.
1 sh Yellow Jacket at 435 per foot, s 5.
1 shs Yellow Jacket at 435 per foot, s 10.
2 shs Yellow Jacket at 435@440 pr ft, Sat.
1 sh Yellow Jacket at 445 per ft, s 5.
11 shs Yellow Jacket at 435@ 435 per ft. s 30.
11 shs Yellow Jacket at 440@445 per sh, s 3.
14 shs Yellow Jacket at 450@447½ per ft.
1 sh Yellow Jacket at 450 per foot, Sat.
1 sh Yellow Jacket at 400 per foot, s 10.
4 shs Crown Point at 830@830 per foot.
22 shs Chollar-Potosi at 286½ per foot.
6 shs Chollar-Potosi at 280 per foot, b 5.
28 shs Chollar-Potosi at 285 per foot.
4 shs Alpha, G. H., at 285 per foot, s 3.
7 shs Savage at 965@975 per foot.
4 shs Savage at 950@725 per feet.
1 sh Savag at 940 per foot, b 5.
12 shs Hale & Norcross at 1050@1040 per ft.
110 shs Lady Bryan at 7@6¾ per share.
140 shs Lady Bryan at 6¾@6¼ per share.
10 shs Lady Bryan at 6 per share.
20 shs Imperial at 113@114 per share, s 30.
25 shs Exchequer at 7@6¾ per share.
10 shs Exchequer at 7 per share, h 20.
20 shs Bullion at 52 per share.
50 shs Sierra Nevada at 8½ per share.
Amount of sales.....$208,678 25

Friday, February 9.

163 shs Ophir at 447½@445 per foot.
192 shs Ophir at 460 per toot, b 30.
24 shs Ophir at 490 per foot, b 30.
48 shs Ophir at 440 per foot, s 30.
12 shs Ophir at 450 per foot.
11 shs Yellow Jacket at 435 per foot.
20 shs Yellow Jacket at 430@440 per foot.
22 shs Yellow Jacket at 420@425 per foot.
2 shs Yellow Jacket at 420@425 per foot.
6 shs Savage at 935@925 per foot, b 10.
6 shs Savage at 910@910 per foot.
5 shs Savage at 900 per foot, s 20.
4 shs Savage at 925 per foot, b 30.
85 shs Imperial at 115@114½ per share.
27 shs Chollar-Potosi at 275@281 per foot.
27 shs Chollar-Potosi at 275@278 per foot.
8 shs Crown Point at 810@800 per foot.
4 shs Crown Point at 835 per foot, b 30.
2 shs Hale & Norcross at 1005 per foot.
8 shs Gould & Curry at 820 per foot.
45 shs Bullion at 52 per share.
51 shs Belcher at 156@160 per foot.
22 shs Confidence at 37@40 per share,
2 shs Overman at 56 per foot.
110 shs Sierra Nevada at 6¾ per share, s 3.
1 sh Empire M & M Co. at 215 per sh.
160 shs Exchequer at 7@6¾ per share.
20 shs Lady Bryan at 6¼@6 per share.
6 shs Cal Steam Nav Co at 57 per cent.
$20,000 Legal Tender Notes at 71⅞@71¾c.

AFTERNOON SESSION.

14 shs Savage at 925@900 per foot.
6 shs Savage at 915@920 per foot, b 3.
208 shs Ophir at 520 per foot.
276 shs Ophir at 445@ 435 per foot.
108 shs Ophir at 430@ 460 per share, b 30.
5 shs Imperial at 114 per share.
6 shs Yellow Jacket at 410@405 per ft.
6 shs Yellow Jacket at 410@405 per ft.
12 shs Hale & Norcross at 940@925 per foot.
22 shs Hale & Norcross at 930@940 per foot.
9 shs Chollar-Potosi at 270@277 per foot.
21 shs Belcher at 160@160 per foot.
2 shs Empire Mill & M. Co. at 200 per sh.
155 shs Sierra Nevada at 9@9½ per sh.
41 shs Alpha, G. H., at 295 per foot, s 30.
15 shs Bullion at 52¼ per share.
30 shs Lady Bryan at 2¾ per share.
Amount of sales.....$163,420 50

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment, Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	DAY OF SALE.
Animas, Durango, Mex.,	40c	Feb 3	Feb 19*
Azawam, Nye co.,	$1	Jan 13	Feb 8*
Arbitrios, Chihuahua, Mex.,	$1	Feb 3	Feb 15
Alpha, Storey co , Nev.,	$50	Jan 18	Feb 17
Adams' Petroleum co			Sale Feb 9
Blue Ledge, Lander co.,	$1	Feb 3	Feb 19*
Bullion			Sale Feb 17
Bunker Hill, El Dorado co.,	$1.50	Jan 20	Feb 2
Consolidated Silver Hill M Co., Nev.,	$2	Feb 17	Mar 3*
Capitola,	20c	Feb 8	Feb 22
Capital		Meeting	Feb 6
Chipiopema, Sonora, Mex.,	$5	Jnu 27	Feb 7
Cassedl, Nevada co., Cal.,	$5	Feb 10	Feb 26
Caledonia Tunnel, Gold Hill, Nev.,	$2	Dec 23	Feb 3
Chollar-Potosi, Storey co , Nov.,	$100	Jun 21	Feb 1
Confidence, Storey co., Nev.,	$25	Jan 22	Feb 6
Cosala, Sinaloa, Mex.,	$1	Jun 29	Feb 10
Comet Petroleum co.,	30c	Feb 24	Mar 6
Diana, Lander co., Nev.,	$10	Jan 20	Feb 16*
Dios Padre, Alamos, Mex.,	$2	Feb 2	Feb 14
Daney, Lyon co., Nev.,	50c	Mar 5	Mar 26
Evoca, Del Norte co., Cal.,	25c	Mar 3	Mar 19*
Emerald Copper,	$1	Feb 10	Feb 24
Elk Horn, Petroleum,	50	Feb 7	Feb 23
Exchequer, Storay co., Nev.,	$2	Jnn 17	Feb 1
El Taste, Sonora, Mex.,	$2	Feb 26	Mar 10
Franco-Americana, Mex.,	25c	Jan 26	Feb 9
Great Western Tunnel Co., Aurora, Nev		Jane 27	Feb 10*
Geo Washington, Alpine co.,	$1	June 27	Feb 13*
Hanscom, Copper, Del Norte co.,	15c	Feb 24	Mar 10*
Hornet, Lander co., Nev.,	$1	Jun 20	Feb 6*
Hale & Norcross, Storey co., Nev.,	$25	Mar 6	Mar 19
Iowa, Storey co., Nev		Meeting	Feb 12
"I.X.L.," Alpine co., Cal.,	$2.50	Mar 5	Mar 19
Jewett, Storey co., Nev.,	$1	Mar 3	Mar 20*
Jeffrey Oil,	60c	Feb 19	Mar 3
Kentucky Copper, Calaveras co.,	$1	Jan 20	Feb 7*
Leland, Arizona,	50c	Mar 3	Mar 19*
Lady of the Lake, Arizona		Mar 3	Mar 19
Lady Bryan, Storey co., Nev.,	$1	Feb 5	Feb 16*
London Quartz,	50c	Feb 20	March 10
Libertad, Sonora, Mex		Meeting	Feb 5
La Fernandez, Sonora, Mex.,	$5	Mar 1	Mar 15
Maggie, Lander co., Nev.,	$5	Feb 14	Mar 3
Morning Star, Alpine co.,	$1	Mar 3	Mar 19
Napoleon, Calaveras co.,	$7	Jan 23	Feb 3
Nuestra Senora de Guadalupe, Durango,	$1	Jan 27	Feb 14
New Idria		Meeting	Feb 8
North American		Sale,	Feb 10
Nonpareil,	$1	Feb 20	Mar 10
North American Tin co		Annual	Meeting Feb 7
Oxford Beta, Esmeralda co., Nev.,	60c	Feb 17	March 3*
Owen's River Canal co.,	40c	Feb 3	Feb 19*
Overman, Storey co., Nev.,	$10	Feb 9	Feb 26
Providence, Nevada co., Cal.,	$1	Mar 17	Mar 31*
Peninsula, Lower Cal		Sale	Feb 8
Refugio, Chihuahua, Mex.,	$2½	Feb 10	Feb 24
Rodgers, Storey co., Nev.,	$3	Feb 27	Mar 12
Southern Light, Lander co., Nev.,	$12.50	Mar 10	Mar 26*
Salamander, Calaveras co., Cal.,	20c	June 27	Feb 10*
Santiago, Lyou co., Nev ,	$1	Jan 22	Feb 10
Sweet Vengeance, Yuba co.,	$1	Jan 20	Feb 16
Shoshone, Lander co., Nev.,	$1	Jan 29	Feb 12
Santiago, Lyon co., Nev.,	$1	Feb 1	Feb 20
Sierra Valley, Plumas co., Cal.,	$1	Mar 5	Mar 17
Tuolumne Mountain,	50c	Feb 10	Feb 26
United States, Storey co., Nev.,	50c	Mar 17	Mar 31*
Union Mattole, Humboldt co.,	$5	Jan 19	Feb 6*
Ventana, Durango, Mex		Annual	Meeting Feb 8
Wide West, Alpine co.,	$3	Feb 3	Mar 2*
Yuba, Brown's Valley,	$3	Feb 3	Feb 17*
Yosemite, Humboldt co., Nev.,	$1.25	Jan 20	Feb 6*

*Those marked with au asterisk (*) are advertised in this journal.

ASSESSMENT AND SALE LIST

OF CLAIMS IN

VIRGINIA AND GOLD HILL DISTRICTS.

CORRECTED WEEKLY FROM LATEST DATES OF THE TERRITORIAL ENTERPRISE.

[This list embraces Companies advertised in Virginia City papers, most of which are not incorporated or advertised in San Francisco.

Assessments Levied.

Name of Company.	Date of Levy.	Am't per foot
California Consolidated	Jan 5	1 00
Globe	Dec 24	1 00
Overmun	Jan 9	10 00
Peck	Jan 3	1 00
Rodgers	Jan 23	10 00

Delinquent Sales.

Name of Company.	Date of Sale.	Place of Sale.
Bullion	Feb 27	Virginia
Alpha	Feb 17	Gold Hill
American Basin	Feb 16	Virginia
Almaden	Feb 9	Virginia
Belcher	Feb 15	Virginia
Belcher, Baldwin & Abernethy	Feb 15	Virginia
Coercion	Feb 19	Virginia
Caledonia Tunnel	Feb 3	San Francisco
Confidence	Feb 6	San Francisco
Globe	Feb 23	Virginia
Kossuth	Feb 10	Virginia
Kentuck	Feb 2	San Francisco
McMeans & Williams	Feb 20	Virginia
North American	Feb 10	Virginia
North Comstock	Feb 24	Virginia
Utah	Feb 3	Virginia
Union	Feb 5	Virginia

San Francisco Stock and Exchange Board.

SAN FRANCISCO, Feb. 3, 1866.

	Bid.	Asked.
United States 7 3-10ths	$ 72¼	$ 73
Gov. Legal Tender Notes	71¼	72
State Bonds, 7 ₱ cent	83	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	67	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	50	55
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	60	..
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	65	30
California Navigation Co	57	58
State Telegraph Stock	25	..
San Francisco Gas Co	103	104
Sacramento Gas Co	..	75
Spring Valley Water Co	58½	60
RAILROADS.		
Sacramento Valley Railroad	..	
Omnibus Railroad	44	45
Central Railroad Co	..	65
North Beach and Mission	44	46
MINING STOCKS.		
Ophir	$ 440	$ 450
Gould & Curry	625	840
Empire M. & M. Co	210	220
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	925	930
Chollar-Potosi	275	280
Hale & Norcross	940	945
White & Murphy	....	....
Sierra Nevada	6¾	9¼
Yellow Jacket	425	430
Overman	55	56
Cedar Hill Tunnel	....	....
Wide West	7	10
Crown Point	820	630
Antelope	....	....
Emeralda	1	5
Aetna	....	....
Real del Monte	..	15
Bullion, G. H.	52	53
Buckeye	....	....
Dick Sides	....	....
Imperial	114	115
Alpha	290	295

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 50	@	7 25
Do Superfine	5 75	@	7 00
Corn Meal, ₱ 100 lb		@	3 50
Wheat, ₱ 100 lb	2 10	@	2 25
Oats, choice, ₱ 100 lb	2 05	@	2 10
Barley, ₱ 100 lb	1 10	@	1 12
Beans, ₱ 100 lb	3 50	@	4 50
Potatoes, ₱ 100 lb	1 05	@	1 12
Hay, ₱ ton	9 00	@	10 00
Live Oak Wood, ₱ cord	8 00	@	10 00
Beef, on foot, ₱ lb		@	7
Beef, extra, dressed, ₱ lb	12½	@	15
Sheep, on foot,	1 00	@	2 00
Hogs, on foot, ₱ lb	9	@	10
Hogs, dressed, ₱ lb	13	@	14
Groceries, Etc.			
Sugar, crushed, ₱ lb	16	@	—
Do China	10	@	12½
Coffee, Costa Rica, ₱ lb	—	@	27
Do Rio	28	@	—
Tea, Japan, ₱ lb	65	@	1 00
Do Greca	70	@	1 00
Hawaiian Rice, ₱ lb	10	@	—
China do.	7	@	8
Coal Oil, ₱ gal		@	1 20
Candles, ₱ lb	24	@	37
Ranch Butter, ₱ lb	55	@	65
Isthmus do	35	@	40
Cheese, California, ₱ lb	20	@	26
Eggs, ₱ doz	45	@	50
Lard, ₱ lb	22	@	23
Hams and Bacon, ₱ lb	26	@	30
Cranberries, ₱ gal	1 00	@	—
Potatoes, sweet, ₱ lb	8	@	—
do Irish, ₱ lb	1	@	2½
Tomatoes, ₱ lb	5	@	8
Onions, ₱ lb	4	@	6
Apples, No. 1, ₱ lb	6	@	10
Pears, table ₱ lb	3	@	10
Plums, dried, ₱ lb	15	@	25
Peaches, dried, ₱ lb	15	@	25
Grapes, ₱ lb	5	@	15
Oranges, ₱ doz	62	@	75
Lemons, ₱ doz	1 25	@	1 50
Chickens, apiece	67	@	1 12

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	50	@	70
do pickled ₱ lb	—	@	—
do Oregon	65	@	40
do New York, ₱ lb	45	@	50
Cheese, ₱ lb	25	@	35
Honey, ₱ lb	30	@	40
Eggs, ₱ doz	50	@	60
Lard, ₱ lb	22	@	26
Hams and Bacon, ₱ lb	26	@	30
Cranberries, ₱ gal	1 00	@	—
Potatoes, sweet, ₱ lb	8	@	—
do Irish, ₱ lb	1	@	2½
Tomatoes, ₱ lb	5	@	8
Onions, ₱ lb	4	@	6
Apples, No. 1, ₱ lb	6	@	10
Pears, table ₱ lb	3	@	10
Plums, dried, ₱ lb	15	@	25
Peaches, dried, ₱ lb	15	@	25
Grapes, ₱ lb	5	@	15
Oranges, ₱ doz	62	@	75
Lemons, ₱ doz	1 25	@	1 50
Chickens, apiece	67	@	1 12

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, Feb. 2, 1666.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1¼c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1¼c ₱ lb; Galvanized 2¼c ₱ lb.

Scotch and English Pig ₱ ton	52½	@	55
American Pig ₱ ton	50	@	52¼
Refined Bar, bad assortment, ₱ lb	3	@	—
Refined Bar, good assortment, ₱ lb	3½	@	—
Boiler No. 1 to 4	4	@	5
Plate No. 5 to 9	4½	@	6
Sheet No. 10 to 13	4	@	—
Sheet No. 14 to 20	5	@	—
Sheet No. 24 to 27	5½	@	—

COPPER.—Duty: Sheathing 6¾c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing ₱ lb	30	@	38
Sheathing, Old	20	@	30
Sheathing, Yellow	36	@	37
Sheathing, Old Yellow	12	@	13
Bolts	13	@	16
Composition Nails	30	@	32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	14	@	15
Plates, I C Charcoal	12	@	13
Roofing Plates	11	@	12
Banca in Slabs, ₱ lb	41	@	42½
STEEL.—English Cast Steel, ₱ lb	12½	@	16
QUICKSILVER.—Per lb	—	@	65
For export	55	@	—
ZINC.—Sheets ₱ lb	9½	@	10
LEAD.—Pig ₱ lb	7	@	6
Sheet	10	@	12
Pipe	10	@	12
Bar	0½	@	10
BORAX—California, ₱ lb	20	@	23

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, Mr. TURNER HAMILTON, at the Assembly Building, 106 South Tenth street, Philadelphia, Pa., where samp copies of our publications can always be found.

MINING BLANKS

For Sale

AT THE

OFFICE OF THE MINING AND SCIENTIFIC PRESS

No. 505 Clay Street, corner of Sansome.

Blanks for Mining Companies, Secretaries, Shareholders and others, always on hand, or printed to order, at our office.

Among others are those of the following forms:

Shareholder's Proxy.

Know all men by these presents, that I, ... do hereby constitute and appoint ..... my attorney and agent, for me and in my name, to vote as my proxy, at a meeting of the ..... Mining Company, to be held ..... 186 , according to the number of votes that I should be entitled to cast were I there personally present.

In witness whereof I have this day hereunto set my hand and seal. .....[Seal]

Dated 186

Assessment Notice.

..... Company

.....

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ..th day of ....., 186 , an Assessment of .....per share was levied upon the Capital Stock of said Company, payable on the ..th day of ....., 186 , in United States gold and silver coin to the Secretary.

Any stock upon which said Assessment shall remain unpaid on Saturday, the ..th day of ....., 186 , will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on ....., the ..th day of ....., 186 , to pay the delinquent Assessment, to gether with the costs of advertising and expenses of the sale. By order of the Board of Trustees.

..... Secrotary.

Office.....

NOTICE.—There are delinquent, upon the following described Stock, on account of assessment levied on the ..th day of ..... 186 , the several amounts set opposite the names of the respective shareholders as follows, to wit:

Names.	No. Certificate.	No. Shares.	Amount.
Theophilus Thistle	23	14	$140 00
Peter Pipe	2	3	30 00

And in accordance with law and an order of the Board of Trustees, made on the ..th day of ..... , 186 , so many shares of each parcel of said stock as may be necessary, will be sold at the .....

.....on ....., the ..th day of ....., 186 , at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

..... Secretary.

Office.....

☞ Our advertisers are furnished with blank Assessment Sale notices free of charge. Orders from the interior promptly filled, by mail or express, as may be desired.

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of ALVA L. STILES, deceased. Order to show cause why order of sale of real estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by John M. Stiles, the Administrator of the estate of Alva L. Stiles, deceased, praying for an order of sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts, expenses and charges of administration that have already accrued, and the debts, expenses and charges of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said Administrator to sell so much of the real estate of the said deceased, as shall be necessary for the purposes abovementioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Courts of said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, cancelled. [Seal.] } WM. LOEWY, Clerk.

By A. J. JEGHERS, Deputy Clerk.

THOS. B. BISHOP, Attorney. 2v12-4w

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of SAMUEL L. DENNISON, deceased. Order to show cause why Order of Sale of Real Estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by C. E. McNear and Patrick Scully, who are creditors of said Estate of Samuel L. Donnison, deceased, praying for an order of Sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts outstanding against said deceased, the debts, expenses, and charges of administration that have already accrued, and the debts, expenses, and charges of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said petitioners, authorizing and requiring the Administratrix of said estate to sell so much of the real estate of the said deceased, as shall be necessary for the purposes abovementioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County, and that a citation issue to Maria J. Dennison, the Administratrix of said estate, and be served upon her at least four weeks prior to the time above-mentioned for said hearing.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand, and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, cancelled. [Seal.] } WM. LOEWY, Clerk.

By A. J. JEGHERS, Deputy Clerk.

POTTER & HOLLADAY, Attorneys for Petitioners. 2v12-4w

Mining Summary.

CALIFORNIA.

The immense rains which have prevailed since December have given ample assurance that the coming season will give us a bountiful harvest from the hydraulic and other placer mines of California. No doubt much damage has occurred by the sweeping away of flumes, ditches and other improvements, hut the never-failing energy of our mining friends will soon replace them, and their losses will be more or less compensated for hy the liheral supply of water, and the washing away of refuse tailings, etc.

The important hranch of qnartz mining is gaining vigor throughout the whole coast. For several months the stock in many of our incorporated companies has heen going through a concentrating process, and hetter management may he expected hereafter. Two and a half years ago people were murtgaging their property, to huy *stock* in unknown mines. Now we hear of the examination and purchase of *mines* by parties able to work them. The comparative results of the two classes of investment, so far as honest people are concerned, can be easily foretold.

ALPINE COUNTY.—The mines in Silver Mountain district are meeting with attractive results, and the value of our mines in this portion of the State muet soon become apparent. We are ohliged to our reliahle friend for the following:

MARKLEEVILLE, Jan. 29th, 1866.—*Editors Mining and Scientific Press:*—The Mullen company, in Mogul district, have struck a ledge of dark looking quartz, six feet thick. This claim was located for an extension of the Morning Star, and a tunnel started so as to tap tbe ledge several hundred feet deep; hut after running a short distance they came in contact with a ledge. After following it a few feet they proceeded to cut through it, and found some very good rock. The ore is of a dark, iron color, appearing as if filled with base metals. It shows some ruhy silver. An assay was made to-day by Dr. Waters of this place, proving $38 per ton. This assay was sampled from a quantity of the rock, eo as to get an average. The Doctor thinks it will work very easily. The ledge is probably a spur from the Morning Star. The point cut is not more tban fifty feet below the surface. As the ledge leads into tbe hill it is quite likely it will improve. The walls are well defined. The lode is accompanied with mud casings, and the rock is easily taken out with a pick and shovel.

H. M.

George Washington Company.—The Monitor Gazette, alluding to the circular of the Secretary, Mr. W. D. Root, saye: We learn with pleaeure that their affairs so long in rather a mixed state are assuming a business-like shape, and will soon he square and true. From recent letters received hy the Secretary from S. A. Hawkins, Esq., Superintendent of the mine at Silver Mountain, and published with the addrees, we shonld judge the work there to he in a most prosperous condition and the tunnel near the long-sought ledge.

Rich Croppings.—J. E. White sent down to us, on Thursday evening, some samples of top rock from the St. Lawrence claim, in Scandinavian Cañon, that exhibits tbe pure *plata*. The St. Lawrence is a northern extension of the Wide West, and from the appearance of the qnartz eent ns, we should pronounce it Buckeye No. 1.—*Silver Mountain Bulletin.*

The last named paper encouragee the disposal of a portion of the claims of tbe Buckeye Co., No. 1, to an Eastern company for whom the Messrs. Pilkington Bros. are agents.

CALAVERAE COUNTY.—*Hill Claim.*—Thompson Wilson & Co., have a claim on the side of Douglas Hill, on which they have snuk a shaft twenty-seven feet, and have run a drift about twenty feet in one direction and in another ahout fifty, from which they are getting very good pay dirt, with every prospect of striking it better as they approach the bed-rock. The dirt is cemented gravel and hard to wash, which is the case with most of the pay-dirt in this hill. McGarr and McMiniman are drifting dirt from their claim which prospects well, and from which they expect to get good pay. Their shaft is about thirty feet deep; from the bottom of which they have driftcd about two hundred feet on Jordan Hill.

Barker, Anert, Shaw & Co, are getting from six to eight dollars to the hand from their hydraulic diggings, employing five or six men. The Nohle Copper Mining Company have struck the main vein. This will give encouragement to other proprietors in the vicinity.

MARIN COUNTY.—The Ewing claim, near Bolinas, has struck a vein of twenty per cent., copper ore two feet thick, and is taking large quantities for shipment.

NEVADA COUNTY.—We extract from recent dates of the Nevada *Gazette* as follows: At Hunter Hill, Clay & Co. have struck the pay lead and are taking out very rich cement in considerahle quantity. Their mill will be started immediately.

Cozzens & Garher, whose mill is situated between Red Dog and You Bet, have been crushing extraordinary rich cement during the past week or two, and expect to make a hig clean-up.

Denois McKeon and others are putting up pipes and other fixtures to work a hody of hydraulic claims near Peck's Ravine, to the right of the ridge road leading to Rough & Ready. The claims cover some twenty-five acres of land, have a good outlet, and are believed to be rich. They were worked by McKeon some six years ago, and paid very well by the old sluicing process.

Water is reported plentiful at Little York and vicinity.

The *Transcript* says: Miners are engaged in ground sluicing in the ravine just below the Union Hotel, in the city of Nevada. The ground in that neighborhood is said to be very rich, and old miners tell us that an immense fortune could he taken out along the line of Main street.

From the Grass Valley *National*: A splendid ledge was discovered a few days since, about three miles below Nevada. It ie called the "Git-up-and-git."

Some very rich rock is being taken out of Hueston Hill. It is almost, if not quite as good as that from the Ophir Hill.

Lee's mill, now heing constructed on Ophir Hill, is nearly completed. It will undoubtedly be the finest quartz mill in tbe State of California.

Stiles' quartz mill, near Nevada, is now kept constantly at work upon rock from the Star Spangled Banner ledge. They are running eight stamps and the same number of pane in use. The rock ie paying well.

The famoue Watt claims have been worked out to the line, and operations suspended. The Watt Brothers have been successful miners and seem to enjoy to a remarkable degree the good will of their neighhors. They own an interest in the Eureka mine, one of the richest in this region, and will continue mining operations, probably for some time to come. The first extension on the late Watt claim at Rocky Bar, or Massachusetts Hill, is that of the Stockbridge Company—the next that of Con. Reilly and Martin Ford, and another that of the French Company, of which A. B. Brady is Superintendent.

EL DORADO.—The Placerville *Mirror* says: Two thousand tons of copper were shipped from the Latrohe miues during the six months ending January 1st. It is expected that the quantity will he considerably increased in the next six months. The mines are very closc to the Placerville and S. V. R. R.

SHASTA COUNTY.—The *Courier* reports the following: On the 13tb Jan., the Highland Company cleaned up $4.747.91 from a two weeks run. During the year ending December 31st, 1865, the Company took out $67,249.12, and paid between eight and nine thousand dollars to each share in the company—five sharee in all; and their mioe is now looking better than when they commenced work January 1st, 1865.

Tbe editor of the *Courier* discloses his belief that "Salt Pork Ridge" is rieb in gold, and adds: "who will try it? A company of six miners could do it witbout trouble, and make a fortune by it."

Washington Company.—This company took out of their claim, during the year 1865, $20,112 59, but have not paid a dollar in dividends. This is the oldeet miue in the county, and is more fully proved than any other. By the 1st of March the Washington will in all probability be proved for twenty years' work, and then dividends will gladden the hearts of shareholders for a long time without intermission.

SIERRA COUNTY.—J. F. Cowdrey, Esq., has leased the ledge of the Slug Cañon Quartz Co., and resumed work with a 5-stamp mill, says the Downieville *Advocate*.

SACRAMENTO COUNTY.—The *Telegraph* says the mines at and near Folsom are all paying wages. Tbe mines at New Diggings, which have been recently discovered about two miles from Folsom, are making from four to five dollars a day to tbe hand.

YUBA COUNTY.—Brown's Valley, Jan., 1866. *Editors Press:*—The importance of the mines of Yuba county is such that I deem it hut just and proper that your readers should, from time to time, learn something ahout them. As to Brown's Valley, tbe general despondency in mining and mining transactions bas, during the last two years, greatly retarded the development of our mineral resources. Lack of faith bas kept back the needful means, without which there can certainly he no successful mining.

Our quartz claims suffered much even from the first rains of the present season. The Jefferson company, for instance, lost nearly two months' time in pumping and changing machinery, pumps, etc. They have, however, still a most substantial ledge of rieb quartz, and will soon he ready again to declare their regular monthly dividends of $20 per share.

The Dannehroge company have again found tbeir former pay streak, and would he doing well if it were not for the too great volume of water they also have to contend with.

The new machinery (30-horse power) of the Yuha company is giving good satisfaction; the company is already taking out good quartz, and things, generally, look encouraging in this claim.

The Pennsylvania company will resume work within a few days. The parties now holding the stock of this company are ahle and willing to develop this claim without any further interuption.

There are, certainly, a great many good quartz claims at and around Brown's Valley, but as to the so-called Pennsylvania lode, on which are tbe Dan. Webster, Pacific, Jefferson, Pennsylvania, Burnside, Paragon, and, perhaps, other claims, there can he no doubt but that it will soon be found to hc onc of the very hest on this coast. It is, therefore, much to he regretted that, for lack of means, many of these claims are not worked at all.

It is, indeed, a pity to see so many of our miners and enterprising citizens heading their steps and risking their money, time, and, perhaps, their lives, in far distant countries, when we have so many promising and good mines close at hand.

Besides Brown's Valley, we have in Yuba county a great many other quartz veins, which, certainly, would prove remunerative if they were but worked and managed with the same economy, knowledge, or experience, which we generally deem requisite in order to succeed in our own private business concerns. Five dollars per ton will cover all expenses in working quartz in Yuba county.

About French Town, near the Oregon House, may he seen more good and substantial quartz ledges than can, perhaps, be found in this or any other mining district in California. So far, scarcely any attempt has been made to prospect them. Some, however, have been prospected, and, according to assay memorandums, which I have seen myself, they seem to pay from $30 to $40 per ton—namely, ahout $20 in silver and $20 in gold.

Our hydraulic diggings at Smartsville must still be considered as leading claims in California. The famous Blue Gravel claim continues to be the wonder of the county. The Clarks' claim, which but a short time ago became the property of Eastern capitalists, will soon be piping; the bed-rock tunnel being about completed, a rich harvest is near at hand. The claims of the Nevada Reservoir Ditch company are paying better this year than ever before, and the cleanings-up from their Blue Point, as well as Union claims, are most satisfactory. Under the able management of R. L. Crary, the President, the works of this company cannot fail to attract the attention of capitalists who can easily perceive that, with a comparatively small outlay of money, the claims can be made to yield fully as much as those of the Blue Gravel company.

M.

NEVADA.

The Nye county *News* says: Mr. Evans, of Mammoth District, came into the office, and showered upon our table, from a large buckskin wallet, several silver bricks, which, though small in size, were none the less valuable, as evidences of the richness of the mines of Mammotb District. Tbese "specimen bricks" were obtained by a rude process of reduction, the ore being worked in a quicksilver flask, then baked in a common bake oven, and also amalgamated in an oven. The following is the result of the working: From eight pounds of Silver Cloud rock, there were 3¾ ounces hullion obtained. Tbe Silver Cloud is rich in silver, and also contains a large amount of base metal, and in order to save the silver, requires skillful working. From two lots of Almaden rock, of twenty pounds each, there were obtained 2⅝ and 2⅜ ounces hullion. From the General Average claim, twenty pounds of rock, 3⅜ ounces. This was fine looking bullion, and we think shows a good "general average." From two lots of Vigilante ore, of seventeen and twenty pounds, we have 1⅛ and 2 ounces. From the Bowers, eight and a quarter pounds of rock, 1⅝ ounces; Uncle Sam claim, ten pounds of ore, 1⅜ onuces; seven pounds Josephine, one-half ounce; ten pounds Sunlight one-half ounce, about one-half of which was gold. Should the weather continue favorable, it is expected that the mill of W. T. Jones, will be in operation next week, and the above workings are merely tests to see what may he expected. The miners of Mammoth District are all hard at work, taking out good ore, and the prospect seems good for the erection of a number of mills in that District the coming season.

Among tbe claims heing most vigorously worked near tbis town, with gratifying results, we might mention the Stonewall, Indianapolis, Pleiades, Brown, Mountain Brow, Yolo, Clipper, Utica, Vanderblit, Revenue, North Star, Warreo, and many others. We predict that with tbe opening of spring, we shall see such a swarm of miners upon our hills, as will astonish even the most sanguine of the old pioneers.

BUCKEYE MILL.—The mill of the Buckeye Mining Company, near Silver City, has been attached. The mine is said to he a good one, but the new fangled machinery is no go. The quartz was to have been ground in what resembles a series of spice mills. It wouldn't work. *Enterprise.*

REESE RIVER.

The *Reveille* reports: Hunt's mill, at Indian Springs, will soon be in operation. The Lee mine at San Antonio is being worked steadily, and a large amount of ore has already been taken out; and from the size of the vein and the excellent quality of its mineral, it will easily keep the mill in motion.

ESMERALDA.

From the Aurora *Union*: Mr. Williams, one of tbe fortunate owners of the Diana ledge at Hot Springs, brought in with him on Monday last three hundred and ten pounds of bullion.

A shaft with a large amount of assorted rock in it has lately been discovered on Last Chance Hill. The rock has doubtless been pilfered from the Del Monte mine. There has been a great deal of this kind of business carried on of late. A word to the wise is sufficient.

NORTHERN MINES.

Owyhee.—The *Oregonian* tells us of a ledge called the Rising Star, which surpassing as it does even the Poor Man's ledge, must be acknowledged to eclipse any previous discoveries in all Silver-land. The specimens brought to Portland were fully eighty-five per cent. pure silver. "There is said to he any quantity of the rock in the ledge. It shows tbe character of the ledge very intelligibly. In drilling, the drill passed through solid silver, and the casing shines out as bright as a half-dollar. The same gentleman brings from Owyhee a few diamonds, which will hear inspection."

Rich Discovery in Montana.—The Montana *Democrat*, of January 10th, says that one of the richest discoveries of gold that ever happened in that Territory bas been made near the mouth of Sun river, on the south side of tbe Missouri, and within forty-five miles of Fort Benton. The gulch is very extensive, and the dirt yields twenty-five dollars to the pan. There was a regular stampede from the town of Helena for the new diggings—more than a thousand persons having left, and every horse, pony and wagon at Helena being pressed by the adventurers, who wish to secure claims.

THE ARIZONA MINES.

The *Miner* of January 10tb, says: B. Phelps Esq., of New York, for himself and others, has purchased of Henry Wickenburg, the discovery claim in the Vulture lode, containing three hundred feet, and embracing the most of the chimney of the lode. Report places the sum paid at fifty thousand dollars. Doctor Phelps has a mill on the way here. The Vickroy mill will, it is said, be placed on the Sterling lode. Major General Doubleday, and other prominent gentlemen, are co-operating with the Prescott Consolidated Mining Co., to procure machinery. We hear of several large mills being shipped from San Francisco, for Prescott, and the indications are, that we shall have lively times in the mines during the spring and summer.

BENNETT, of the New York *Herald*, is building a new printing-office on the former site of Barnum's museum. The cellar will be over thirty feet deep, to accommodate the mammoth power-presaes used in printing that paper.

THE people in the vicinity of Havilah, Tulare county, held a meeting on the 14th ult., and passed resolutions in favor of a new county, to be called Kern.

By the new fire alarm system in New York no bells are rung, but each engine company will be informed by telegraph in its own house, of the locality of the fire.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

State and Prospects of Mining at Austin, Reese River.

REPLY TO J. H. ORMTON.

Editors Mining and Scientific Press:—I have just read the communication of Mr. J. H. Ormton, on the *metalliferous* resources of this section, and also the *Reveille's* reply thereto, and am of the opinion that neither has done justice to the subject. There is much truth in some of Mr. Ormton's remarks, and much more that is calculated to mislead. His accusation against the *Reveille*—whether true or false—affects nothing when the merits or demerits of a mining district has to be discussed. The rage of spurious excitement, the wickedness or folly of those by whom it is produced, or the blind infatuation of others who permit themselves to be made the "dupes" of it—"respectfully or combined"—is no valid argument against the resources of any country. It may be proper for me to state at the outset that I do not own a "foot" of mining property in the State of Nevada, nor am I the agent of any mining company, whose property is situate within seventy miles of it. I have no pecuniary interest, "directly or indirectly," in the success or otherwise of these mines. Mr. Ormton's animadversions, "like most others that are intended to make injurious impressions," are characterized more by ambiguity and the absence of candor and truth, than by palpable misrepresentation or falsehood—*i.e.* "hundreds of the so-called mines around Austin are only 'paper-cutter' veins, most of them of no value whatever," nine-tenths of which will never pay for working. I am at a loss to comprehend the significance and propriety of the figure employed "paper cutter," as applied to metalliferous veins; but presume it is intended to represent those that are small, oblique, or transverse.

I agree with Mr. Ormton, that a large number of veins, at and around Austin, as well as in every other section of country, will not, "by" and "of" themselves, pay for a separate and independent working; but this, again, is no valid argument against the value, prospectively or intrinsically, of this or any other district. Let us rather suit our appliances to the dispositions of nature, and the exigencies of circumstances under which we are called to act. The question has not only to be asked, but satisfactorily answered—could or might not the arbitrary arrangement for the development of this mining section be made, in consonance with nature and man's acquired knowledge of some of the operations of her laws, in such a manner that success "amply, remunerative, and satisfactory," would be the result in a large majority of instances? What authority has man to issue his peremptory demands on nature—"ever liberal and generous"—as if she were his slave, and governed by no fixed and immutable laws, but merely subject to and influenced by the presumptuous idiosyncrasies or *ipse dixits* of heedless man, who willingly closes his eyes on stern realities, and pursues the phantoms of idle dreams; or, in other words, choosing darkness in preference to light, and then traduces Nature for not affording him the full benefits of ineffable sunlight?

Either of these positions is equally commendable, and as free from absurdity as the other. The question to be decided in regard to this subject, is as to whether any arrangement or disposition of mining property situate at Austin could be made, independently of an invidious selection, by which capital could be profitably invested; and to this I answer decidedly in the affirmative, and, probably, to an equal extent with any other known section of the Reese River district. That which may operate more effectually than anything else to retard progress, and militate against its immediate prosperity, is the mutilation to which this beautiful and otherwise inviting field for mining enterprise has been subjected. The majority of the lodes are not large, and many of them are, doubtless, mere branches—offsprings—having no independent existence; yet, even these have their important uses, and frequently subserve the most salutary effects on the "parent" or main trunk veins without being intrinsically valuable in themselves, possessing not only relative but corelative functions, which scarcely ever fail to be productive of some beneficial results.

It does not follow that because a certain mercantile establishment is capable of enriching an individual, it could enrich a community of individuals in the same degree. Every one knows—all other things being equal—that in proportion to the increase of participants would be the diminution of individual profits; and further, by extending this view to its legitimate sequence, by supposing that the number of partners multiplied indefinitely, and then deducting the expense of maintenance for each individual member, the probability is it would be a losing instead of a lucrative business. This applies with equal propriety and force to mining as to mercantile pursuits. Illustrations of this kind might be added indefinitely, but they certainly cannot be requisite to procure convictions in the mind of any man possessing common sense.

The capacity of metalliferous veins is limited as well as that of the soil on the surface of the earth, and these limitations or laws cannot be violated without impunity. The mining-ground of Austin-proper is comprised within certain limits—by no means extensive—and is equal, from present appearances, to support and handsomely remunerate a reasonable number of large establishments. It would be the height of folly to presume that every located vein is going to constitute a mine, and no less absurd and presumptuous to affirm that a well-selected series, in the order of nature, would fail to do so.

All that appears to be necessary to insure success to mining at Austin, is a moderate extent of ground to be selected with judgment, and its development prosecuted with judicious economy. The advent, however, of sound practical mining has yet to be inaugurated, so far as my observations have extended, in this part of the country, and not until this has been complied with can its legitimate results be reasonably expected. The country abounds with metallic wealth, but not in such condition that the disciplined energies of practical men may be dispensed with. All that we know, or can possibly acquire by experience from the most unremitting and assiduous practical application, combined with the "derivatives" from arts and sciences, will be requisite to subserve and facilitate the development and subjugation of the great resources of material wealth by which we are surrounded. Nature is, and ever will be, above art and all human experience.

Robt. Knapp.

Austin, 27th January, 1866.

[Written for the Mining and Scientific Press.]

From Our Special Correspondent.

Editors Press:—When I last wrote you, I supposed that I had probably seen as many of the mines of Grass Valley and Nevada as I would be able to do, but owing to the inclemency of the weather, and the badness of the roads, I was detained some days longer in Grass Valley than I had intended, and I improved the time by visiting some of the mines which lack of time had prevented my seeing before. On Monday I visited the

"TOWN TALK,"

Situated about a mile east of Grass Valley, and owned by Mr. T. R. Walker, and some other parties whose names I have forgotten, but all residents of Grass Valley. This is a cement claim, the gold being found in a hard, tenacious gravel, of a bluish or slate color, and which has to be crushed with stamps before it can be washed by the ordinary method. The lead or stratum of paying cement was struck in 1851, and was worked for some time with immense profit; but during the last few years this lead has been frequently lost, involving great expense and trouble. The greatest distance that any tunnel on this claim has been driven into this hill is 800 feet, but the aggregate length of all the tunnels in the claim is, I am told, about two miles. Several quartz ledges have been crossed by this company in the prosecution of their work, one of which is about two feet in width, but as they have not stopped to prospect them, their value is not known. The mill consists of eight heavy stamps with wooden stems, driven by a steam engine of 25 horse power. The cement is crushed to a coarse pulp, and the gold amalgamated in the batteries and in the sluices below.

On the next day I visited this mill and mines of the

FOREST SPRING COMPANY,

Of which Mr. Jno. H. Bayliss is superintendent. The mill was commenced in 1851, and the first crushing was in the spring of 1852. It is a water mill, with ten heavy wooden stamps, capable of crushing fifteen tons in twenty-four hours. The company own three ledges—the Norambagua, the Love Jack, and the Bourbon. The first, which is the most important, and from which the mill is now supplied, is situated near the mill, about four miles south of Grass Valley. It is a north and south ledge, having a dip to the eastward of sixteen degrees. In width it varies from four inches to two and a half feet, its average thickness being about one foot. The ore has paid no average of over eighty dollars per ton. The mine has been opened by an incline to the depth of 500 feet, in which distance two levels are opened, and ninety men employed. A drain tunnel has been commenced, which has now attained a length of 900 feet, and which, when completed, will be 1,000 feet long, and will drain the mine at a depth of 700 feet. A 60-horse engine is used for hoisting and pumping, there being but little of the latter to do, and will probably furnish all the power needed for sinking to a depth of 1,000 feet. The company's claim on this ledge is 4,300 feet in length. On the Lone Jack ledge the company own 1,500 feet, and have sunk to a depth of 500 feet. The ledge is from one to four feet thick, averaging three feet throughout, and the rock is said to pay sixty dollars per ton, though none has been worked lately, as the Norambagua furnishes all that the mill can crush. On the Bourbon ledge this company own 2,000 feet. This has not been opened to any extent, but the croppings are said to prospect well. The adjoining claim is paying well.

On Wednesday morning I embarked in the rain for Colfax. Such a trip I have rarely made, and do not wish to make again. In a constant pouring rain, over roads which swallowed up the coach-wheels to the axle, we plodded on for six mortal hours, arriving at the end of our journey of thirteen miles, to use a Hibernianism, "just in time to be too late," the train with which we should have connected having left at nine in the morning, and we arriving at one in the afternoon. Of course, nobody was to blame; the only wonder being that a coach could get through at all, and that men could be found silly enough to attempt to travel in such weather, and over, or rather *through*, such roads. Our journey was at an end, but the rain was not, and we spent the afternoon drying our garments and cracking jokes to keep up our drooping spirits.

Thursday morning dawned bright and cheerful, and the sharp signal-whistle warned us at half-past six that we must be off. The train consisted of a single "caboose car," with two compartments—one for the passengers and one for the baggage—propelled by a "pony" engine, selected on account of its lightness, the embankments of the road being too soft on account of the rain to bear the weight of a large locomotive. Even this light train proved too much for the road in some places, and what, with various accidents "too numerous to mention," we arrived at the "junction" at half-past one o'clock, having changed cars at Clipper Gap, the track being broken at that place.

Here I left the train, and started on foot across the country for this place, and arrived at the residence of Mr. Jobo P. Layne a little after dark. To-day I went with Mr. L. to look at the various quartz ledges in the neighborhood. The principal of these is the

LAYNE LEDGE,

Situated four and a half miles northeast of Folsom, which is the most thoroughly prospected, and, consequently, best known. The walls of this ledge are granite, its strike or general course being northeast and southwest, with a slight dip to the northwest. The distance between the walls is from six to ten or twelve feet, about two feet in width being solid quartz, which gives by working test from $60 to $200 in gold and silver, the latter predominating, and the remainder of the vein by a kind of brecciated rock, a portion of which is rich in gold and silver. I was shown a letter from a gentleman in San Francisco to one of the owners of the mine living in Sacramento, giving the result of a working test by Mr. Thomas Price of the former city, of a lot of rock which Mr. L. said was below the average of the vein, which paid at the rate of $75 per ton. These statements of the value of the ores from this ledge, with the exception of the last, I give on the authority of Mr. Layne, but the appearance of the rock, and the assays which he has himself made, and which he exhibited to me, are abundant proof that they are not exaggerated. This ledge has been opened to a depth of 100 feet, and has been "sunk on" at various points for a distance of 1,000 feet, showing every indication of a strong permanent ledge.

Five miles northeast from the Layne is the

GOLDEN RULE,

A new location, which has not been so extensively prospected as the Layne, but which shows in the croppings both free gold and metallic silver, and has been opened at various points for a distance of 1,500 feet, showing it to be large and well defined. It runs in the same direction as the Layne, and is believed by Mr. L. to be an extension of that lead.

With thanks to my kind friends at Grass Valley and Nevada for their attentions, and to Mr. Layne for the hospitality which I am now enjoying, I subscribe myself,

Yours wanderingly, D.

Folsom, January 26th, 1866.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

Office of the Mining and Scientific Press—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to the question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the Mining and Scientific Press. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensue. If the application is rejected we cause a thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction, and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain the prospects of success by further efforts, are invited to avail themselves of our unequalled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimensions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary, but it should be sufficient, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first instalment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, and a fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos	$10
On every application for a design, for seven years	15
On every application for a design, for fourteen years	30
On every application for a patent, for seventeen years	15
On every caveat	10
On issuing each original patent	20
On filing a disclaimer	10
On every application for a re-issue	30
On every additional patent granted on a re-issue	30
On every application for an extension	50
On the grant of every extension	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C.	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No. 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER, ... SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER " A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

San Francisco:

Saturday Morning, Feb. 10, 1866.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

SPECIMENS RECEIVED—We acknowledge the receipt of some specimens of steatite and hydrated silicate of magnesia, each carrying coarse gold in considerable quantity. They are from the mines of W. B. Brink, located at Horse Creek, below Drytown. The specimens are very interesting, and well worthy of a careful study and examination, which they will receive. We shall take an early opportunity to report further from them.

Our Stockton correspondent, who recently furnished us a package of specimens for examination, will please excuse our delay in attending to them. We must plead other and pressing engagements; but his request shall be complied with soon. The specimens sent are probably a variety of the mineral known as "turquois," containing a larger quantity of copper than usual. This mineral contains a notable amount of phosphoric acid (PO^5)—from 25 to 40 per cent. of its weight—which is probably the chief cause of the difficulties encountered by our correspondent. We shall endeavor to give it a more thorough examination and report further at an early day.

PETROLEUM.—Mr. J. R. Johnson, of Santa Clara, informs us that they are obtaining a similar class of petroleum-bearing mineral to that described by Prof. Fleury, in a letter which was noticed at considerable length in our issue of December 23d. This substance is found appearing upon the surface, at intervals, for a distance of fifteen miles, commencing at the Santa Clara Works, and extending thence through Pescadero to a point below San Gregasis. Steps are being taken for its thorough exploration. We have been promised a sample of this mineral, from which we may be able to form an approximate judgment with regard to its identity in character with that of such undoubted value found near Mecca, in the State of Ohio, and extending thence over a large tract of country.

GOAT ISLAND, in our harbor, is not as barren as is generally supposed. The Oakland *News* asserts that it possesses several fine springs and much arable soil.

QUARTZ MINING IN IDAHO.

ADVANTAGES OF CALIFORNIA-MADE MACHINERY—IMPORTANCE OF THE NORTHERN TRADE.

Among the passengers for the East, by the steamer, was Mr. William R. De Frees, of Idaho. Mr. De Frees is one of the pioneer quartz miners of that Territory. After a pretty thorough schooling in California and Nevada, he concluded to try a new field, and started for Idaho, where he found the prospects so flattering that in the fall of 1864 he started for the East, *via* San Francisco, to interest some of his friends in the development of his newly found mines. His trip was successful, and in the spring of the succeeding year he left Chicago with a mill, which he took overland to the scene of his proposed operations. Eleven other mills were started out by other parties—all for Idaho. By stint of superior management, or good luck, or both, Mr. De Frees got his machinery through in time to put it up the same season—and he was the only party of the round dozen that did so; the eleven other mills being obliged to lay over the entire winter, did not get into operation until about twelve months after that brought out by Mr. De Frees.

Notwithstanding his good success in this instance, he informs us that he does not intend to try the experiment again; his experience is decidedly against bringing machinery across the plains either for Idaho or Montana. In the first place he prefers to have his machinery made where all the latest improvements can be adapted, up to the latest hour, and by mechanics who are personally conversant with the needs and peculiarities of our mines. No master mechanic who has never visited our mines and personally witnessed the operation of the various kinds of machinery in use there for hoisting, pumping, crushing, amalgamating and concentrating, is competent to design and construct machinery for such work. One of the greatest advantages which California foundrymen and machinists have over those at the East in the construction of such machinery, grows out of the fact that they are personally conversant with the mines and the practical operations of mining machinery. They acquire this familiarity and knowledge by frequent visits to the mines, and a careful examination of the working of their own, and the machinery constructed by others. They are thus enabled to remedy any defect which may be noticed, and are quick to perceive and suggest improvements.

Then again, in furnishing machinery for any point in the State of Nevada, or the Territory of Idaho or Montana, fully one year's time is saved by purchasing here after the machinery is ready to leave the shop, in getting the same to work. For instance, a mill is ordered for either of those places, at a foundry in Chicago and another in San Francisco, each to be ready to start as soon as the roads are favorable in the spring. The one started from Chicago consumes the entire summer in reaching its point of destination; and meets with extraordinary good fortune, if it escapes the necessity of wintering in some valley even short of its destination. The one leaving this city having the advantage of an earlier season, at the place of starting, is able to move out a month or six weeks sooner than its competitor; reaches its destination, is put up and gets well into operation before the other arrives upon the ground; which, when it does arrive there, is compelled, by the severity of the winter in those high latitudes, to remain housed, or perhaps entirely exposed to the weather, until late the next spring. In the meantime, if a good location has been made, the San Francisco mill has half or fully paid for itself.

Both experience and common sense teaches us that San Francisco is altogether preferable to any Eastern city, as a place in which to order machinery for any mines this side of Salt Lake, or even to the westward of the Rocky Mountains.

For the reasons above stated, Mr. De Frees advises those with whom he is associated at the East to send no more machinery overland; and he accordingly expects to have two, if not three more mills awaiting his order in this city, on his return here next spring, which he will take with him to Idaho, to be put up on mines in the southern part of that Territory, not far from where his first mill is at work.

There are now eleven or twelve mills in actual operation in Idaho, and fifteen or sixteen more in process of construction. There will consequently be some twenty-five or eight mills in operation there next spring; which number will in all probability be very materially increased before another winter sets in. This is a pretty good showing for a mining region so newly opened. Twelve of these mills were brought across the plains. Recent accounts from Idaho and Montana are full of promise for the future of those Territories as mining regions. What is now needed are facilities of communication between the mines and this city, which is their natural base for supplies. Great exertions are being made by Eastern merchants to secure this trade, the importance of which, within the next decade, to this city or any other which may secure it, can scarcely be estimated. If the merchants and mechanics of San Francisco allow it to slip from their hands they will lose a golden prize.

MARQUIS' SLOP-HOPPER.—Mr. John Marquis, of this city, has made application, through our Patent Agency, for a new and improved "Slop-Hopper," for sinks, cess-pools and drains, which may be described as follows: An outside cylinder or hopper is placed in the viaduct, inside of which, at the bottom, is a pipe extending upwards, one or more inches, resting upon arms; over this sets a double pan, made by placing a piece of sheet-iron around a disk, forming a bottom and top flange, the lower flange fitting loosely over the pipe, which extends up through the bottom of the hopper; this forms the lower trap, by placing water around the space in the bottom of the hopper. The lower flange of the double pan, dipping into the water similar to that of a gasometer, the water can easily flow out into the drain, but no effluvia can return. At the top of the hopper, which is of greater circumference than the bottom, is placed a sheet of metal, or flange, similar to the above-described, which forms a space between it and the inner periphery of the hopper for water. Another hopper is placed in the one already described, extending downward into the upper bowl of the double pan. The upper portion of this double hopper, as well as the bottom, is perforated, admitting water into the upper and lower traps, thus forming a double-trapped hopper, and doubly guarded against the return of effluvia, while the adjusted hopper affords a trap or receptacle for slops and the accumulating debris, which can be taken out and emptied, without polluting the atmosphere around, as the single or stationary hopper can be used without the adjustable one, and with as safe a guarantee of freedom from bad air.

IMPROVEMENTS IN MOTT'S DOUBLE REVOLVING PLOW.—In a late number of the PRESS we alluded to this truly ingenious piece of mechanism as one of great value to farmers and ranchmen. Mr. Mott, the inventor, has lately made important improvements in the plow by shortening the swivel or connecting rod, also in the manner of constructing the beam with the staging and braces, so as to combine efficiency and strength where great strain will be likely to take place. The improvement also relates to a new device for locking and unlocking, which operation can be performed with ease and dispatch while the team is under headway. A vast number of acres of side-hill land are now lying idle for want of a proper implement with which to penetrate the soil sufficiently deep for good cultivation—and turn the furrows all in the same direction or down hill. Heretofore side-hill plows have been cumbersome and unwieldy, and as difficult to manage and draw as a piece of ordnance with caisson attached, but Mr. Mott's improved plan combines lightness with strength and easy draft, and we predict that by its use many a rood of untilled soil will be made to yield its increase. Mr. Mott has made application for letters patent through our Patent Agency.

A WASHOE CONCENTRATOR.—Mr. Edwards has exhibited, at the Gould & Curry works, a new concentrator, which is described by the Gold Hill *News* as follows: The tailings are fed into a large, shallow wooden bowl, which has a motion imparted to it something like that given by Mexicans to their wooden prospecting bowls. In machines for actual working this bowl will be some seven feet in diameter, and will be lined with sheet copper, coated with mercury. In the centre of the bowl is a hole, regulated by a gate or slide, through which the sulphurets and quicksilver will be discharged into a proper receptable placed below. It is calculated that one machine will work ten tons of tailings per day—reducing the ten tons to about one ton. Whatever gold, silver or amalgam may be contained in the tailings will be caught and saved on the copper lining of the bowl, which can be cleaned off from time to time, while the sulphurets, not being capable of being thus retained, will be driven to the center of the bowl, and then passing through the opening in the center, saved as above described. The machinery by which the peculiar "pauning" motion is imparted to the bowl is most ingenious. The tailings are fed into the bowl in such a manner that they always fall upon the edge of the bowl, which is most elevated whatever way it may turn.

THE MEMORIAL.—We lay before our readers to-day "*The Memorial of the Miners of California*" to the President and Congress of the United States. It is an able document, well worthy of its authorship and the parentage of the five hundred members assembled in Convention, as well as the commendation of the thousands of earnest miners throughout the coast who will heartily indorse its sentiments. Considering the importance of having the memorial placed on record in our files, we have given it the first full publication in San Francisco, to the exclusion of other valuable matter already prepared for our columns.

MECHANICS' INSTITUTE.—The annual meeting of this society, held on Thursday of last week, was well attended. Annual reports were received from the several Committees, which were read and referred to the Board of Directors. Committee on the framing of a new Constitution, were discharged, by request. The Committee for securing a proper building lot for the association reported progress and were granted further time. The Treasurer reported some over $8,000 in the treasury and on loans. In accordance with the usual custom, a Committee was appointed to nominate officers for the approaching year, said committee to report at an adjourned meeting to be held on Thursday evening next, February 15th. We hope a full attendance will be had and a good ticket nominated. The election occurs on Tuesday, March 6th.

CORRESPONDENCE.—We have received several valuable communications this week, which will receive attention as soon as the crowded state of our file will permit. Among others, we may mention a valuable paper from Prof. Rowlandson, "Notes on the Chief Gold Districts throughout the World;" "The Tractory Curve and the Properties of Grinding Plates," apparently an able and well written article, by W. A. Goodyear, M. E.; "Gold-Bearing Sulphurets and their Reduction," by John Scott; "Yuba County Mines," by M.; "Resources of Siskiyou County," by Prof. G. K. Godfrey.

CITY COLLEGE—METALLURGICAL BRANCH.—This College has wisely adopted a new branch of instruction, as will be observed by advertisement in this issue of our paper. The services of Mr. Thomas Price have fortunately been secured to the enterprise, as Professor of Chemistry. We shall make further mention of this subject.

PUBLIC SCHOOL LIBRARIES.—A bill recently introduced in the State Senate, by Mr. Hunt, of Santa Clara, provides that $10 per annum shall be set apart for every district by the County Superintendents, provided a like amount be subscribed by the residents of the district, for the purpose of securing a library.

[Written for the Mining and Scientific Press.]

Roasting of Sulphurets.

Messrs. Editors:—Observing an article on this interesting subject from the pen of Mr. J. Mosheimer, in a morning paper of this city, in which he extols a process of his own, at the same time asserting that no other exists which will answer the purpose as well, it may interest the public to be informed that a cheap and effectual process *does* exist, and that furnaces *can* be constructed cheaply for the purpose set forth, without the necessity of our miners entering into the manufacture of crude sulphur and bisulphide of carbon, which are comparatively valueless in this market, as Mr. Mosheimer admits. I do not care to point out the defects which most certainly exist in Mr. Mosheimer's plan, my object being rather to present in a favorable light the superior claims of a discovery, made by Mr. J. A. Peer and myself, of an easy method of reduction for sulphurets of all descriptions. The necessary papers have been filed in the Patent Office for this invention, and it will be set in operation immediately.

This discovery may be briefly described as follows: A square brick furnace is erected, with the ordinary square fire-box in the same, and two small semi-circular boilers are so placed in the fire-box as to leave a space between them for the passage of the entire heat upwards to the hearth, around which the flumes pass. Two steam-drums are placed in the brick-work above the boilers, which furnish sufficient steam to run any quantity of machinery desired, as well as for the use in the furnace which shall be described presently. The hearth of the furnace, the most important part of the invention, is constructed either of soap-stone or fire-clay tiles, and is inclosed on all sides except the top, so as to prevent either the draft or flame coming in contact with the ore heaped up on its surface. The sulphurets are mixed with a definite quantity of powdered charcoal and fine salt, and well moistened with water, and are then packed closely upon this hearth to the depth of from eight to twelve inches, according to the capacity of the fire box for fuel. The mass is suffered to lie undisturbed for from three to five hours, when steam is injected under the ore by means of a series of small pipes supplied from main pipes connected with the steam-drums. No attention is necessary except to keep the temperature of the mass at a red heat for at least three hours, when the steam is let on for twenty minutes to force out what sulphur may remain, and complete the oxidation of the particles of iron. Stirring is unnecessary; in fact, it would be fatal to the operation. A high arch is constructed above the hearth, of sufficient area to allow of the expansion and free passage of the gases arising from the hearth. The flues from the fire-box also pass into this arch, and the draft carries off all the fumes as soon as they have risen to a proper distance from the mass of ore. No particles of mineral matter, be they light or otherwise, can rise from the hearth, because there is no current to carry them up. The heat is never raised so high as to volatilize even silver. And even if this should be the case, we are provided with a condenser of an improved construction, which will condense and precipitate all metallic fumes into a receiver, where they may be collected and saved. Charcoal is used for fuel, because it is the cheapest, giving out the most heat in a specified time, and is without the dense fumes and flames that accompany other species of fuel. Where steam can be had from boilers already erected, the furnace may be built without them, and supplied by a connection with the exhaust-pipe or any other.

This furnace is built with doors at each end for both fuel and ore, so that, for a hearth of the length of ten feet, there is but five feet distance to work upon. The mass of ore, when the oxidation is complete, is raked into a chute and conveyed into the pan for amalgamation. Another batch may then be placed upon the hearth in the same manner. The hearth may be built of any size, to hold a ton or more, without enlarging the fire-box to more than nine square feet, and by extending the flues. As an economical and sure method of roasting sulphurets, this furnace process meets the approbation of all *practically* scientific men who have examined it and tested its merits. To the impracticable theorist it can of course only be a wonder, which it were a waste of time to explain. A few words, however, may not be amiss in illustration of the philosophy of this discovery. The sulphurets being intimately mixed with powdered charcoal, the sulphur combines with it in a great measure, and is consumed with it and passes off in its fumes. Just sufficient salt is used to assist in disengaging the sulphur from the ore, but not enough to form a chloride with the gold or silver. The decomposition of the water in the mass allows the hydrogen to combine with a portion of the sulphur, and this, being light, rises into the current and is carried off through the chimney. Raw steam injected through the mass soon becomes superheated and decomposes, and the oxygen combines with the iron while the hydrogen carries off what sulphur may still linger in the heap. The burning of the powdered charcoal leaves the mass porous and permeable by the injected steam, so that every particle of the ore receives the benefit of it. The most refractory ores of all descriptions may be treated in this way. Neither arsenical nor antimonial ores can resist this treatment. They only require a little longer time than ordinary sulphurets. Drawings and an experimental furnace, with some of the results of operations with the same, may be seen on application to J. A. Peer, at the Fulton Foundry. As soon as a model of this useful invention can be completed, we will furnish you with an engraved illustration of the same for the benefit of your readers,

W. H. Manning.

[Written for the Mining and Scientific Press.]

Letter from J. H. Ormton.

We have before us a letter, dated Austin Nevada, January 30th, from "J. H. O.," in reply to the Reese River *Reveille's* attack upon him and his former article. It is ably written, spicy, and equal to his subject, but as it is out of the line of this journal to insert personalities (especially over an assumed name), we deem it just to quote only the most argumentative portion of the letter:

* * * * *

But seriously, all I have got to do is to treat of the facts of the case between the *Reveille* and myself touching the mills and mines around Austin.

I stated that, in connection with the Reese River district, there were over 250 stamps, either ready to work or being made ready, and the *Reveille* affirmed, in reply, that there would not be 150 when all the mills were completed. I give you a list of our mills:

Mills.		*Stamps.*
Confidence,	Yankee Blade	10
Empire,	do.	20
Mohcom,	do.	20
Midas,	do.	15
Butte,	do.	8
Keystone,	do.	20
Austin and Colfax,	do.	20
Silver Hill,	Austin	5
Manhattan,	do.	30
Boston,	do.	20
Ward,	do.	5
California,	do.	10
Union,	do.	10
Hildreth,	do.	5
Pioneer,	do.	20
Clifton,	do.	4
Parrott,	Big Creek	16
Phelps,	do.	10
Eureka,	do.	10
Lippett,	do.	5
Total		263

If the writer in the *Reveille* does not know how many stamps he has got around his quarters, the foregoing list will be of value to him, for it is certainly within ten or fifteen stamps of being correct. * * * *

J. H. Ormton.

The New Granada Mines.—We have little reliable information from the Barbacoas mines, New Granada, which, at present, are engrossing the attention of the more excitable portion of our community. The district is located seventy-five or a hundred miles inland from Tomaco, which port is situated about four hundred miles from Panama. Our best authorities agree that the mines there have been operated on for years, that they are located in an unhealthy climate, and are only to be developed under many disadvantages. Whenever we can command any facts of real value to the readers of the Press, concerning this district, we shall not hesitate to bring them forward.

Next to the Oldest.—The Mountain *Democrat*, published at Placerville, has entered upon the thirteen year of its existence. With the exception of the Calaveras *Chronicle*, it is said to be the oldest paper in the State.

Real Del Monte.—This famous mine and works were recently sold at auction, for the taxes of 1864, amounting to $608.01, to A. Gamble. There is no provision for redemption in the Nevada laws, in such cases.

1852. 1866

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The Golden Era.—We would call the attention of all newly-arrived Californians to this excellent weekly cotemporary. We have seen the Era so frequently at the family fireside, and in the rude cabins of many industrious miners, that it would seem superfluous to recommend it to old Californians. It is the oldest literary journal on the coast. [S. F. Mining and Scientific Press.

The Golden Era, which has just entered upon its fourteenth volume, is fully entitled to be considered as the literary paper of the Pacific coast. Its proprietors understand the wants of the community, and furnish their readers with all the popular works of fiction as fast as the proof-sheets are received from the Eastern States and Europe, and with a greater variety of original matter in the line of light literature, than can be found in any similar paper on the continent.—[S. F. Alta Californian.

The Golden Era has entered upon its fourteenth year of publication. How many competitors for public favor have been started during this time, and not possessing the freshness and originality of the Golden Era, have struggled through a short, sickly existence—at last to "flicker out"—almost unnoticed. No single paper in the State is more read and admired, and friends in the States appreciate it fully as highly as the thousands here who weekly scan its columns. It is no copyist, being in all its main features Californian, and unlike the "story papers" in general, its contents are interesting to all who take an interest in the literature of this coast.—[Napa Reporter.

The Golden Era, as a good family paper, as a literary production, cannot be surpassed within the limits of America, and America beats the world in publication of first-rate literary papers. It is filled to overflowing with excellent reading matter, original and selected prose and poetry. It is now publishing, from advance sheets furnished from New York, two very interesting stories, each chapter of which is alone worth the subscription price of the Golden Era.—[Folsom Telegraph.

The Golden Era is decidedly the best journal of the kind on this coast, and, we had almost said, in the United States. It is prepared with great care and labor, and publishes an immense amount of reading matter. The serial stories of the best authors are printed in its columns, and its local gossip is always pungent, racy and instructive.—[S. F. Examiner.

The Golden Era is one of the best journals of its class in the whole country, and is carefully and intelligently conducted.—[S. F. American Flag.

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The Golden Era is decidedly the best family paper published in the State and we are pleased to learn that it is in a flourishing condition.—[Sacramento Bee.

The Golden Era, as a strictly literary and news paper, is chief among the best. Its correspondence and editorials are of that originality of style so peculiar to this coast.—[Oregon Sentinel.

The Golden Era is the best literary paper published on this coast. It abounds in stories both real and fictitious, which are worth a careful perusal by every one.—[Santa Cruz Sentinel.

The Golden Era is as good a literary paper as can be procured on the continent.—[Red Bluff Independent.

The Golden Era has entered upon its fourteenth volume. It is by far the best literary and family paper ever published on this coast.—[Sonoma Democrat.

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The Golden Era is a fine family and literary paper, as the broad Union may where can boast of.—[Denver Rocky Mountain News.

The Golden Era is the best family journal in the United States.—[Salt Lake City Telegraph.

The Golden Era is a highly handsome quarto of fifty-six columns, comprising the freshest and the richest cream of American belles lettres. Nothing north or south, or east or west, can be compared to it as an elegant family and literary newspaper.—[Union Vedette, Salt Lake City.

The Golden Era, instead of economizing during these dull times and presenting a paper to match the times, is as brilliant as ever. It has a talented corps of literateurs, and keeps fully up to the mark.—[S. F. Dramatic Chron.

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The Golden Era began in the infancy of the State, and has grown with it, until there is now hardly a post office in the State, or on this coast, where it is not taken. It employs the best writers in the Atlantic States, in Europe, and in California.—[Colusa Sun.

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Or at 406 California Street.

6v12tf

OUR NEW YORK AGENCY.

Mr. Geo. M Newton is our authorized agent in New York City, and will receive advertisements and subscriptions for the Mining and Scientific Press at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "Stockholder," No. 72 William street.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the Mining and Scientific Press, in San Francisco, and to receipt for the same.

All the mining county papers are building largely on a long and prosperous working season, because of the vast amount of snow on the mountains. The fall of snow this year is unprecedented since 1852.

New Factory.—Work has been commenced in the new tub and pail factory just completed by Messrs. Elam & Howes, on Main street, near Market.

The Trinity *Journal* says it is estimated that in the mountain gorges running from the Weaverville Basin to the summit of "Old Bally," the snow is from ten to twenty-five feet deep.

The *Sentinel* learns that a planing and turning mill is about to be erected at Santa Cruz.

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San Francisco, Oct. 12, 1865 .5v11tf

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Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done.
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Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. The Mining and Scientific Press Patent Agency has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

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Volume Twelfth.—The Mining and Scientific Press, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

It is proposed to propel the street cars on the Albany and West Troy track by the use of compressed air, to be supplied to a reservoir in each car from a great reservoir at each terminus. It is said that a car can carry enough compressed air to move it ten miles at a proper rate of speed, and that it can be run at a cost of $2.50 per day.

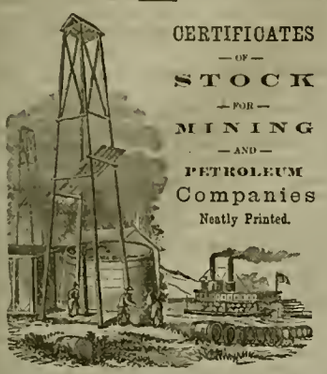
Santa Cruz Railroad.—An estimate made and published in the *Sentinel*, shows that thirty-one miles will connect Santa Cruz with the San Jose Railroad, and that the work can be done for $763,043.

Ripe olives were on the trees at Santa Cruz, while deep snow covered the mountains not two miles distant.

Mining and Scientific Press

JOB PRINTING OFFICE,

No. 505 Clay street, corner of Sansome.



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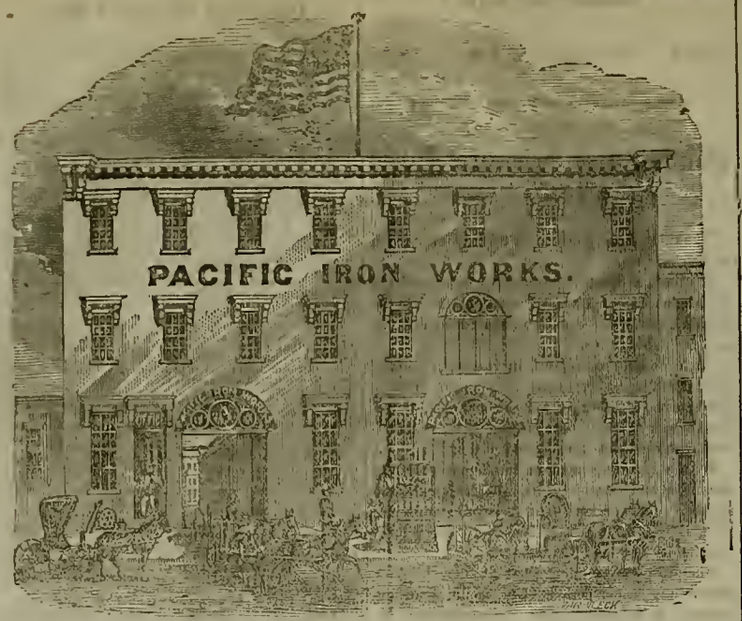

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The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

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Vulcan Iron Works Company

[ESTABLISHED 1850.]

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Steam Engine and Locomotive

BUILDERS,

Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. These facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

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Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR
BEATH'S AMALGAMATOR;
HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;
BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;
FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;
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LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

Miners' Foundry

— AND —

MACHINE WORKS,

First St., between Howard and Folsom Streets,

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EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

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Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

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THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.

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Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

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Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's Improved Traelery Curve Pan, Zeuss Wheeler's improved flat bottom pan, Beldin's pan, Veatch's tubs, Prater's concentrators, Wakice's pans, Boers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.

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GALLAGHER & WEED,

BRASS AND BELL FOUNDRY

And Lock Factory.

ALL KINDS OF BRASS AND COMPOSITION CASTINGS AND FINISHING DONE WITH NEATNESS AND DISPATCH.

CHURCH AND STEAMBOAT BELLS, OF ALL SIZES, made to order. Engineers' Gongs made and hung in the best manner. Bank, Vault, Store and Prison Locks; also Brass Padlocks and Shop Locks of various patterns, on hand and made to order.

☞Particular attention given to casting Rudder Braces and Ship Work in general.

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N. B.—All kinds of Boiler and Sheet Iron Work executed at the shortest notice, and on the most reasonable terms.

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Nos. 19, 21, 23 and 25 First Street,

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MANUFACTURE ALL KINDS OF

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STEAM ENGINES AND QUARTZ MILLS

DUNBAR'S IMPROVED

Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S

NEW GRINDER AND AMALGAMATOR,

HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

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Foundry and Iron Works.

HINCKLEY & CO.,

MANUFACTURERS OF

STEAM ENGINES,

Quartz, Flour and Saw Mills,

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Foundry and Machine Works,

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Manufacturers of

Marine and Stationary Engines

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Salmen's Patent Amalgamator and Separator; Wheeler & Randall's New Grinder and Separator; Baux & Guiod's Amalgamator and Separator; W. W. Tupper's Patent Sectional Grate Bar; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston-Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

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Bought, sold, or exchanged. Bolt Cutting and Castings, at the lowest market rates.

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Novelty Iron Works,

Steam Engine, Boiler and Machine Shops.

STEAM ENGINES AND BOILERS, OF ALL KINDS, ON hand and Made to Order. Quartz, Saw and Flour Mills, and all other kinds of Machinery, made to order, bought, sold or exchanged.

Reynolds' Variable Cut-Off Saves from 25 to 60 per cent. of Fuel.

WINANS' ANTI-INCRUSTATION POWDER for Steam Boilers, a *SURE REMEDY*. Send for a Circular.

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SAN FRANCISCO 21v9lfo

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COPPERSMITH,

No. 236 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to. 13v11

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest-size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the Mining and Scientific Press. ¢ 19v11tf

STOCKS IMPROVING.—By reference to the Weekly Stock Circular upon another page, it will be observed that mining shares generally are improving. A recent good strike in the Hale & Nocross seems to have had the effect to vitalize the market. The Virginia *Enterprise* gives us the following intelligence concerning the present condition of the Hale & Norcross mine: At the point where the much talked of strike has been made, we found a number of miners at work taking out ore. This spot is about 700 feet below the surface, and is nearly 200 feet lower than the Comstock vein has ever yet been tapped. The vein or deposit of ore is from fifteen to sixteen feet in width, with clay walls on both sides. All the rock between these walls is taken out for working. It will probably average $60 or $70 per ton, though assays showing the ore to go far above these figures have been made. There is a little black sulphuret ore in the deposit; it is principally chloride ore and has a greenish tinge in the walls of the mine or when fresh dug. The vein has been explored lengthwise for a distance of about sixty feet, and has been worked upward but one floor above the level of the car track. The deposit appears to widen as it is followed northward. About thirty tons of ore are taken out per day, but in a few days when room is made, more men will be set to work and about fifty tons per day will be taken out. That this will prove an extensive and lasting deposit is shown, we think by its being encased in well defined clay walls. Had it occurred in the mass of vein-stone without any particular houuds, we should be inclined to consider it a mere accidental hunch, liable to be lost when followed in any direction. The finding of so large and rich a deposit of ore at this depth is most encouraging to all companies engaged in working claims upon the Comstock lead. The works are perfectly dry at the point we have been speaking of, and the chances are that the company might even go much lower and not be trouhled with water.

QUARTZ OPERATOR'S

HAND BOOK.

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,

Authors and Publishers.

BOUND IN CLOTH—144 PAGES, DUODEIMO.

THE QUARTZ OPERATOR'S HAND BOOK is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals, an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner.

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In the preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable QUARTZ MINER'S HAND BOOK.

The Table of Contents of this book will be found on page 415 of the MINING AND SCIENTIFIC PRESS of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11

PREMIUMS.

1st Premium, at Sacramento Fair.....1862

1st Premium, at S. F. Bay District....1862

1st Premium at Sacramento.....1863

1st Premium, at San Francisco.....1864

1st Premium, for Cordials.....1864

1st Premium, for Hygienic Bitters....1864

Awarded to

V. SQUARZA.

OFFICE OF THE COUNTY CLERK OF THE CITY AND County of San Francisco, State of California.—In County Court.

In the matter of the application of LA MORRONENA SILVER MINING COMPANY, for Order of Dissolution.

Notice is hereby given, pursuant to law and an order of the Hon. SAMUEL COWLES, County Judge of said City and County, this day made, that La Morronena Silver Mining Company, a corporation duly organized and doing business in said City and County, has made application, by petition duly filed, that said Company be disincorporated and dissolved, and that said application will be heard by and before the Hon. SAMUEL COWLES, County Judge aforesaid, on the seventeenth day of February, A. D. 1866, at 10 o'clock A. M., in the Court Room of said County Court, in the City Hall Building of said City and County.

Witness my hand and the Seal of said County Court, this eighteenth day of January, 1866.

(Seal and U. S. Rev.) WM. LOEWY, County Clerk.
(Stamp, 50c, canceled.) By J. NAPHTALY, Dep. Co Clerk.
3v12-4w

Subscribe Now!

1866 JANUARY 1st, 1866

Commencement of Twelfth Volume

—OF THE—

Mining and Scientific Press

Published Every Saturday.

The title of our journal is a truthful expression of its character.

It affords a class of progressive information to the Miners, Mechanics and Professional Men of the Pacific Coast, which cannot be derived from books, or other publications.

Each Volume comprises, in reality, a book of new intelligence and facts relating to Mining, Mechanism, Metallurgy, Science and Art, developed by our rich and peculiar resources, and identical with our own industry and history.

By the encouragement of intelligent economy in LABOR and GOLD-SAVING, we shall make the PRESS a source of INDIVIDUAL PROFIT to its patrons, as well as a public benefit to every local community in which it circulates.

The prospects of our journal are now brighter than at any former period. Our facilities for furnishing a valuable paper are constantly increasing.

Following are some of the many opinions generously expressed by our neighbors:

Editorial Expressions:

The publishers intend to make it the "Scientific American" of the Pacific Coast. Every miner should have a copy of it in his cabin, for it will be filled with useful information for the pick and shovel fraternity.—[Trinity Journal.

Should be taken by every man owning "feet" [and brains] in this State.—[Beacon.

In no other ten journals can the reader find the same amount of reliable mining news as in the PRESS.—[Contra Costa Gazette.

Every stockholder in different mines will find it will pay to take and read this mining journal.—[Contra Costa Gazette.

The PRESS is to the Pacific Coast what the "Scientific American" is on the Atlantic. It deserves its success.—[Aurora Daily Times.

It is fully up to the times, and furnishes the latest mining improvements and intelligence.—[Calaveras Chronicle.

Every miner should subscribe for the PRESS.—[Calaveras Chronicle.

It presents a channel through which all mining notices may be cheaply consolidated into one sheet for the convenience of all stockholders.—[Mountain Messenger.

We can give our testimony that it is always replete with useful and valuable information to miners and mechanics. [Placer Herald.

It contains correspondence from different sections, giving accounts of new discoveries in gold, silver and copper, and should be taken by every person that wishes to keep well posted on the developments of our State and the Territories.—[Mountain Messenger.

With the last number is an index to the whole volume, most useful and valuable to those who keep files of that paper.—[Shasta Courier.

Prof. J. D. Whitney's address on Mining, is given entire. * * * We preserve the PRESS, and would like to have a full file.—[Napa Reporter.

The public should support the enterprise of the MINING PRESS, one of the best papers in the State, by a liberal patronage, as it is only by a system of legitimate reports that our mines can be favorably brought before men of capital below.—[Calaveras Chronicle.

Under the management of Messrs. Dewey & Co., the PRESS has been much improved in every respect. * * It deserves a liberal support.—[Virginia Union.

A good paper for this country.—[Humboldt Register, Ne.

Those who would have a good paper of this character, should subscribe now.—[Marysville Appeal.

It embraces one of the finest fields in the world, and seems to improve it. * * * It will be second to no scientific record now published on this continent.—[Los Angeles News.

A neat and useful journal. One of the most presentable and useful in the State.—[Sunday Mercury.

Such a journal has been needed on the Pacific Coast. The PRESS fills the bill.—[Reese River Reveille.

A splendid paper, and should have a good list of subscribers in prosperous Grass Valley.—[G. V. National.

We receive, regularly as clock work, this exceedingly valuable and interesting journal.—[Napa Reporter.

Interesting and important to miners and Mountain men. [Butte Record.

Friends pleased with our efforts in the publication of the PRESS can render us essential aid by furnishing correspondence and all important information which may come under their observation, and by calling the attention of their neighbors to the commendable features of the paper; the appreciation of which favors will be duly manifested by the constant improvement of our journal.

Specimen copies will be sent free to those desiring to examine the paper before subscribing. Postmasters, Express Agents and News-dealers, acting as our agents, will receive liberal commissions.

SUBSCRIPTION IN ADVANCE.

One Year, (two volumes)..... $5.00
Six Months, (one volume)..... 3.00

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OFFICE—No. 505 Clay street, corner of Sansome.

DEWEY & CO., Publishers.

W. M. SMITH .....W. S. EWER. .....A. T. DEWEY.

Oakland Water-Cure.

APRIL 1ST, 1864, WE OPENED A HYGIENIC BOARDING House and Ladies' Health Institute in Oakland. The great advantage we have experienced since that time, in the treatment and cure of all those diseases peculiar to females, as well as those common to all, over that of San Francisco, induced us to give up the treatment of gentlemen in the city. We have accordingly removed our entire Bathing, Electro-magnetic, and Gymnastic Apparatus, which we used especially in the treatment of males, to our Health Institute across the Bay, and have found, after a trial of seven months, that gentlemen as well as lady patients recover, at our Fountain Farm Cure, one-third faster than in the city of San Francisco. The climate here is the most even and bracing to be found in the State. The grounds command a view unsurpassed in the world. The institution is furnished with an abundance of pure, soft water, from numerous springs; and we now offer to Ministers, Teachers, Lawyers, Miners, Merchants, Mechanics, Farmers, and all other worthy persons, who desire to try the advantage of the only *rational* system of medicine, the hospitalities of our Hygienic Home and Cure. Young men who have become debilitated or lost their health by excessive toil, exposure, or enervating habits, contracted through ignorance of its consequences, may withal find more of the encouragements they need, and means that will restore them to health, than elsewhere in California.

We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that it is followed by none of those debilitating diseases, such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, Intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Urethal Strictures, etc., which we well know result from the free use of mercury and other metallic drugs, together with stimulants and vegetable poisons given to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in its facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any like establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douch Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to miners, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Neuralgia, Lead, and Oak Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have yet used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, referring to metals, the miasma of rivers and low marshy grounds. Where there was a fair constitution left, even when drugs had been applied for months and years without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflammatory and Mercurial Rheumatism; Paralysis; Lung, Bronchial and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Erysipelas, Scrofula, Piles, Inflammation of the Bowels, Chronic and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is so favorably situated to furnish so many home comforts and hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only truly healthful boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the medication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in this bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institutions, (both in Sacramento and San Francisco) has induced us to make this class of human afflictions a specialty of our Institution. We have treated (mostly in the cure), over 300 females, several of whom had been "bedridden" for months and years, and all have been decidedly benefited, and with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

There is not one female invalid in twenty that has been suffering from nervous debility or diseases peculiar to her sex, that cannot be permanently cured in a spring term from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn of a single regret from husband or friend of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has labored successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo-Therapeutic College.

To all whom it may concern:

I have known Dr. Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as an honest, faithful delineator of character, and as such can cheerfully recommend him to the public.

For the good of Science.

L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

BARLOW J. SMITH, M. D.,
20v11tf San Francisco, Box 473.

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Providence Gold and Silver Mining Company, Nevada District, Nevada County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of February, 1866, an assessment of one ($1) dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco. feb10

Southern Light Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of February, 1866, an assessment (No. 8) of twelve dollars and fifty cents ($12.50) per share was levied upon the capital stock of said Company, payable immediately, in United States gold or silver coin, to the Secretary, at his office, No. 228 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 10th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 26th day of March, 1866, at 3 o'clock, P. M., to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

E. J. DRINKHOUSE, Secretary.

Office, No. 228 Front street, San Francisco, Cal. feb10-4w

United States Mining Company.—Location: Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of February, 1866, an assessment of fifty (50) cents per share was levied on each and every share of the capital stock of said company, payable immediately, in gold or silver coin of the United States, to the Secretary, at his office, or to F. A. MARSTON, Virginia, Nevada.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised as delinquent, and unless paid, will be sold on Saturday, the 31st day of March, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. feb10

Mining Notices—Continued.

New Mining Advertisements to be found under another heading.

Animas Silver Mining Company, Ventenas, Durango, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 30th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Lansing Haight	55, 57, 59, 60	97	$38 80
	52, 53	155	62 00
Edwards Woodruff	5	50	20 00
Mrs. Caroline E Woodruff	106	150	50 00
Jerry Parsons	84	100	40 00
J Fillebrown	828	50	20 00
P Decker	48	50	20 00
B Bigelow	95	50	20 00
W C Belcher	85	10	4 00

And in accordance with law, and an order of the Board of Trustees, made on the 30th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Secretary Pro tem., THOMAS HILL, 522 Montgomery street, on the 19th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

feb3 THOMAS HILL, Secretary Pro tem.

Blue Ledge Gold and Silver Mining Company, Lander County Nevada.

NOTICE.—There are delinquent upon the following described Stock, on account of Assessment levied on the 2d day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Aron, Jos	96	1	$1 00
Aron, Simon	118	1	1 00
Abrams, M	220	1	1 00
Beer, Julius	12	10	10 00
Beer, Julius	95	1	1 00
Beer, Julius	104	7½	7 50
Beer, Julius	106	15	15 00
Beer, Julius	120	5½	5 50
Bachman, D	221	1	1 00
Biddleman, E J	191	7	7 00
Cutter, H F	208	8	8 00
Cutter, H F	231	67	67 00
Cohn, G	61	5	5 00
Francis, D B	3	5	5 00
Frank, J	222	1	1 00
Creene, S H	223	1	1 00
Heath, R W	216	34½	34 50
Harrington, W C	2 4	1	1 00
Haas, Solomon	129	5	5 00
Light, C H	187	4¼	4 25
Levy, Isaac	225	2	2 00
Meyerield, M	226	2	2 00
Perley, D W	19	20	20 00
Perley, D W	20	20	20 00
Perley, D W	23	10	10 00
Perley, D W	25	5	5 00
Perley, D W	26	5	5 00
Smith, A N	227	5	5 00
Strauss, Emanuel	105	5	5 00
Strauss, Emanuel	116	5	5 00
Scott, H	217	138	138 00
Weusinger, F S	228	3	3 00
Woodleaf, H	229	1	1 00
Waterman, E R	156	2	2 00
Watriss, Geo E	207	34 13-16	34 82

And in accordance with law, and an order of the Board of Trustees, made on the 2d day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, by Jones & Bendixen, auctioneers, on the 20th day of February, 1865, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. feb3

Consolidated Silver Hill Mining Company.— Location of Works: Esmeralda District, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of January, A. D. 1866, an assessment of two dollars ($2) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, Room No. 15 Government House, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 10th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 21st day of February, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

jan13 JOHN J. MACKENZIE, Secretary.

POSTPONEMENT.—The advertisement of stock delinquent on the above assessment is hereby postponed until Saturday, the 17th day of February, 1866, and the sale thereof until Saturday, March, 3d, 1866. By order of the Board of Trustees.

feb10 JOHN J. MACKENZIE, Secretary.

Diana Gold and Silver Mining Company,
Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 21st day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount
Allen, H H	236	3	$ 30 00
Allen, H H	271	46¾	465 00
Allman, John	304	7	70 00
Allman, John	305	6	60 00
Bradley, H W	289	11	110 00
Bateman, I C	211	4	40 00
Bateman, I C	268	120	1200 00
Billeman, E J	308	5	50 00
Billeman, E J	309	4¼	43 75
Billeman, E J	312	9	90 00
Billeman, E J	320	15	150 00
Cutter, H F	14	21	210 00
Cutter, H F	200	5	50 00
Cutter, H F	248	10	100 00
Camp, James	143	10	100 00
Crockett, Geo W H	244	5	50 00
Brickhouse, J A	318	25	250 00
Dawley, Jas M & Co	101	5	50 00
Dawley, Jas M & Co	102	5	50 00
Dawley Jas M & Co	164	10	100 00
Detrick, E	255	3	30 00
Francis, D B	34	3	30 00
Francis, B B	62	10	100 00
Frazee, C D	224	20	200 00
Greene, S H	7	12	120 00
Greene, S H	269	13½	135 00
Harrington, W C	290	5	50 00
Harrington, W C	291	10	100 00
Harrington, W C	292	10	100 00
Harrington, W C	293	10	100 00
Harrington, W C	294	10	100 00
Harrington, W C	295	10	100 00
Harrington, W C	296	10	100 00
Harrington, W C	297	10	100 00
Harrington, W C	298	10	100 00
Harrington, W C	299	10	100 00
Harrington, W C	300	10	100 00
Harrington, W C	301	10	100 00
Harrington, W C	302	10	100 00
Harrington, W C	303	10	100 00
Hardy, Jas H	278	5	50 00
Hastings, John	214	10	100 00
Hastings, John	242	5	50 00
Hastings, John	246	5	50 00
Light, C H	2	6¼	62 50
Lander, P G	270	14	140 00
Ladd, C J	115	10	100 00
Miller, Albert	319	20	200 00
Neyman, H J	86	10	100 00
Neyman, H J	105	25	250 00
McDaniel, D	61	2	20 00
O'Neil, A E	215	20	200 00
Perley, D W	180	20	200 00
Perley, D W	181	10	100 00
Perley, D W	182	10	100 00
Perley, D W	183	8¾	87 50
Perkins, A B	220	8	80 00
Pridham, Wm	223	5	50 00
Sharp, Geo F	52	4	40 00
Turner, Anna K	35	2	20 00
Warren, O P	251	22	220 00
Williams, J J	142	2	20 00
Welch, G W	206	10	100 00

And in accordance with law and an order of the Board of Trustees, made on the 21st day of December, 1855, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, by Jones & Bendixen, on the 6th day of February, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

POSTPONEMENT.—The above sale is postponed until Friday, the 16th day of February, 1866, at the same hour and place. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. jan20

Evoca Consolidated Copper Mining Company,
Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 31st day of January, 1866, an assessment of twenty-five (25) cents per share was levied upon the assessable capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, at No. 537 Washington street, room No. 3, in the City and County of San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

CHARLES E. ABBOT, Secretary.

Office, 537 Washington street, Room 3, San Francisco, Cal. feb3

Great Western Tunnel and Mining Company—Location of Works: Aurora, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 28th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Charles Rohrle	327	100	$10 00
Charles Rohrle	324	150	15 00
Charles Rohrle	325	150	15 00
Charles Rohrle	326	100	10 00
Charles Rowell	223	25	2 50
Charles Rowell	224	25	2 50
Charles Rowell	258	22	2 20
Charles Rowell	291	100	10 00
Charles Rowell	292	100	10 00
Charles Rowell	293	40	4 00
Charles Rowell	306	48	4 80

And in accordance with law, and an order of the Board of Trustees, made on the 28th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 10th day of February, 1866, at the hour of 11 o'clock, A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOS. C. FORD, Secretary.

Office, No. 20 Exchange Building. jan27

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Berry, Harrison	101	25	$25 00
Coon, M R	110 and 111 25 ea	50	50 00
Coon, M R	114	5	5 00
Coon, M R	178	3	3 00
Clark, J Warren	123	1	1 00
Clark, J Warren	not issued	10	10 00
Clark, Sarah A	122	5	5 00
Clark, Miriam	124	25	25 00
Clark, P A	115	5	5 00
Clark, P A	116 and 117 1 ea	2	2 00
Clark, P A	12d	3	3 00
Clark, P A	119 and 121 4 ea	8	8 00
Corbwell, J F	80, 81, 82 10 ea	30	30 00
Denuing, Wm	168	10	10 00
Dake, C W	246	12	12 00
Egan, E D	140	2	2 00
Elsworth, Wm	180	5	5 00
Gibson, James	39 and 40 10 ea	20	20 00
Graham, T B	not issued	10	10 00
Keeney, Charles W	132	2	2 00
Kercheval, Sarah A	240	10	10 00
Lee, O N	not issued	9 2-3	10 00
Mecklenberg, Joseph	165	5	5 00
Miller, J E	165	10	10 00
Sloan, H H	28 and 29 10 ea	20	20 00
Savage, Richard	164	10	10 00
Whitton, M S	68	7	7 00
Whitton, C J	183	10	10 00
Sloan, H H	36	5¼	6 00
Knight, Thomas	37	4½	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 20th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the auction rooms of Messrs. Olney & Co., No. 626 Montgomery street, on the 20th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.

Office, 838 Montgomery street, San Francisco. feb3

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of January, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, W. L. GETCHELL.

Any stock upon which said assessment shall remain unpaid on Saturday, the 24th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. jan27

Jewett Gold and Silver Mining Company, Gold Hill District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 29th day of January, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 20th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

G. M. BURNHAM, Secretary Pro tem.

Office, 436 Jackson street. feb3

Lady of the Lake Gold and Silver Mining Company. San Francisco District, Mohave County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable on the 2d day of February, 1866, in United States gold and silver coin, to the Secretary, at his office.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1865, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. feb3

Leland Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 2d day of February, 1856, in United States gold and silver coin, to the Secretary, at his office.

Any stock upon which said assessment shall remain unpaid on the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary,

Office, 302 Montgomery street, San Francisco, Cal. fe3

MINING LAWS AND FORMS.

Third Edition revised and enlarged.

Compiled by H. R. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete; Digest of Decisions of the Supreme Court; Forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

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Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on the coast.

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

Owens River Canal Company, Tulare County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Gilliland, E P	23	5	$2 00
Gilliland, Newell	24	5	2 00
McKinney, Wm	26	10	4 00
Warner, A K	27	25	10 00
Loomis, Riley	28	25	10 00
Preble, Mrs L A	29	5	2 00
Stetson, Wm	30	4	1 00
Webber, L A	37	10	4 00
Hastings, N	39	25	10 00
Hollenback, J C	40	30	12 00
Preble, S W	44	10	4 00
Dows, H J	45	10	4 00
Wright, D J	46	10	4 00
Brown, D J	47	10	4 00
Perrin, Otis	48	25	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Maurice & Co.'s saleroom, 327 Montgomery street, on Monday, the 19th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.

Office, 618 Merchant street, San Francisco. feb3

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 8th day of January, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 9th day of January, 1866, in United States gold and silver coin, to the Secretary, or to the Superintendent at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 3d day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretary.

Office, corner Broadway and Sansome streets, San Francisco. jan20

Salamander Gold and Silver Mining Company, Mill Valley District, Calaveras County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 28th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Lawrence Ackli,	189 to 192	105 5-19	$21 00
H G Bartholemew	102	50	14 00
Mrs C Bartholemew	104 to 109	20	4 00
John Brannan	290	105 5-19	21 00
John Callahan	169	80 5-10	16 00
Jas Carty	280	100 5-19	20 00
J Dwyer	290	105 5-19	21 00
Ed Dougherty	93	25	5 00
Jas Dowd	259	5	1 00
Thos Douohuo	96 to 101	50	10 00
M C Farley	235	10	2 00
Mrs Margarett Gibbons	287	20	4 00
Jas Hamilton	1, 3, 5, 7, 8	65 5-19	13 00
X Huber	294	105	21 00
A E Hill	259	10	2 00
Wm Jackson	44 to 68 and 188 to 256	860 2-19	112 00
John Kahars	260 to 262	25	5 00
Wm Kretchman	295	105 5-19	21 00
B B Keuey	151	10	2 00
John Louth	279	95 5 19	19 00
Jas Liddy	238	25	5 00
Jas Morgan	30, 31, 34, 35, 37 39, 40, 41, 42, 43	70 5-19	14 00
D McColgan	292	50	10 00
T F Maguire	286	30 5-10	6 00
Eb Pomroy	225 to 234	200 10-10	40 00
John Perry	271	25	5 00
John J Redmond	283	105 5-19	21 00
E L Roesing	293	105 5 19	21 00
John Ryan	214	25	5 00
R F Ryan	198 to 219	45	9 00
G W Smith	291	100 10-19	20 00
A Schramm	217	105 5-19	21 00
A P Warren	243 to 288	115	23 00

And in accordance with law, and an order of the Board of Trustees, made on the 28th day of December, 1865, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at J. R. Stewart & Co.'s, No. 417 Battery street, on the 10th day of February, 1865, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

F. D. GALLAGHER, Secretary.

Office, No. 35 Metropolitan Block, San Francisco, Cal. jan27

Wide West Gold and Silver Mining Company. Location: Silver Mountain District, Alpine County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of January, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Mrs S K Arnold	226	5	$15 00
Reuben Bost	136	5	15 00
Reuben Bost	140	5	15 00
Reuben Bost	141	5	15 00
Reuben Bost	155	6	18 00
Reuben Bost	257	31	93 00
Reuben Bost	259	31	93 00
Reuben Bost	299	3	9 00
Reuben Bost	302	32	96 00
Reuben Bost	162	10	30 00
Reuben Bost	135	5	15 00
Geo E Brush	120	4	12 00
J S Brown	213	10	30 00
P D Bailey	253	17	51 00
J G Brayton	283	10	30 00
J G Brayton	284	10	30 00
J G Brayton	285	10	30 00
J G Brayton	286	10	30 00
J G Brayton	287	10	30 00
J G Brayton	288	10	30 00
J G Brayton	289	5	15 00
J G Brayton	290	5	15 00
J G Brayton	291	5	15 00
J G Brayton	292	5	15 00
Frank Cable	not issued	250	750 00
B Capell	69	10	30 00
B Capell	70	10	30 00
B Capell	71	5	15 00
B Capell	202	10	30 00
B Capell	77	5	15 00
B Capell	80	5	15 00
B Capell	81	10	30 00
B Capell	82	10	30 00
B Capell	78	5	15 00
B Capell	79	5	15 00
P Christianson	114	8	24 00
P Christianson	115	5	15 00
W B Carleton & E W Leach	187	5	15 00
W B Carleton & E W Leach	188	5	15 00
Jas S Cajot	231	10	30 00
W J Dobbins	25	25	75 00
W J Dobbins	306	25	75 00
M L Durbin	237	10	30 00
Wm Demming	248	10	30 00
Wm Demming	249	10	30 00
John Gawdy	309	5	15 00
S B Edsall	not issued	150	450 00
Wm Edgington	223	10	30 00
Thos Earl	238	15	45 00
Wm H Gibbs	239	10	30 00
B R Johnson	250	10	30 00
B R Johnson	251	10	30 00
John Gillam	246	10	30 00
Wiley F James	241	5	15 00
Wiley F James	243	5	15 00
Wiley F James	243	5	15 00
Wiley F James	244	5	15 00
Wiley F James	245	5	15 00
Charles Kather	300	10	30 00
A B Lake	121	4	12 00
N Lawrence	254	16	48 00
J A McGimsey	not issued	75	225 00
J A McGimsey	305	10	30 00
J A McGimsey	33	5	15 00
J A McGimsey	34	6	18 00
J Mecklenberg	113	5	15 00
James Morrison	41	5	15 00
Robt McReynolds	118	10	30 00
Jacob McReynolds	122	2	6 00
Jacob McReynolds	241	5	15 00
Donald McDonald	234	10	30 00
Geo W Manwell	303	5	15 00
A C McDonnell	225	5	15 00
A C McDonnell	226	7	21 00
Chas McIntire	265	10	30 00
Wm McGill	301	10	30 00
J N Pierson	195	10	30 00
Geo F Reeves	230	5	15 00
J W B Reynolds	19	25	75 00
J W B Reynolds	20	25	75 00
J W B Reynolds	184	15	45 00
J W B Reynolds	22	25	75 00
T H Rickman	127	5	15 00
T H Rickman	128	10	30 00
T H Rickman	129	8	24 00
Rickman & Sewell	130	5	15 00
Andrew Stephens	106	20	60 00
Andrew Stephens	107	20	60 00
Andrew Srephens	108	20	60 00
Andrew Stephens	186	20	60 00
Ole Simondson	119	5	15 00
John Stilts	232	20	60 00
Stilwagon & Boynton	236	33	99 00
W W Stilwagon	267	10	30 00
O P Southwell	266	5	15 00
T Vann	270	10	30 00
Jerome Wade	35	5	15 00
Jerome Wade	36	5	15 00
Jerome Wade	37	5	15 00
Jerome Wade	38	5	15 00
B F White	42	12½	37 50
R J Whitton	66	10	30 00
M S Whitton	2	5	15 00
M S Whitton	304	15	45 00
E Whitton	62	20	60 00
Mrs N Whitton	63	10	30 00
W H Whitton	48	20	60 00
W H Whitton	49	5	15 00
W H Whitton	51	5	15 00
S C Wolfskill	179	25	75 00
A G Wood	272	20	60 00
A G Wood	273	20	60 00
A G Wood	274	20	60 00
A G Wood	275	20	60 00
A G Wood	276	20	50 00
A G Wood	277	20	60 00
A G Wood.	278	20	50 00

And in accordance with law, and an order of the Board of Trustees, made on the said 4th day of January, 1856, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 21st day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOSEPH GREEN, Secretary.

Office, 330 Davis street, San Francisco. feb3

POSTPONEMENT.—The above sale is hereby postponed until Friday, March 2, 1866, at the same hour and place. By order of the Board of Trustees.

feb10 JOSEPH GREEN, Secretary.

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 1st day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Berges, P	36	1	$ 8 00
Couturon, J B	326	2½	7 50
De Montpreville, C	89	12	36 00
De Montpreville, C	90	13	39 00
Hochstadter & Bro	244	20	60 00
Hochstadter & Bro	249	10	30 00

And in accordance with law, and an order of the Board of Trustees, made on the 1st day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 17th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up-stairs, San Francisco. fe3

POSTPONEMENTS.—We would again call the attention of Secretaries to a certain point of the mining law, too commonly overlooked, viz: The requirement that all postponements must be added previous to the expiration of the regular publication of assessment or sale notices.

COPPER SMELTING WORKS.—The Great Central Company of Arizona, says the *Alta*, has recently shipped a full set of smelting furnaces, with steam power and all necessary machinery, tools and supplies for their mine, having a large amount of rich copper ore already out and ready for smelting. The smelting works will be erected at Williams' Fork, near its mouth, but a short distance from steam navigation on the Colorado, and will be in running order, if no mishap occurs, before the 1st of April. These are the first regular blast smelting furnaces ever sent to Arizona, and upon their seccess depends, in a great measure, the immediate development of immense mines of copper, gold, silver, and galena ores of the particular character found in that section of the country, and now lying idle and unproductive for want of means to profitably work them.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Just and True Economy

The Proprietors of the MINING AND SCIENTIFIC PRESS would call the especial attention of MINING SECRETARIES, TRUSTEES AND SHAREHOLDERS, to a few substantial reasons for the publication of Mining Notices in their journal—the first and only important newspaper of its class published upon this coast.

1st: The PRESS enjoys a large and permanent subscription list, having a more universal circulation among shareholders and men intimately connected with mining interests than any other publication.

2d. Under the present law the publication of all mining notices on Saturday, in a weekly journal, complies as fully with the statutes as a daily publication. It is generally found to be equally as convenient for secretaries, and decidedly preferable to stockholders who have not time to examine throughout every issue of a daily.

3d. Economy in mining should always be looked upon with favor, and the cost for weekly advertising in the PRESS is less by ONE HALF than the rates of any other journal in this city possessing a respectable circulation.

4th. The publishers of the PRESS, making the mining interest their especial care, take particular pains to assist in the avoidance of errors in advertising. Our print is also more clear and perfect than can be expected in such papers as are hurriedly issued from cylinder presses.

5th. Our "Shareholders' Directory" forms a complete index of all mining notices published in San Francisco, by reference to which shareholders can at once see if their company is advertised, and determine whether the same is inserted in the PRESS or some other paper.

6th. Many copies of the PRESS are bound by prominent professional men, mechanics, secretaries, brokers, shareholders and others, as an important record for future reference, thereby rendering advertising, of every class, in its columns, of peculiar and permanent value.

7th. The benefit of having all mining notices consolidated in one newspaper, for the common convenience of shareholders, secretaries, and others who have occasion to refer to the same, is obvious. With this view we have established our rates at only fair, living prices, believing that a journal like ours, untrammeled by party, creed, or prejudice, is the only medium which can reasonably ask for such a consolidation of mining patronage.

8th. Advertisements in the columns of the PRESS, after their first insertion, are arranged alphabetically. Our present list is equalled only in one instance by that of any other journal. Shareholders, as well as strangers, naturally turn their attention to a mining journal for information concerning the mines and mining matters.

LAST, BUT NOT LEAST.—Our sheet (having been recently enlarged to the size of Harpers' Weekly) is now only equalled in its dimensions by one mining paper in existence—the *London Mining Journal*. Published in this, the greatest mining field of the world, we desire that the PRESS shall have no superior. We can only realize our cherished object of building up a reliable advocate of the science and business of mining, which will be of just honor and profit to our community, by experience and liberal patronage. The bestowal of such favors only as naturally belong to us, and which it is clearly for the benefit of the mining fraternity to extend, is all that is requisite, and we are confident we shall receive it

DEWEY & CO.,
4vII Office Mining and Scientific Press.

A Good Financial Weekly.

The Stockholder:

MONITOR OF FINANCE AND INDUSTRY,

Is published every Tuesday Morning,

At 72 William street, New York,

—GIVING—

Quotations of all important Bonds and Stock Securities in the United States; GOVERNMENT, STATE, CITY, BANK, INSURANCE, PETROLEUM, MINING, and other miscellaneous Joint-Stock Organizations, with the Financial Statements of the same; Notices of Payment of Interest and Dividends—

fact, all matters that can be of interest to Security-holders.

Its columns will be found replete with important and useful financial information.

The Quotations given are correct, and may be relied upon either for the purchase or sale of Bonds or Stocks.

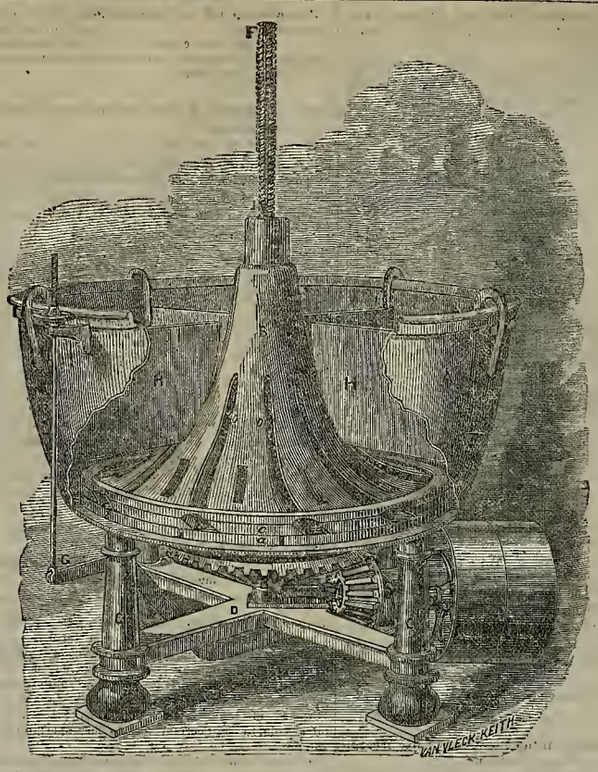
THE STOCKHOLDER is the *only strictly financial paper published in the United States.*

TERMS, FIVE DOLLARS PER YEAR.

All letters should be addressed,

GEO. M. NEWTON, Publisher,
5v12tf 72 William street, New York.

SUBSCRIBE FOR IT.—The large, illustrated sixty-four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.



THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and o, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.

SAN FRANCISCO, June 13, 1865.

LICK HOUSE,

Corner of Montgomery and Sutter streets,

SAN FRANCISCO.

S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests.
15v11

CLOTHING MADE FROM "CALIFORNIA CLOTH,"

For Wholesale and Retail Trade,

ALSO, CLOTHING MADE TO ORDER,

AT QUINCY HALL,

Nos. 545, 547 and 549 Washington Street,

SAN FRANCISCO, CAL.

19v1-3m

VALUABLE PATENT RIGHT FOR SALE.

The patent right for the United States of a valuable invention can be secured at a bargain by applying at this office. The article is one of general application throughout civilization.

DEWEY & CO., Publishers.

Removal.

The Office of the MINING AND SCIENTIFIC PRESS has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive JOB PRINTING OFFICE.

San Francisco, April 10th, 1865.

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nyo County News.

THE STYLE

—FOR—

Fall and Winter, 1865,

Will be introduced Aug. 26, at

MEUSSDORFFER'S

HAT MANUFACTORIES,

Nos. 635 & 637 Commercial st., San Francisco,

No. 125 J st., bet. Fourth & Fifth, Sacramento.

Corner D and Second Streets, Marysville. 12vII

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,

No. 602 Montgomery street, San Francisco.

EXCLUSIVE AGENT

—FOR THE—

AMERICAN WATCH FACTORY.

A large assortment of these

Superior Watches,

In Gold and Silver Cases,

Constantly on hand, and sold at Factory prices. Also,

ENGLISH AND SWISS WATCHES,

Imported directly from the Manufacturers.

The American Company are now making

VERY FINE WATCHES FOR LADIES.

☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

BUY

The Monthly Series

—OF THE—

MINING AND SCIENTIFIC PRESS.

Send it to Your Friends.

Issued at the close of EACH Month.

PRICE.....50 CENTS.

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for BOOK AND PAMPHLET PRINTING entrusted to the Mining and Scientific Press Job Office.

JOHN TAYLOR & CO.,

—IMPORTERS AND DEALERS OF—

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco, March 6, 1865. IIv10-tf

CHARLES BERNARD,

MANUFACTURER AND DEALER IN

Family Chartres Coffee,

AND SPICES OF ALL KINDS,

No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.

First Premium Awarded

BY THE MECHANICS' INSTITUTE,

FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to.
15v1I-3m

OIL WELL BORING.

J. SEVENOAKS,

Contractor

For Well Boring and Erecting all kinds of Machinery connected therewith.

Having had extensive experience in boring for oil in Penusylvania, Canada and elsewhere, I feel confident of being able to give entire satisfaction. Persons desirous of making contracts as above, or wishing information with regard to oil indications, etc., will please address me at the office of the "Mining and Scientific Press," San Francisco, or to my personal address, Box 1229 San Francisco. 2vII

MINING PROPERTIES.

PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining Interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble.
1v12

ENGRAVED TO ORDER.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st

THE LATE EARTHQUAKE IN SONOMA COUNTY. The Petaluma *Argus* of the 1st, says: "At about half past ten o'clock, A. M., on Friday last, a severe shock of an earthquake was experienced in this city. It came with a quick, chopping motion, giving the *Journal and Argus* building one lurch which caused a *stampede* of all hands to the street. There was no damage done. At Sonoma the shock was severe."

THE great entertainments in human society are refined thought, intellectual conversation, and elegant reading. These endowments add brilliancy to youth and beauty, and, when all other charms are departed, they make old age sacred, venerable and beloved.

AUSTRALIA has been visited by severe storms. A vessel at Newcastle, and a number of cattle, were struck by lightning. In one district all the crops were ruined by hail.

THIRTY plundering street-car conductors have been detected, in New York, by female spies.

BY MAIL.—The MINING AND SCIENTIFIC PRESS will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1861, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

SEND US WORD.—If any subscriber to this journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLATURE of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420 37

III.—The Company has NO DEBTS

IV.—The amount of Insurance effected during the year, and which remained in force December 31, 1865:

Fire.....$12,973,949
Marine.....481,408

This Company commenced underwriting Marine Risks, August 1, 1865.

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. H. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19, 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheesemann,	Chas. Mayne,
Abm. Seligman,	Wm Hooper,	Lloyd Tevis,
Anson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Rorcl,
D. J. Oliver,	Moses Heller,	O. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. C. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

MINERS

Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.

Gold, Silver and Copper Ores bought in any quantity.

Assay of Ores made by a new Fire Process in half the usual time, at half price.

Apply to J. MOSHEIMER,
23v11qy 423 Washington street, San Francisco.

RUGGLES' PRINTING PRESS
For Sale or Exchange.

The Proprietors of the MINING AND SCIENTIFIC PRESS have on hand a Half-Medium Ruggles Eagine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,
Office, 505 Clay street.

ITS correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco. [Nye County News.

Machinery.

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; no trace of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

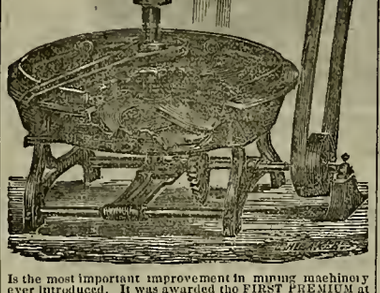
5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine it is not run empty; all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed. All orders and any information required, address

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; its small cost; its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Grull's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of
Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,
Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

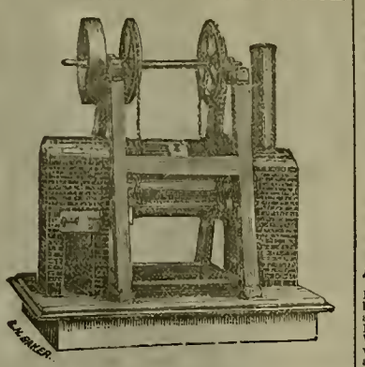
Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc. ☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. Illustrated in the Mining and Scientific Press, April 9th, 864.] HEPBURN & PETERSON.
nov8 3m*

McCOMB'S
CUMULATIVE POWER PRESS
AND
ARROW TIE.

E. C McCOMB, Agent.
No. 1 Government House, cor. Sansome and Washington sts.
23v10 3m

The Mechanics' Institute
AWARDED A
PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
12v11 416 Market street, San Francisco.

HUNT'S
IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person; and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN
HORSE POWER
For Sawing Wood.
ALSO, THE
Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.
☞ For further Particulars see small circulars. ☜
E. O. HUNT,
No. 28 Second Street, and 108 & 112 Jessie Street, San Francisco. 26-3m

Portable Steam Engines!
"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

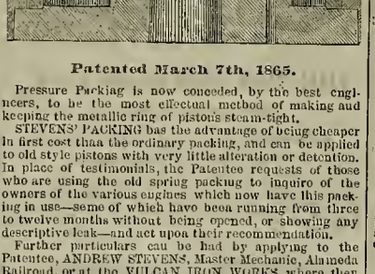
Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by TREADWELL & CO.,
3v12-3m Corner of Front and Market streets.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

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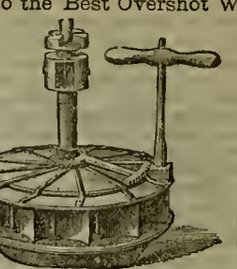

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For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

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COLLEGE OF CALIFORNIA.—From the Annual Catalogue of this important and flourishing institution of our neighboring city, Oakland, we glean the following information :

During the last year the college had 243 students. The Senior class embraces 4 ; the Junior class, 3 ; the Sophomore class, 6 ; the Freshman class, 12. The balance of the scholars are in the Primary Department. The academic year for 1866, commenced on the 18th ult. The examinations occur May 31st, and June 1st and 4th.

The following gentlemen compose the Faculty in the higher branches of study, viz. : Vice President, Rev. Samuel H. Willey, M. A.; Rev. Henry Durant, M. A., Professor of the Greek language and Literature ; Rev. Martin Kellogg, M. A., Professor of the Latin language and Literature ; Rev. Isaac H. Brayton, M. A., Professor of Rhetoric, Belles-Lettres, and the English langnage ; Rev. Francis D. Hodgson, M. A., Instructor in Mathematics and in Natural Philosophy ; Wm. P. Gibbons, M. D., Lecturer in Physiology ; Chas. L. Des Rochers, Teacher in French ; S. S. Sanborn, M. A., Teacher in German.

Faculty of the Academic Department : Rev. Isaac H. Brayton, A. M., Principal, Mental Philosophy, Rhetoric and History ; Henry Carver, A. M., Associate Principal and Professor of Surveying and Civil Engineering ; Frederick M. Campbell, Assistant Principal, and Instructor in Natural Philosophy, Bookkeeping, etc.; Rev. Francis D. Hodgson, A. M., Instructor in Natural Science and Higher Mathematics ; S. S. Sanborn, A. B., the Latin, Greek and German languages ; William C Dodge, Mathematics and English branches ; Paul Garin, French and Spanish languages ; J. M. Sibley, A. M., Principal of the Primary Department ; Chas. L. Des Rochers, Drawing and Painting : Mr. and Mrs. E. B. Higgins, Vocal and Instrumental Music ; Frank M. Dodge, Teacher of Penmanship ; Morris. S Campbell, Stationer and Accountant.

Wm. P. Blake, M. A., has been appointed Director for the "Department of Mining and Agricultural College," and Professor of Mineralogy, Geology and Mining ; and Sherman Day, M. A., Professor of Mine Construction and Surveying.

PRODUCT OF THE NORTHERN PACIFIC GOLD FIELDS.—The Dalles *Mountaineer* gives the following table of the estimated annual product of gold and silver on the Columbia and its tributaries, for 1865 :

John Day mines	$1,500,000
Warren's Diggings	750,000
Elk City	250,000
Florence	200,000
Clearwater Station	200,000
Oro Fino	600,000
Bars of Salmon, Snake and Clearwater	300,000
Clark's Creek and M. Basin	150,000
Colville, Pen d'Oreille, and Kooteuai	1,000,000
The Montana Trade	1,000,000
Auburn	500,000
Total	$6,450,000.

The mines of southern Idaho are not included in the list.

GOOD INDICATIONS.—As an evidence of increasing interest in mining matters, we can say that our file of valuable communications from all parts of this State and Nevada is more replete than ever before. When prospects are bright, the spirit moves, and people feel like writing.

SPRING ATTIRE.—Since the late heavy rains, the foot-hills, and so much of the plains as are not flooded with water, have been putting on the green livery of spring, and "the face of all nature looks gay."

THE TRINITY JOURNAL has entered upon its eleventh volume, and we are pleased to learn that it is in a prosperous condition. It has ever been a useful paper.

SOME, if not all of the San Francisco foundries, are manufacturing an unusual amount of stock work this winter, in anticipation of a lively mining season.

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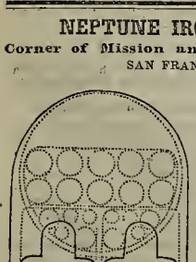

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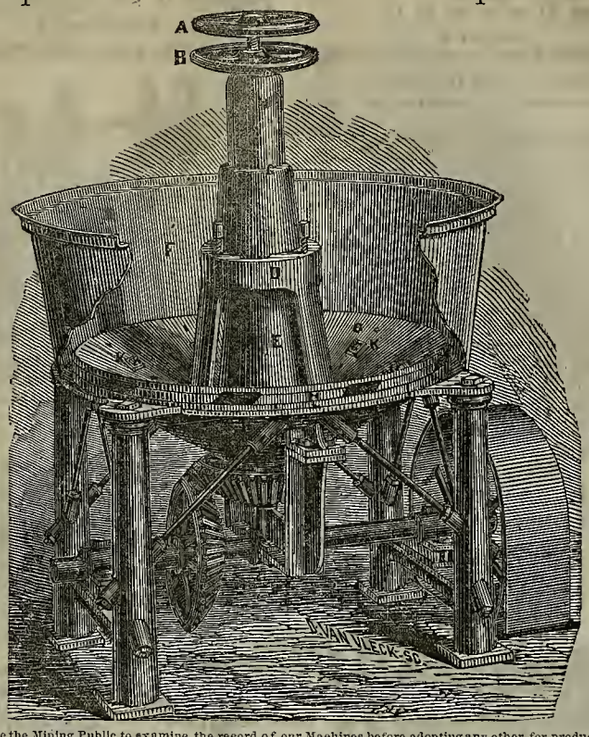

We invite the Mining Public to examine the record of our Machines before adopting any other for producing similar results. They have been in general use for the past three years, during which time they have been repeatedly tried in comparison with every other machine of note, and of a similar nature, and have invariably been adopted in preference; which facts we offer as the most suitable recommendation, and which is attested by the following list of

Principal Mills Using them :

Names of Companies.	*Location of Mill.*		*Names of Companies.*	*Location of Mill.*	
GOULD & CURRY	Virginia City,	Nevada.	TEARLE, ROGERS & CO		Nevada.
SILVER STATE REDUCT'N WKS.	Empire City,	"	MELVILLE KELSEY	Silver City,	"
OPHIR	Washoe City,	"	HUDGIN & FORMAN	Silver City,	"
EDWARD McLEAN	Silver City,	"	YELLOW JACKET	Empire city,	"
SANTIAGO	Zephyr Flat,	"	BELDIN & GREGORY	Esmeralda.	"
RAPHAEL & HUSTED	Gold Hill,	"	HECKENDORN	Calaveras Co.,	Cal.
FRENCH & BESLER	Dayton,	"	CARSON CREEK	Calaveras Co.,	"
HERMAN, KETSCHER & CO	Carson River,	"	CROWN LEAD	Mariposa Co.,	"
A. SUTRO	Dayton,	"	BIG BLUE LEAD	Tulare Co.,	"
DAVIS & BARRON	Carson City,	"	E. T. STEEN	Amador Co.,	"
PHŒNIX	Silver City,	"	EAGLE	Amador Co.,	"
CHAS. S. COUVER	Silver City,	"	IDA MILL	Owens River,	"
PIONEER	Silver City,	"	ALACRAN	Sonora,	Mexico.
L. A. BOOTHE & CO	Virginia City,	"	SANTA CLARA	Sonora,	"
A. DEL AND	Washoe,	"	ROSARIO & CARMAN	Sonora,	"
SUCCOR MILL & MINING CO	Gold Hill,	"	LIBERTAD	Sonora,	"
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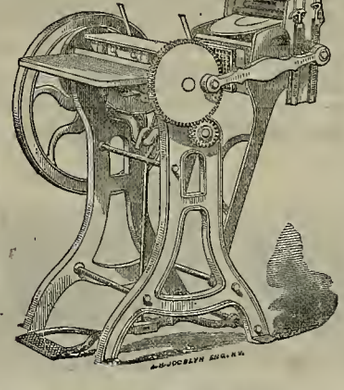

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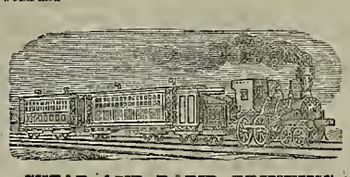

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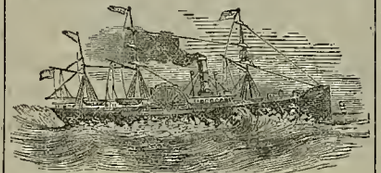

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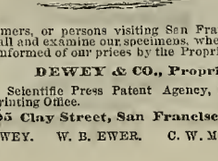

City customers, or persons visiting San Francisco, are invited to call and examine our specimens, when they will be politely informed of our prices by the Proprietors.

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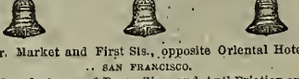

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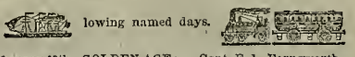

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February 19th—GOLDEN CITY.....Capt. F. R. Baby, Connecting with NEW YORK, Capt. Horner.

February 28th—COLORADO.....Capt. Jas. T. Watkins. Connecting with HENRY CHAUNCEY, Capt. Gray.

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For Panama.

Passengers will be conveyed from Panama to Aspinwall by the Panama Railroad Company, and from Aspinwall to New York in the splendid steamships of the PACIFIC MAIL STEAMSHIP COMPANY.

Steamers of this line will be dispatched the 10th, 19th and 28th of each month. When these dates fall on Sunday, the steamer will leave on Saturday preceding.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departure of 19th connects with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and steamer running to Guayaquil, touching at Tumaco, the port of the new mines, and P. R. R. Co.'s steamer for Central America.

Cabin passengers will be berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

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Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors. | SAN FRANCISCO, SATURDAY, FEBRUARY 17, 1866. | VOLUME XII. Number 7.

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The Mines of Lower California.
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A Trip to Mount Diablo—the Railroad, Copper Works, Quicksilver Mines, Etc.
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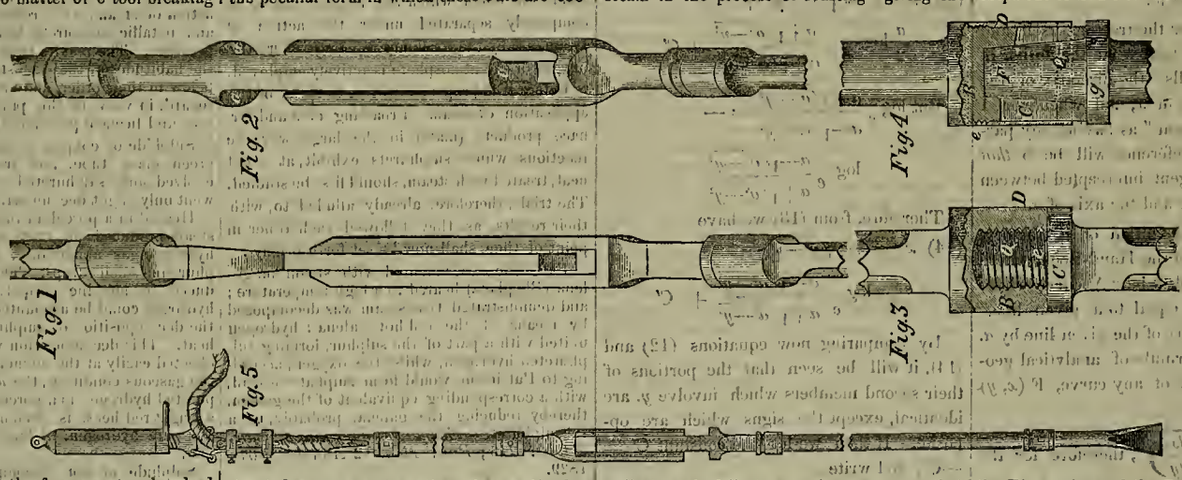
New Mining and Other Advertisements, etc.

WILSON & ATKINSON'S IMPROVED BORING TOOLS FOR ARTESIAN WELLS.

It has been a *desideratum* long sought for, by parties engaged in the artesian well boring, to obtain such tools as *would not break in the well*, as the mere matter of a tool breaking off, even at the depth of one or two hundred feet, often delays the work a month, or even longer, and oftentimes the well has to be abandoned altogether, on account of the inability of the workmen to extract the detached part remaining in the well.



The parts found by experience to be most liable to break, are the parts technically known as the "jar" and "pin," and "box," or "joint."

The present form of "pin and box," as shown in fig. 3, is merely a pin, Q, screwed into a socket or box, B, as it is termed. In order to prevent this from unscrewing in the well, the collar, C, has to be screwed hard or "jammed" against the socket at D with such force as to almost separate the fibers of the iron of the pin at *e*, and the result is, as soon as the tools are placed in the well, the temperature of which is very low, and the jarring motion produced, the pin sooner or later breaks.

The design of this "pin and box" is to obviate this difficulty, by preventing all undue strain on the working parts. The pin, Q, fig. 4, is turned a little tapering without any thread, and is ground to a nice fit in the box, B; C is a steel key having sufficient taper to bring the pin and box firmly together and no more; D is a sleeve with a thread at *e*, and having key-ways or slots at F, and is so constructed that when the sleeve is screwed within half a turn of the collar, g, the key-ways or slots are in line with the key-ways in the pin and box, and the key may be driven home.

To put the pin and box together the operation is as follows:—Unscrew the sleeve to within a half a turn of the collar opposite the screwed end of the sleeve, and the slots in the sleeve will be in line with the key-ways in the pin and box, as described. Insert the key and drive it home, then screw the sleeve hard against the collar at the screwed end of the sleeve and jam it. Now before the key can become detached from the "pin and box," the sleeve will have to become loose from the collar where it has been jammed, make six turns and get precisely in line with the key, and then wait for it to come out.

The principle of this "Jar" is the same as those now in use; but the construction is different. What is claimed in this invention is the peculiar form in which these Jars are constructed, so as to strengthen the weak parts and so increase the surface at the points, *a*, *a*, *a*, fig. 2, that the second blow may be struck without any injury to the Jar, by which means a well may be sunk in one-third less time than with the ordinary Jar. A glance at figs. 1 and 2 is sufficient explanation.

These tools are made of the very best ingotted wrought iron, and great pains are taken in their construction, and the reasonable inference that they are proof against any accident by breaking off in the well will render them invaluable to parties engaged in artesian well boring.

The demand for tools of this description in California, is rapidly on the increase, and the advantages of securing such as shall be most serviceable, and least liable to cause delay and cost by breakage, is a matter of the utmost importance. In addition to artesian and oil well boring, the search for coal will also soon create quite an additional demand for them; and we do not see why they may not also be economically employed in boring into gravel diggings for blasting purposes, especially where nitro-glycerine or gun cotton is used, which requires a space quite small in comparison to that required in the use of powder.

Manufacturers of tools for artesian boring, either for oil, water, or mining purposes, will find it worth their while to examine an advertisement for the sale of the patent-right of the above described tools for California, which will be found in another column. For further information with regard to the same, address A. A. Wilson, Morgan Iron Works, foot of 9th street, E. R., New York City.

THE USE OF STEAM IN ROASTING ORES.—We commence in another column the publication of the chapter on the use of steam in roasting ores, from Plattner's Treatise on the Metallurgy of Roasting Ores—the only valuable work in this especial branch of metallurgy ever published. This work, valuable as it is to the miner and metallurgist, has never yet been translated into the English language. The present chapter will be concluded in our next issue. We have selected this, at the present time, from the fact that it treats particularly upon the use of steam in the process of roasting—giving the earliest and fullest experiments upon that mode of roasting ores. From a perusal of this translation, the reader will perceive how little that is now being written and done in this direction is really new. We commend it to the careful perusal of our readers, and shall take a future occasion to make a more full allusion to it. We are indebted for its translation to G. W. Baker, Esq.

ARTESIAN WELLS IN VISALIA.—The Visalia *Delta* says that a project is on foot to test the practicability of Artesian wells in the valley about Visalia. A number of public spirited individuals largely interested in the development of the resources of that county, will, during the coming summer engage in boring such a well at some favorable point on the plains. The object of seeking Artesian water is for purposes of irrigation. There are tens of thousands of acres of as rich land as the sun shines upon, suitable for beautiful homesteads, scattered all over the valley, and only waiting the life giving element to render them Edens of verdure and beauty. The experiment is a most important one.

REMOVAL.—The Tear and Rip Copper Mining Company have removed its office, from Cosumnes Grove Hotel, El Dorado county, to San Francisco.

OIL ITEMS.—We have received no very late intelligence from the oil region. We clip the following from the Mattole correspondent of the Humboldt *Times*: "Well No. 3, at the McNutt Gulch, is being put down and shows very fine indications. They intend pumping this so soon as they have tested No. 1, and if energy and perseverance will bring success, Col. Allen, the superintendent, is bound to have it. There are about seventeen wells being put down now, the balance of them having suspended—some on account of the inclemency of the weather, and others for the purpose of getting power. Among those I have visited is the Irwin Davis—down three hundred and ten feet, prospects good; the Noble—taking out oil with the sand pump and preparing to perforate the pipe; the Brown & Co., Union Mettole Co., Buckeye Co., Sacramento Co., all have their drills going; may success attend them—they deserve it.

Los Angeles Oil.—The *News* says twelve barrels of petroleum passed through that city on the 28th ult., *en route* for San Pedro, for shipment to San Francisco. The oil was from the Pico springs of the San Fernando district in Los Angeles county.

Colusa Petroleum.—We understand that the Burr oil well, Antelope Valley, Colusa county, at a depth of over 200 feet, have obtained an intermittent flow of excellent oil. The flow occurs every hour or so; producing some five or six gallons at a time. There are eight wells in the county, most of them already having more or less oil, and every one said to show flattering prospects.

THE DIAMOND EXCITEMENT in Owyhee, has very much subsided; but is far from being "played out." The *Avalanche* says that some of the diamond hunters, learning that a pure diamond, when rubbed on a woolen cloth, would become sufficiently electrized to lift a hair, made the experiment on several crystals, supposed to be diamonds, and in most cases it succeeded; many of the crystals lifting the hair, lodestone-like, with ease.

CORN IN LOS ANGELES COUNTY.—A single township in Los Angeles county last year, produced eight-five thousand bushels of corn, which sold at forty cents per bushel. There is probably no part of the world more favorable for the production of corn than Los Angeles county. In many places roasting ears may be obtained every month in the year.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

Editors Mining and Scientific Press:—My attention has been especially directed for the first time, within the last few days, to the discussion of tractory conoidal and other grinding plates, contained in Wheeler & Randall's Quartz Operator's Hand Book, and which appeared in the Mining and Scientific Press, last May. Certain portions of this discussion have struck me as being somewhat peculiar in character, and as more than justifying the modest claim to originality therein, which is involved in the preface of the book.

I am sorry to appear in public to depreciate the work of any man, but when, in a case like this, fallacies are presented as mathematical demonstrations, it is but just to the public, who are interested, that they should be informed of the fact.

I therefore submit the following discussion of the same subjects, and in so doing, I do *not* claim any particular "originality;" for the tractory curve itself is not a peculiarly difficult one to treat, and it is not likely that either it or the properties of grinding plates have remained until this late day undiscussed by able mathematicians other than D'Alembert. I will add, however, that I have never *seen* a discussion of this curve other than that contained in the book referred to.

I will first discuss the tractory itself, and in doing so, I shall take what the author of the Hand-Book calls "the directrix of the curve," as the axis of x, and whenever I speak of the "tangent" as having any particular *value*, the reference will be to *that portion* of the tangent intercepted between the point of contact and the axis of x.

I will take the definition of a tractory, given on page 93 of the Hand-Book, where a tractory is defined to be "A curve whose tangent is always equal to a given line." Represent the length of the given line by a. By the ordinary formula of analytical geometry, the tangent of any curve, $F(x, y) = 0$, is equal to

(1) $y\sqrt{1+\left(\frac{dx}{dy}\right)^2}$, therefore for the tractory:

(2) $y\sqrt{1+\left(\frac{dx}{dy}\right)^2} = a$. Hence,

(3) $\frac{dx}{dy} = \pm\frac{\sqrt{a^2-y^2}}{y}$. The numerator of the fraction in (3) is equal to the *subtangent*, whose general value is $y\frac{dx}{dy}$.

In equation (3) we have two cases, viz.:

$\frac{dx}{dy} = +\frac{\sqrt{a^2-y^2}}{y}$, and $\frac{dx}{dy} = -\frac{\sqrt{a^2-y^2}}{y}$.

Let us consider these two cases separately:

Case 1st.

Take $\frac{dx}{dy} = +\frac{\sqrt{a^2-y^2}}{y}$. This equation is not in a convenient form to integrate, therefore, we put

(4) $\sqrt{a^2-y^2} = z$, from which

(5) $y = \sqrt{a^2-z^2}$, and

(6) $\frac{dy}{dz} = -\frac{z}{\sqrt{a^2-z^2}}$. But

(7) $\frac{dx}{dz} = \frac{dx}{dy}\times\frac{dy}{dz}$. Substituting now in (7) the values of $\frac{dx}{dy}$ and $\frac{dy}{dz}$ in terms of z, we have

(8) $\frac{dx}{dz} = -\frac{z^2}{a^2-z^2} = 1 - \frac{a^2}{a^2-z^2}$.

Decomposing the term $\frac{a^2}{a^2-z^2}$, this gives us

(9) $\frac{dx}{dz} = 1 - \frac{a}{2(a-z)} - \frac{a}{2(a+z)}$,

Integrating (9), we obtain

(10) $x = z + \frac{a}{2}\log_e(a-z) - \frac{a}{2}\log_e(a+z) + C$, or

(11) $x = z + \frac{a}{2}\log_e\frac{a-z}{a+z} + C$.

Restoring now the value of z, we have

(12) $x = \sqrt{a^2-y^2} + \frac{a}{2}\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}} + C$.

Case 2d.

If $\frac{dx}{dy} = -\frac{\sqrt{a^2-y^2}}{y}$, put as before $\sqrt{a^2-y^2} = z$, therefore $y = \sqrt{a^2-z^2}$, and $\frac{dy}{dz} = -\frac{z}{\sqrt{a^2-z^2}}$. Hence, $\frac{dx}{dz} = \frac{z^2}{a^2-z^2} = -1 + \frac{a^2}{a^2-z^2} = -1 + \frac{a}{2(a+z)} + \frac{a}{2(a-z)}$.

Integrating, $x = -z + \frac{a}{2}\log_e(a+z) - \frac{a}{2}\log_e(a-z) + C$, or $x = -z + \frac{a}{2}\log_e\frac{a+z}{a-z} + C'$, from which, restoring value of z, we get

(13) $x = -\sqrt{a^2-y^2} + \frac{a}{2}\log_e\frac{a+\sqrt{a^2-y^2}}{a-\sqrt{a^2-y^2}} + C'$

But $\log_e\frac{a+\sqrt{a^2-y^2}}{a-\sqrt{a^2-y^2}} = -\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}}$

Therefore, from (13) we have

(14) $x = -\sqrt{a^2-y^2} - \frac{a}{2}\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}} + C'$

By comparing now equations (12) and (14), it will be seen that the portions of their second members which involve y, are identical, except the signs which are opposite. If then we let the constant $C' = -C$, and write

(15) $x = \pm\left(\sqrt{a^2-y^2} + \frac{a}{2}\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}} + C\right)$

we have an equation which includes both the two cases above considered, and is, therefore, the *general* equation of the tractory when the axis of x is the directrix.

It is evident that y cannot be numerically greater than a, for if so, x is impossible. Equation (15) shows that for every possible value of y there are two numerically equal values of x with contrary signs. For every value of x, there are also two numerically equal values of y with contrary signs. The curve is, therefore, symmetrical with respect to both the axes of x and y.

Since, when $y = a$, $x = \pm C$, the constant C represents the numerical value of the abscissa of the point whose ordinate is a. This constant being arbitrary, I shall now put it $= 0$, the effect of which is simply so to place the curve, that the point whose ordinate is a shall lie in the axis of y. Equations (12), (14), and (15), then become respectively

(16) $x = \sqrt{a^2-y^2} + \frac{a}{2}\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}}$

(17) $x = -\sqrt{a^2-y^2} - \frac{a}{2}\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}}$ and

(18) $x = \pm\left(\sqrt{a^2-y^2} + \frac{a}{2}\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}}\right)$

When $y = \pm a$, $x = 0$, also $\frac{dy}{dx} = \infty$

There are now, therefore, two cusps, one at the point $y = a$, $x = 0$, and the other at the point $y = -a$, $x = 0$, and at both points the tangent coincides with the axis of y.

[To be Continued.]

The Chemical Action of Steam on Metallic Sulphurets (Schwefelmettale) at a High Temperature.

[Translated for the Mining and Scientific Press from the German of Carl Fredrick Plattner, (Die Metallurgischen Rostprozesse, Freiburg, 1856.]

BY O. W. BAKER.

Many chemists and metallurgists have heretofore made experiments on the decomposition of metallic sulphurets in the small way (laboratory), when heated to a red hot heat, and submitted to a current of steam. The results attained excited the hope that the roasting of sulphurets, in practical working, for the elimination of the sulphur as completely as desired, would be accomplished in this way very simply and perfectly. But, unfortunately, up to the present time (1856) it has not been possible to make much use of that agent practically in roasting, since it is not easy to fulfill the conditions under which the sulphur can be as completely separated under the action of steam, as by the ordinary roasting, where the oxygen of the atmosphere is actively employed.

Before it is proper, however, to speak of the application of steam in roasting ores and furnace products (matt) in the large way, the reactions which sulphurets exhibit, at a red heat, treated with steam, should first be studied. The trials, therefore, already alluded to, with their results, as they followed each other in point of time, shall now be set forth briefly:

Pattinson experimented with steam on galena (Bleiglanz) heated to a high temperature; and demonstrated that steam was decomposed by means of the red-hot galena: hydrogen united with a part of the sulphur, forming sulphureted hydrogen, whilst the oxygen, according to Pattinson, would form sulphate of lead, with a corresponding equivalent of the galena, thereby reducing the galena, probably, to a subsulphuret.—*Erdman's Journal, Chemic. Bd. b. s.* 216; *Phil. Mag.* 12 *Annals, March* 1829.

Jordan's trials of the action of steam on galena, and galena mixed with coal, established that galena, treated at a high temperature with steam, was, with great difficulty, decomposed; sulphureted hydrogen and sulphurous acid gas being formed; some yellow oxide of lead was produced, and a part of the sulphuret of lead was carried off with the steam. When galena, mixed with fine coal was treated with steam, on the contrary, a slow decomposition took place; sulphureted hydrogen was abundantly evolved, and but little sulphurous acid gas, whilst there would be found, a sublimate in the shape of blue colored, feathery crystals, composed of very delicate cubes, and also small globules of lead in the undecomposed galena.—*Erdman's Journal, Bd.* xi. *s.* 348.

Regnault made experiments with steam on metals, metallic sulphurets, etc., heated to a high temperature. In the opening of his excellent memoir, this author speaks of the chemical reactions when steam is decomposed by sulphurets, as follows:

"The hydrogen of steam in the presence of a simple metallic sulphuret will form, with the sulphur, sulphureted hydrogen, and its oxygen will exercise an affinity for the metal, provided the metal retains such an affinity at the temperature to which the experiment is carried. The oxide formed will again react on the undecomposed sulphuret, sending forth a new portion of sulphurous acid, and liberating the metal."

"When, however, sulphurous acid and sulphureted hydrogen are intermingled at a high temperature, they mutually react on each other, forming on the one side water, on the other sulphur. Hence, the definite results of the experiment are, metal, sulphur, and a portion of undecomposed sulphureted hydrogen, if the metal has not the property of decomposing water. In this last case, the oxide which is formed when metal is heated in the presence of steam, will remain behind. In this respect steam might be considered a very powerful desulphurizing agent, if the sulphurets were decomposed under its influence with a reliable energy, from the fact that the desulphurization would in many cases be carried on by both elements of water—oxygen and hydrogen."

"The reactions are different if the sulphuret is mixed with coal. A part of the steam is decomposed by the carbon forming carbonic oxide, which has no influence on the mineral, and hydrogen, which, as H. Rose asserts, tears away a portion of the sulphur; but this last proceeds with much difficulty and much slower than it would through the agency of oxygen. The excess of undecomposed steam will react on the sulphur forming sulphureted hydrogen; but in the presence of the coal no further oxidation will ensue. Consequently, in the process of reduction no sulphur will be separated, and the desulphurization under such conditions will be hindered. The admixture of coal, therefore, cannot be made serviceable in a process of desulphurizing with steam, if steam is not efficient by itself; and, in fact, it will be found advantageous only for the reduction of the metal when it has been oxidized after the thorough removal of the sulphur."

"Should the atmosphere and steam, intermingled, be allowed to flow over highly heated sulphurets, it will be shown that neither exerts any influence on the other, both acting independently. The air will effect the roasting, as ordinarily, by means of the oxygen which it contains, whilst the steam at the same time will be effective, as heretofore stated."

"In this case, also, sulphurous acid and sulphureted hydrogen, will form, and reciprocally decompose one another, evolving water and sulphur, but permitting a definite portion of surplus gas to remain undecomposed. The metal obtains what is required to transform it to an oxide."—*Erdman's Journal, Bd.* X. S. 129.

Regnault extended his investigations on the action of steam, with regard to many metals and metallic sulphurets, heated to a high temperature. The results thus obtained showing the habitudes of these substances, are set forth below in their order, and are worthy of especial regard, in view of the practical treatment of ores and furnace products (matt).

Sulphide of copper, heated to redness in a green glass tube, and treated with steam, evolved some sulphureted hydrogen, but underwent only slight decomposition.

Heated in a porcelain tube to a white heat, steam produced an energetic action, forming hydrogen gas abundantly, and liberating sulphur in small drops. The sulphide was reduced to metallic copper. The evolution of hydrogen could be accounted for, only through the decomposition of sulphureted hydrogen by heat. This decomposition was most probably effected easily at the moment it was assuming the gaseous condition, the *nascent state*. (Sulphureted hydrogen in a porcelain tube heated to a bright red heat, is decomposed into sulphur and pure hydrogen. Cluzel, Ann. Chim. 84, 166.)

Sulphide of iron decomposes steam with much greater energy than sulphide of copper. When the trial is conducted in a glass tube, a large quantity of hydrogen is disengaged, and magnetic oxide is formed. A mixture of hydrogen and sulphureted hydrogen is evolved; the former doubtless arises, in this experiment, from the decomposition of the water, which is formed in the first period of the reaction, by the ferrous oxide.

Sulphide of zinc (blende, or native sulphide of zinc), heated in a glass tube, under a current of steam, forms a small quantity of sulphureted hydrogen, but is otherwise very slightly changed. Heated to a more intense heat in a porcelain tube, the decomposition is effected more speedily, causing a condensation in the forward part of the tube of small, silky tufts of the oxide of zinc, almost completely freeing the blende of sulphur.

Sulphide of lead (galena), heated under a current of steam in a glass tube, suffered at a dark red heat scarcely any decomposition. At a stronger heat sulphureted hydrogen was evolved, and the water in the tub (through which the gases were conducted and condensed), became milky. There was formed on the surface of the partially melted galena, a thin pellicle of melted lead. The fore part of the tube was bedizened over with small shining cubical crystals of galena, which had volatalized and were carried forward by the current of steam. The hydrogen of the steam, uniting with the sulphur, formed sulphureted hydrogen, whilst its oxygen combined with the lead. The oxide of lead reacts in the same measure as it is formed on the yet undecomposed mass of sulphide, forming metallic lead and disengaging sulphurous acid:

This last in its turn necessarily reacts on the sulphuretted hydrogen, occasioning the precipitation of the sulphur, and thus produced the milky appearance in the contents of the tub.

Sulphide of quicksilver (cinnabar), volatalizes when submitted to a current of steam, and is decomposed with considerable energy. Much sulphuretted hydrogens set free, and the volatalized matter becomes black, containing, intermingled through it, small globules of mercury. The products are also analagous to those formed by the reactions of galena.

Sulphide of silver decomposes steam with almost the same energy, submitted to the same conditions, as galena. The disengagement of sulphuretted hydrogen was very notable, and at the termination of the experiment, the sulphide of silver being melted in the tube, was covered on its surface with metallic silver.

Sulphide of antimony, heated under a current of steam, evolves a dense formation of sulphuretted hydrogen, at the same time condensing in the receiver a large quantity of an orange yellow substance, resembling greatly the sulphide of antimony obtained in the wet way, but composed of sulphide of antimony and antimonious acid; in the tube around the edges of the melted sulphide, precisely the same substance was fumbriated.

Sulphide of antimony likewise decomposes steam with considerable energy; sulphuretted hydrogen is disengaged, and an oxy-sulphuret is formed, $SbO^3 + 2Sb_2S_3$ which volatalizes in the same measure as it is produced. Moreover, this oxy-sulphuret is formed only when the sulphide is in great excess, since, by itself it will decompose steam, at a bright red heat, and would in this way, probably, be entirely converted into an oxide—antimonious acid.

Sulphide of arsenic exhibits the same reaction as sulphide of antimony, decomposing steam readily at a bright red heat, forming also under the same conditions an oxy-sulphuret, but which, on account of being so readily volatalized, is always mixed with a large quantity of the sulphide in excess.

In view of the foregoing results, Regnault comes to the following conclusion: "What is arrived at by the employment of steam in metallurgical processes, in effecting the roasting of metallic sulphurets, etc., is sufficiently demonstrated by the foregoing trials: that in this regard nothing is to be hoped for. The air of the atmosphere is by far the most energetic desulphurizer, as may be premised, *a priori*, without much trouble."

The investigations made by Bischof, in his laboratory, for the benebt of science, as well as for the explication of the various habits of minerals, demonstrate that sulphide of lead and silver, exposed at a high heat to the influence of steam, suffered decomposition, disengaging, simaltaneously, sulphuretted hydrogen and sulphurous acid gas, and liberating the metal (mossy, wire-shaped silver branches).

In the year 1844 I had an opportunity to judge for myself, by experiments in the laboratory, that in the decomposition of metallic sulphurets, the sulphide of arsenic, and arsenical ores, was extraordinarily slow, when submitted to the action of steam, air being entirely excluded, and at a temperature such as would be employed in roasting pulverized ore and matt in a flame furnace; but when the air was admitted, very much quicker, yet not so perfectly as when acted on by the air alone. Experiments were made with ordinary pyrites, arsenical, cupreous pyrites, galena, blende, *Spieskobalt*, and other variously composed ores, such as were in part treated by lusion at the Freiburg works, and part intended for amalgamation.

In the trials with steam, excluding the air entirely, very refractory glass tubes were employed, the ends of which were bent downwards; whilst for roasting with steam, and a partial admission of air, and at the same time permitting the roasting to be controlled with its free admission, in the absence of steam, a porcelain tube was employed, two feet long, and two inches wide in the bore. The same quantity, 20 grain., of the substance to be operated on, finely palverized ore, etc., could be treated in each trial. The porcelain tube used for roasting with steam and the partial admission of air, was not laid exactly horizontal, but, was placed in a red-hot, furnace, inclined at the end, into which the current of steam was to be admitted. This end was also so loosely closed with a well-fitting stopper of slightly burnt clay, that air could enter around it, only in small quantity, while steam flowed in through a small glass tube. The other end was likewise closed with a stopper of burnt clay, having a glass tube passed through it, in such a manner that it could readily be opened for the introduction of ore, etc., from time to time, with a proper instrument.

The trials of metallic sulphurets with steam alone, employing as strong a heat as the glass tube would safely endure, developed the same results as those obtained by the experiments of Regnault; when air was partially admitted, the results attained were not more favorable than when the trials were conducted under the admission of air exclusively. The decomposition of sulphurets and arsenurets proceeded the slower as the quantity of air was diminished, and the process ceased almost entirely when only a moderately red heat was maintained.

(To be Continued.)

(Written for the Mining and Scientific Press.)

The Mines of Lower California.

Lower California presents an interesting field for geological study; there is a newness about its appearance that would seem to afford a key to its geological formation. Its elevation from the sea at a comparatively recent period is evident. Rocks of sedimentary series, granite, gneiss, and volcanic deposits, comprise almost the entire strata.

No country of the same extent affords a greater abundance and variety of minerals. Silver and gold abound from one to the other extremity of the peninsula. Rich placers of the latter metal do not exist, however, as the elements have not been long enough at work, and the water courses are not of sufficient extent to create large alluvial deposits.

EARLIEST SPANISH MINING.

Silver veins of unsurpassed richness and extent abound wherever primary formations occur. One Manuel Oseo, a discharged soldier appears to have been the first person to turn his attention to mining. The date appears somewhat uncertain; but there are people now alive who remember to have visited his haciendas at Tescalama and Santa Ana. Both his stamps and furnace blast were run by water power; the former was entirely swept away about eighty years ago by a flood caused by the heavy rains of an equinoctial storm; the ruins of the other hacienda are still standing.

Santa Ana was a mining town in 1769, when European astronomers selected that place to observe the transit of Venus. All traces of the mines in that vicinity worked by Oseo have been lost; there is no doubt but that he became very rich; it is believed, that in one year he paid, as the king's fifth, $36,000, the produce of his mines. He was murdered by his servants, who robbed him of what treasure they could find, stole his vessel, and embarked for San Blas, where they were apprehended and executed. It is supposed a large amount of silver and gold bars which he had buried escaped their search. Twenty-five years after his death his son arrived from old Spain to recover his property, but found the haciendas in ruins, his numerous ranchos deserted, and the cattle roaming wild.

It was many years after Oseo's death before work was resumed on the mines he had opened. The location of one, "*Mina Rica de Oseo*," still remains a mystery. The mine named "*Mina Rica*," situated in San Antonio, which was made the object of speculation in San Francisco in the palmy days of "wild cat," is known to be a later and worthless discovery, now abandoned.

Most of the silver veins of Lower California are composed of very refractory sulphurets; notwithstanding this, the mines of San Antonio district seem to have been worked with considerable success, and many persons acquired considerable wealth by extracting the decomposed surface ores, which yielded only a portion of the silver by the patio amalgamation; as is proved by assay of the few banks of tailings that remained, most of which have been run into the creeks, and washed away by the yearly rains. Part of the town of San Antonio is built on a bed of tailings, that assay from $30 to $40 per ton. When no more *arogue* ore was to be found in the veins, such mines were abandoned.

LATER MEXICAN OPERATIONS.

In the year 1856 a company was formed in Mexico, and experts dispatched to this territory to examine and report upon the mines. The result was that seventeen mines were discovered, and a prorogue of five years granted to the explorers. The company have worked but two of these, and managed to keep possession of the balance, to the manifest injustice of the mining community, for nine years.

The plan adopted by the Mexican company was to ship their ores to Freibarg for reduction. This is done at an expense of about $50 per ton, exclusive of the cost of mining.

The Hamburg house of G. R. Muller & Co., of Mazatlan, make advances upon the ores. The confidence placed by that house in the assays of Mr. Flores, superintendent, have enabled the company to prosecute the work of their mines without calls; the ore being deposited at their agency at La Paz as fast as extracted from the mines. Mr. Flores was fortunate in selecting mines having large deposits of ores above the water-level; enabling him to work without expensive machinery. He employs only Mexican labor, at a low price, and pursues the most economical method of extracting the ores. The company have been very prosperous, receiving yearly dividends without any paid-up capital. Mr. F., who, besides his salary, receives a per centage of the profits, has secured a handsome competence for himself. Their success is abundant evidence that the veins are rich, and that mineral exists in abundance; besides, it is estimated that they have at least 4,000 tons of ore paying less than $50 per ton that would not bear the cost of transportation, still remaining at their dumps.

SAN FRANCISCO MINING OPERATIONS.

The Triunfo company's mines are on the same lode, and have even a greater abundance of equally rich ores than the Mexican company. They have a 10-stamp mill, and profess to reduce at a cost of less than twenty dollars per ton; yet they are going behind-hand, the company is in debt, and their entire property is hypothecated here. They had more reliable data to calculate results, than the Mexican company, who took the first risk, if there was any, that experienced and practical men could not foresee.

The trouble is, that San Francisco companies have not sought here an investment for capital. If they have been deceived, it is because they have not managed as prudent business men ought. They have sent here incompetent men, who have wasted money in works that are worthless; they have not provided means to develop the mines, but sent it forward in driblets, with directions to get out ores and send to San Francisco, with the hope of raising a breeze to fly their kites, instead of sending reliable and competent persons, who were able to estimate the cost necessary to be incurred to make their properties paying concerns, and investing the amount as fast as required to develop them. It is safe to estimate the support and salaries of superintendents at 25 per cent., and useless works at 25 per cent; more of the whole amount expended at mining in Lower California. In Nevada the ignorant could learn from the experienced, which has never been the case here. Unless something is soon done, the result will be a total loss of all the capital that has been invested by San Francisco people in this territory; it is useless for interested persons, ignorant of mining, to come here to examine their properties, for experience proves that they, of all persons, are the easiest humbugged. There are many valuable mining properties in this peninsula owned in San Francisco that are worth far more money than ever has been expended upon them. They would sell at a good price, either in the East or Europe; but not when represented by persons who have failed to work anything out of them. There appears but one feasible course, and that is for the various companies to join in the expense of sending a person of known experience and capacity to examine their properties, and point out the proper mode of development with an estimate of the cost.

The mode adopted by the Mexican company is not cited as the best or most advantageous method of working mines or developing their value, though confessed to be the most economical to secure at a small outlay profitable returns. But of this fact the San Francisco companies may rest assured, there are few, if any mines in Lower California containing ore of sufficient richness to pay the cost of working steam machinery to develop them, and resort to exporting their ores for returns, which always involves a loss of all mineral of less value than $50 per ton; and over $80 when exported to Europe, via San Francisco, as has already been the case with some companies.

It is well known that ores of less value than $50 not only constitute the bulk, but are above the average value of all large silver veins. Not only in Lower California, but elsewhere, where ores of this class are thrown away, dividends go with them sure.

What this country requires is competent and experienced miners, and the erection of extensive reduction works, with sufficient capacity to reduce the ores at reasonable expense. There are now sufficient mines to insure employment to a 100-stamp mill. Ores are allowed to be exported by special license of the Government, which expires when beneficiatory works are erected, the necessity of which is so well understood that important concessions could easily be obtained by parties undertaking to erect them. Such an investment would prove lucrative beyond a doubt. The mines here are as extensive and the ore as rich and abundant as in any other part of the world, the only thing that retards their prosperity is their refractory character. When this difficulty is overcome here, as it has been elsewhere, Lower California will rank second to no other mining country. The cost of transporting machinery from San Francisco to the vicinity of the mines does not exceed $30 per ton. This and other facilities must at no very distant day cause the mines of this peninsula to become favorite investments for mining operators.

Besides the San Antonio and Triunfo mining districts, there have been some very rich mines opened in the district of Cacachilla. These veins, although but a few miles distant from San Antonio, and in the continuation of the same range, yield ores of a different quality, and richer and much less refractory. The most famous mines in this district, are the El Tesoro and San Rafael; both are controlled by San Francisco companies, and unfortunately subjected to the same disastrous management.

GEOLOGICAL.

The geological character of the mining districts of San Antonio and Triunfo, is gneiss, passing into mica slate. That of Cucuchilla, granite intersected with elvan courses of red porphyry. The general course of the mountain ranges is southeast and northwest, and that of the veins from north to south, sometimes varying to a little east of north and west of south. Besides the two main veins of San Antonio and Triunfo, there are numerous other parallel lodes. The continuation of this metalliferous range is to be traced through several islands of the Gulf of California, San Jose, Santa Cruz, Catalan, and Carmen Island, the latter of which, besides its copper veins, which are highly auriferous and argentiferous, is celebrated for its well known and extensive *salinos*, which has been caused by the blocking up of an extensive *estero*, and the subsequent evaporation of the salt-water, which is constantly supplied by infiltration through the porous materials of which the embankment is composed. The mountain masses of this island appear to be composed of indurated sandstone; the others are granite, and besides argentiferous ores, contain some extensive veins of iron.

AVIADOR.

Mining in Montana.

A correspondent of the Virginia City *Enterprise*, writing from Helena City, Montana Territory, January 21st, 1866, says: This Territory has, without an exception, the largest scope of mineral land on the Eastern Slope of the Rocky Mountains, and in places it is very rich in gold placers, but although the country is extensive and very rich in places, and I am already out here with grub enough to last until May, yet I earnestly wish myself back in Virginia. A man, if he takes his chance out here and escapes being frozen or starved to death, has one chance in ten to get a good claim in the spring, and if he is a business man he has five chances in ten to make a fortune, and a big one too. But if he depends on manual labor he has got to work at from six to ten dollars per day for about seven months in the year, and the remaining five months hole up like a bear and eat up what he has earned during the seven laboring months. If he is lucky enough to make a new discovery he has his pile in three months.

Bannock City is the oldest mining town in the Territory, and is noted for quartz, there being several good lodes discovered at that place; but as yet there is no machinery on any of them except one water mill and a few arastras. Alder Creek is seventy-five miles east from Bannock; it is fourteen miles long and is very rich. On the way up it has four towns on it, viz: Junction, Nevada City, Virginia City and Sumait City. There is a great deal of money comes out of this creek. There are also several good quartz lodes being worked in this vicinity which generally pay well. One hundred and thirty miles north of Virginia City is Helena City, at the mouth of Last Chance Gulch, which is seven miles long and very rich. This is fifteen miles from the Missouri river. East of the river is Confederate Gulch, some eight or ten miles long, and as far as it has been tested is very rich. Northwest of Helena, forty miles, is the Black Foot River mines, some of which are extremely rich. McClellan Gulch is the richest in the Territory, but is only a short gulch of four or five miles in length. It is rumored that the Yellowstone and Big Hora rivers and the mountains they drain are also rich in placers, quartz lodes and gold mines. But the winters are perfectly frightful. Only think—we have already had ten days at a time this winter that mercury lay frozen solid in the mercurial tubes of the thermometers.

The prices of groceries here are extravagantly high; flour is from $25 to $35 per 100 pounds; bacon, 75 cents per pound; butter, $2 per pound; sugar, 60@80 cents per pound; potatoes, $25 per 100 pounds, and vegetables of all kinds in proportion; beef, 20 to 30 cents per pound.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Saturday, February 10.

106 shs Ophir at 445@430 per foot.
84 shs Ophir at 440@455 per share, b 30.
48 shs Ophir at 440@330 per share, s 3.
8 shs Gould & Curry at 820 per foot, b 5.
8 shs Gould & Curry at 816 per foot.
shs Savage at 900@920 per foot.
1 sh Savage at 900 per foot, s 3.
7 shs Savage at 905 per foot, b 10.
66 shs Hale & Norcross at 950@890 per ft.
2 shs Hale & Norcross at 950 per ft, b 3.
14 shs Hale & Norcross at 900@930, s 10.
12 shs Hale & Norcross at 900@860, s 3.
4 shs Hale & Norcross at 900 per foot, s 5.
36 shs Alpha, G. H., at 290@285 per foot.
47 shs Yellow Jacket at 405@370 per foot.
16 shs Yellow Jacket at 400@380 per sh, s 3.
6 shs Yellow Jacket at 375@380 per ft, s 10.
1 sh Yellow Jacket at 385 per foot, b 5.
1 sh Yellow Jacket at 380 per foot, b 10.
25 shs Obollar-Potosi at 275@276 per foot.
5 shs Chollar-Potosi at 272 per foot, s 10.
2 shs Belcher at 165 per foot.
3 shs Belcher at 165 per foot, b 3.
60 shs Sierra Nevada at 7½@10½ per sh.
29 shs Sierra Nevada at 10 per share, s 3.
20 shs Bullion at 52 per share.
35 shs Imperial at 115@116 per share, b 30.
18 shs Imperial at 114@113 per share.
10 shs Imperial at 113 per share, s 3.
5 shs Imperial at 113 per share, s 15.
17 shs Overman at 51@48 per share.
13 shs Cal Steam Nav Co at 55@56¼ per ct.
20 shs Cal Steam Nav Co at 55@54, s 3.
Amount of sales.....$132,768 50

Monday, February 12.

20 shs Gould & Curry at 890@850 per foot.
8 shs Gould & Curry at 900@890 per ft, s 10.
9 shs Savage at 900@905 per foot.
8 shs Savage at 900 per foot, s 3.
14 shs Hale & Norcross at 900@935, s 3.
18 shs Hale & Norcross at 935@920 per ft.
2 shs Hale & Norcross at 940 per foot, s 10.
4 shs Hale & Norcross at 900 per foot, s 6.
6 shs Overman at 45 per share.
4 shs Crown Point at 820 per foot. s 5.
20 shs Crown Point at 820@810 per foot, s 3.
4 shs Crown Point at 815 per foot.
2 shs Belcher at 150 per foot.
8 shs Alpha, G. H., at 280@275 per foot.
4 shs Alpha, G. H., at 275 per foot, s 3.
40 shs Daney at 7 per foot.
80 shs Daney at 6¼ per share, s 5.
17 shs Yellow Jacket at 360@350 per ft, s 30.
1 sh Yellow Jacket at 375 per foot, s 10.
11 shs Yellow Jacket at 375@370 per ft, b 10.
9 shs Yellow Jacket at 375@365 per ft.
8 shs Yellow Jacket at 370@365 per ft, s 3.
2 shs Chollar-Potosi at 283 per ft, b 30.
11 shs Chollar-Potosi at at 276@267½ per ft.
204 shs Ophir at 420@405 per foot.
24 shs Ophir at 400 per foot, s 5.
12 shs Ophir at 410 per share, b 30.
30 shs Imperial at 113 per share.
5 shs Imperial at 113 per share, s 3.
140 shs Lady Bryan at 4@3¾ per share.
20 shs Lady Bryan at 3¾ per share, b 3.
15 shs Bullion at 55@52½ per share.
10 shs Bullion at 52 per share, s 3.
10 shs Sierra Nevada at 9 per share.
100 shs Cal Home Ins Co at 101½@101 p ct.
6 shs Cal Steam Nav Co at 55 per cent, s 30
100 sbs Spring Valley W W at 59¾ per cent
$ 5,000 Legal Tender Notes at 72c, s 10.
$ 8,000 S F 6 per cent Bonds of '68, at 71.
3 shs Yellow Jacket at 325@330 per ft, b 5.
15 shs Yellow Jacket at 330@320 per foot
10 shs Yellow Jacket at 310@330 per ft, s 30.
1 shs Yellow Jacket at 320 per foot, s 3.
1 sh Yellow Jacket at 320 per foot, s 10.
1 sh Yellow Jacket at 325 per foot, b 10.
1 sh Yellow Jacket at 325 per foot, b 5.
10 shs Chollar-Potosi at 270 per foot, s 10.
10 sbs Chollar-Potosi at 270@271 per foot.
22 shs Halo & Norcross at 925@960 per foot,
2 shs Hale & Norcross at 960 per sh, b 3.
4 shs Crown Point at 820 per foot.
48 shs Ophir at 395@375 per foot.
96 shs Ophir at 400@405 per foot, b 30.
8 shs Alpha, G H, at 280 per foot, b 30.
8 sbs Alpha, G. H., at 235@240 per foot.
20 shs Imperial at 112½@111 per share.
10 shs Imperial at 110 per share, s 30.
1 sh Empire M & M Co at 210 per sh.
70 shs Sierra Nevada at 9@7¾ per share.
60 shs Lady Bryan at 3¾@3¼ per share.
2 shs Bullion at 53 per share.
$ 9,000 Cal State Bonds at 83 per cent.
Amount of sales.....$119,831 25

Tuesday, February 13.

48 shs Ophir at 400 per foot, b 30.
120 sbs Ophir at 390@410 per share.
12 shs Ophir at 390 per foot, s 3.
12 shs Ophir at 390 per foot, s 10.
48 sbs Gould & Curry at 976@950 per foot.
6 shs Savage at 950@897½ per foot.
4 shs Savage at 900 per foot, b 3.
1 sh Savage at 900 per foot, s 10.
2 shs Savage at 905 per foot, s 3.
26 shs Hale & Norcross at 975@955 per foot.
11 shs Hale & Norcross at 990@995, s 3.
2 shs Hale & Norcross at 990@1000, b 5.
18 shs Yellow Jacket at 365@345 per foot.
1 sh Yellow Jacket at 350 per foot, b 3.
1 sh Yellow Jacket at 345 per foot, b 10.
1 sh Savage at 345 per foot, s 10.
5 shs Yellow Jacket at 345 per foot, s 30.
100 shs Daney at 6¼ per foot.
28 shs Alpha, G H, at 220@230 per foot.
4 shs Alpha, G. H., at 225 per foot, s 3.
4 shs Crown Point at 820 per foot, s 3.
8 sbs Crown Point at 830 per foot.
6 shs Belcher at 140 per foot.
5 shs Belcher at 140 per foot, s 30.
8 shs Chollar-Potosi at 275 per foot.
50 shs Bullion at 53@50 per share.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

San Francisco, Saturday Morning, February 17th, 1866.

The Money Market is abundantly supplied with available capital, and we have rarely had occasion to note so great an accumulation of unemployed means seeking investment, as at this time. Bank rates rule at 1@1¼ ₱ cent per month; but there are borrowers who obtain accommodations, upon first-class collaterals, at 10 ₱ cent. per annum.

Receipts of treasure from domestic sources, since Saturday last, amounted to $850,000, making an aggregate of nearly two millions thus far during the current month.

Bullion continues in some request at full rates, and sales of gold bars have been made at 855@865. Silver is inquired for at about 1 per cent premium for average parcels.

Legal Tender Notes have evinced rather more activity, and some $130,000 were dealt in at the Board within a range of 72@73½c, closing at about 73c bid. Our latest telegraphic advices from the East quote gold in New York at 138½ on the 16th inst.

Transactions at the Board during the week have shown a buoyant market for nearly all leading Mining Shares, which have been well maintained, in view of the large sales and the late rise. The flattering condition of several claims is a subject of congratulation in stock circles, and not only add strength to the whole market, but inspires the hope that the future of these mines will be no less promising.

Gould & Curry, owing to recent developments, has materially improved this week; advancing from $815 to $1,090, receding to $1,060, rallying to $1,075, and selling yesterday at $1,120, buyer 30. At a depth of about 630 feet, and some 200 feet north of the Savage line, the south drift from the second station (D street shaft), penetrated a vein of good ore, a few days since, and it is said that the "indications continue good for a large body." The progress of explorations at this point, as well as in the drift from the fourth station (200 feet still deeper), will be watched with great interest. In the latter, promising indications have also been met with recently.

Savage has been steadily maintained, and is in better favor at the close; rising from $900 to $950, dropping to $897½, advancing to $970, then selling at $990@1,025, and closing yesterday afternoon at $1,030. This mine produced last month 3,200 tons of second-class ore, averaging $41.60 per ton, and 30 tons first-class, netting $170 per ton. The company now pay only $15 per ton for the reduction of second-class ores, and their aggregate shipments of bullion since the first of January have exceeded $210,000. The different levels of the mine are said to look better than at any time during the past six months, and the drift east from the prospecting winze (lower station) shows fine ore. A recent crushing of 25 tons first-class ore yielded the company $300 per ton net, and the second-class ores are also doing better this week.

Hale & Norcross fell from $950 to $860, seller 30, rose to $1,000, buyer 5, receded to $950, rose to $980, and then sold at $990@$985. Advices from this claim are still flattering. In breasting out to the north upon the body of ore found recently, it has widened out to some some 18 feet, and this contains a seam of rich ore three feet in width, which is being sacked for dry crushing. Four mills are now employed, and the last clean up from Todman's yielded $51.80 per ton. The average yield, thus far, of 301 tons, has been $44.48. The total indebtedness of the company at this time, both here and in Nevada, is less than $5,500, and the recent assessment will probably be rescinded.

Crown Point is in better request, steadily advancing from $810 to $905, and selling yesterday at $920@905. During the week ending February 10th, 466 tons of ore were extracted from the mine, nearly all of which came from the lower level. On the vein of the latter the drift has reached the north line. An incline is now under way from the level, and the main shaft is also being sunk for a new station. Receipts of bullion thus far this current month have amounted to $40,000, and it is thought that the company will be entirely out of debt on the 1st proximo.

Yellow Jacket has been active, and some 450 feet changed hands, receding from $405 to $320, advancing to $400, buyer 30, dropping to $360, rallying to $400, declining to $380, and selling yesterday at $385 @460. The total indebtedness of this company, on the 31st ult., amounted to $175,652.91. The mine produced last month 3,346 tons of ore, which yielded $111,794.13—an average of $33.40 per ton. The aggregate debt was reduced $15,880.13 in January, notwithstanding the disbursement of some $12,000 for timber now on hand. During the week ending February 5th, 489 tons of ore were extracted from the mine. Drifting still continues south from the new shaft, but the formation being hard, slow progress is made. Small seams of ore have been met with, and a cross drift will soon more thoroughly test the vein at that point. An assessment of $150 per foot (in gold) was levied on the 12th inst.

Ophir declined from $455 to $390, rose to $430, receded $415, and then sold at $430@$437½, closing at $445. During the first week of the month 106 tons of ore were sent to the Reduction Works, assaying $41 to $400 per ton, or an average of $164 per ton. Most of this ore was taken from the 4th and 5th stations of the South Mine. Receipts of bullion thus far, since 1st inst., amounted to $19,500.

Chollar-Potosi has attracted more attention, and some 350 feet were dealt in, steadily advancing from $272@$275 to $307½, buyer 5, then selling at $302½, and closing at $310. Work has been suspended on the Grass Roots station in order to raise up from below. In that part of the Potosi mine there is said to be some very rich ore, but it is mixed up with porphyry. The Bajazette ground does not look as well as it formerly did, and porphyry has made its appearance in raising up on the face of the slope. From the Second Station, 60 feet below the Potosi tunnel, some very good ore is now taken. During the week ending February 9th, 468¼ tons of ore were sent to the Custom Mills. Upon the new shaft and works but little progress has been made this month.

Alpha declined from $290 to $220, advanced to $290, receded to $245, rose to $260, and sold yesterday at $250@$260. Belcher has been dull and inactive, within a range of $146@$170, closing at $170.

Imperial fell from $116 to $108, seller 10, rose to $113, and sold yesterday at $115½. The reserve of ores on hand have been worked up, but it is thought that both mills can be kept running for some time yet upon ores remaining in the two lower levels. The old shaft has been sunk some 20 feet for a new level, and at 50 feet greater depth a drift will be started to reach the pay portion of the ledge. It will require about three months to accomplish this work. The New Monster shaft is also vigorously under way. The Presideat of this Company, Mr. L. W. Coe has tendered his resignation to the Board, in view of his early departure East. This gentleman has displayed considerable ability as an executive officer, and presided over the affairs of the Imperial Company for a long time with commendable efficiency and zeal. Mr. G. T. Lawton is to be his successor.

Bullion fell from $53 to $50, rose to $62½, declined to $58½, rallied to $60, and was dealt yesterday at $67. An assessment of $10 per share was levied February 10th. Overman fell from $51 to $36, rose to $48, and then sold at $43, closing at $48.

Home Insurance Company was sold at $101½@$100 per share, and is now offered at $100. Fireman's Fund is inquired for at 121 ($12.10 per share). Pacific Insurance can be sold at $164 per share. Union Insurance is held at $120 (80 per ct. paid), and the new National Insurance Co. was sold at 75½.

California State Bonds are held at 89, and San Francisco Co. 6's of '58, brought 71. Cal. Steam Navigation was dealt in at 56½@55 per cent., seller 3, closing at about 58 per cent. bid. Spring Valley Water is higher, and was sold at $59 per share, closing at $59¾ bid.

Fluctuations in Leading Mining Shares for the past Six Months.

Name of Company.	July 10th.	July 20th.	July 30th.	August 10th.	August 20th.	Sept. 1st.	Sept. 10th.	Sept. 20th.	Oct. 1st.	Oct. 10th.	Oct. 20th	Nov. 1st.	Nov. 10th.	Nov. 20th.	Dec. 1st.	Dec. 10th.	Dec. 20th.	Dec. 30th.
Gould & Curry.....per ft.	1,750	1,730	1,600	1,500	1,476	1,135	1,300	1,240	1,250	1,000	1,015	1,010	1,100	875	975	940	860	916
Ophir.....	485	530	425	400	390	280	385	415	340	515	380	425	392	340	370	250	350	370
Savage.....	1,400	1,310	1,115	1,220	1,300	1,300	1,225	1,215	1,225	1,075	930	900	765	625	670	650	960	830
Potosi.....	350	395	430	405	460	440	420	416	472	435	355	350	....	....	....	....	....	....
Chollar.....	570	410	500	490	500	476	455	420	500	480	370	375	368	270	249	130	125	176
Hale & Norcross.....	555	570	525	520	510	480	520	550	750	475	325	305	205	155	150	170	125	280
Sheba.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Daney.....	....	14	....	50	70	43	40	40	35	30	15	10	15	8	....	....	....	....
Wide West.....	8	6	....	....	....	....	....	....	6	....	....	....	....	....	....	....	....	....
Burning Moscow.....	29	25	29	25	34	23	20	5	....	....	....	....	....	....	....	....	....	....
Pride of the West.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bullion.....	175	180	175	167	176	160	....	125	126	125	70	62	67	38	35	32	22	37
Real del Monte.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Overman.....	342	305	200	241	213	190	155	170	175	160	100	95	62	42	43	23	35	65
Sierra Nevada.....	10	14	25	20	18	19	22	21	17	22	12	10	12	8	6½	9	3	10
Yellow Jacket.....	1,115	1,105	1,220	1,350	1,355	1,420	1,460	1,405	1,345	1,110	720	780	670	620	535	235	425	530
White & Murphy.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sides.....	75	60	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Uncle Sam.....	345	307	190	240	215	193	185	....	....	....	....	....	....	....	....	....	....	....
Baltic.....	20	16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
North American.....	35	42	35	30	29	24	16	....	....	....	....	....	....	....	....	....	....	....
Baltimore American.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Meloneas.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Antelope.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Napoleon.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacramento.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Utah.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lady Bryan.....	6	6	....	6	3	....	....	....	....	....	....	....	....	....	....	....	....	....
Imperial.....	245	218	227	230	255	252	250	221	232	210	174	183	157	150	120	85	100	133
Crown Point.....	800	910	905	990	1,250	1,120	1,115	1,150	1,130	1,025	760	760	720	830	700	490	460	540
Belcher.....	775	850	805	860	865	875	900	910	875	630	400	485	400	300	265	245	160	175
Alpha.....	1,400	1,470	....	1,425	1,500	1,925	1,950	2,100	2,200	1,700	1,000	1,010	790	930	740	600	140	240

19 shs Overman at 41@36 per foot.
10 shs Overman at 38 per share, b 5.
40 shs Spring Valley W W at 59 per cent.
1 sh Cal Stem Nav Co at 66 per cent.
$10,000 Legal Tender Notes at 72¾c, s 30.
$10,000 Legal Tender Notes at 72¾@73c.

AFTERNOON SESSION.

1 sh Yellow Jacket at 357½ per foot.
1 sh Yellow Jacket at 363 per foot.
1 sb Yellow Jacket at 380 per foot, b 10.
8 shs Yellow Jacket at 380 per foot.
1 sb Yellow Jacket at 375 per foot.
1 sh Yellow Jacket at 380 per foot, b 10.
3 shs Yellow Jacket at 380 per foot, b 5.
4 shs Yellow Jacket at 380@385 per ft, b 9
10 shs Yellow Jacket at 385 per foot
2 shs Yellow Jacket at 390@395 per ft, b 9.
4 shs Yellow Jacket at 400 per foot, b 30.
2 sbs Yellow Jacket at 385 per foot, s 3.
2 shs Yellow Jacket at 386 per foot.
1 sh Yellow Jacket at 375 per foot, s 30.
2 shs Yellow Jacket at 390 per share, b 3.
16 shs Alpha, G. H., at 250@245 per foot.
8 shs Gould & Curry at 1000@8005 per foot.
4 shs Gould & Curry at 1000 per ft, s 3.
8 shs Gould & Curry at 1010 per foot.
4 shs Gould & Curry at 1000 per foot, s 6.
3 shs Savage at 930@920 per foot, s 3.
3 shs Savage at 920@930 per foot.
2 shs Hale & Norcross at 995 per foot.
2 shs Hall & Norcross at 992½ per foot.
4 shs Crown Point at 850 per foot.
12 shs Ophir at 425 per foot.
5 shs Chollar-Potosi at 76 per foot.
11 shs Chollar-Potosi at 277½ per foot.
3 shs Chollar-Potosi at 280 per foot, s 6.
5 shs Chollar-Potosi at 280 per foot.
19 shs Imperial at 108 per share.
10 shs Imperial at 107 per share, s 30.
6 shs Imperial at 108 per share, s 10.
20 shs Blue Ledge at 3 per share.
20 shs Lady Bryan at 3¼ per share.
5 shs Overman at 41 per foot.
Amount of sales.....$164,648 50

Wednesday, February 14.

20 shs Gould & Curry at 1050@1090 per foot.
2 shs Gould & Curry at 900 per foot.
20 sbs Gould & Curry at 1050 per foot, s 3.
1 sh Savage at 975 per foot, b 10.
13 sbs Savage at 940@970 per foot.
3 shs Savage at 945@950 per foot, b 10.
1 sh Savage at 948 per foot, s 5.
33 shs Chollar-Potosi at 290@285 per foot.
5 shs Chollar-Potosi at 285 per foot, s 10.
6 shs Chollar-Potosi at 287 per foot, b 3.
6 shs Chollar-Potosi at 283 per foot, s 30.
6 shs Yellow Jacket at 380@370 per ft, s 30.
4 shs Yellow Jacket at 375@370 pr ft, s 3.
10 shs Yellow Jacket at 375@370 per foot.
5 shs Yellow Jacket at 380 per foot, b 30.
5 shs Yellow Jacket at 360 per foot, s 30.
8 shs Crown Point at 860@865 per foot.
8 sbs Crown Point at 880 per foot, s 3.
12 shs Ophir at 425 per foot, s 10.
36 shs Ophir at 430 per foot, s 3.
12 shs Ophir at 430 per foot, b 3.
36 shs Ophir at 425 per foot, b 30.
12 shs Ophir at 415 per foot.
16 shs Alpha, G. H., at 250@270 per ft, b 10.
68 shs Alpha, G H, at 240@260 per foot,
4 shs Alpha at 245 per foot, s 6.
8 shs Hale & Norcross at 950@960 per foot.
10 shs Exchequer, at 6 per share
16 shs Imperial at 112 per share, b 3.
10 shs Imperial at 112 per share.
5 shs Bullion at 53 per share.
20 shs Lady Bryan at 3 per share, b 3.
120 shs Lady Bryan at 2¾@2¼ per share
$15,000 Legal Tender Notes at 72¾@72½c.

AFTERNOON SESSION.

20 shs Daney at 6¼ per share.
4 shs Hale & Norcross at 970 per foot.
8 shs Hale & Norcross at 960 per foot.
2 shs Hale & Norcross at 970 per foot, b 30.
2 shs Hale & Norcross at 950 per sh, s 3.
8 shs Crown Point at 885 per foot.
4 shs Crown Point at 870 per share.
4 sbs Crown Point at 875 per foot.

4 shs Crown Point at 800 per foot.
32 shs Crown Point at 900 per foot.
1 sh Yellow Jacket at 370 per foot.
1 shs Yellow Jacket at 360 per foot, s 30.
3 shs Yellow Jacket at 365 per foot.
1 sh Yellow Jacket at 360 per foot, s 3.
6 shs Chollar-Potosi at 208 per foot.
3 shs Savage at 930 per foot.
2 shs Savage at 960 per foot.
1 sh Savage at 970 per foot.
4 shs Savage at 965 per foot.
1 sh Savage at 960 per foot, s 3.
4 shs Savage at 965 per foot, s 3.
8 shs Alpha at 250 per foot.
8 shs Gould & Curry at 1060 per foot.
15 shs Exchequer at 6 per share.
9 shs Bullion at 57@58 per share.
85 shs Bullion at 60@58 per share.
28 shs Bullion at 61@62½ per share.
3 shs Imperial at 112 per share.
5 shs Imperial at 112½ per share.
20 shs Imperial at 112½ per share, b 5.
78 shs Lady Bryan at 2½ per share, s 3.
10 shs Lady Bryan at 3 per share.
35 shs Sierra Nevada at 8 per share.
5 shs Overman at 41 per foot.
50 Cal Home Ins Co. at 100 per cent.
Amount of sales.....$148,632 00

Thursday, February 15.

48 shs Ophir at 440@445 per foot.
12 shs Ophir at 420 per foot, b 30.
3 shs Savage at 965@970 per foot.
6 shs Savage at 970@960 per foot, s 30.
1 sh Savage at 970 per foot, b 10.
20 shs Chollar-Potosi at 220@208 per foot.
19 shs Chollar-Potosi at 305@300 pr ft. b 30
5 shs Chollar Potosi at 300 per foot, b 10.
8 shs Yellow Jacket at 400@287½ per ft.
5 shs Yellow Jacket at 400 per fool, b 3.
4 shs Yellow Jacket at 400@395 per tt, s 3.
1 sh Yellow Jacket at 390 per foot, s 20.
7 shs Yellow Jacket at 390@395 per ft, s 3.
6 shs Yellow Jacket at 405 per foot, b 30.
7 shs Yellow Jacket at 385 per ft, s 3.
13 shs Overman at 48 per foot.
8 shs Crown Point at 900 per foot.
8 shs Crown Point at 900 per foot, s 3.
8 shs Crown Point at 900 per foot, s 5.
80 shs Daney at 7 per foot.
16 shs Hale & Norcross at 970@980 per ft.
2 shs Hale & Norcross at 980 per foot, b 10.
12 shs Alpha, G. H., at 250@245 per foot.
4 shs Gould & Curry at 1060 per foot.
2 shs Belcher at 165 per foot.
2 shs Belcher at 165 per foot, s 5.
140 shs Exchequer at 6½@6¾ per foot.
15 shs Imperial at 113@113½ per share.
10 shs Imperial at 112 per share s 30.
25 shs Sierra Nevada at 8@8¼ per sh.
40 shs Bullion at 58@60 per share.
15 shs Bullion at 58 per share, s 3.
5 shs Bullion at 58 per share, s 10.
8 shs Bullion at 60 per share, b 30.
5 shs Bullion at 58 per share, s 30.
20 shs Wide West at 10 per share.
$10,000 Legal Tender Notes at 73c, b 20.
$15,000 Legal Tender Notes at 72⅞@72⅝c.

AFTERNOON SESSION.

16 shs Alpha, O. H. at 255 per foot.
24 shs Alpha, O. H. at 255@260 per ft.
10 shs Hale & Norcross at 990@985 per ft.
2 shs Yellow Jacket at 390@385 per foot.
1 sh Yellow Jacket at 380 per foot, b 3.
2 shs Yellow Jacket at 375@377½, a 10.
6 shs Yellow Jacket at 380 per foot.
5 shs Overman at 52½ per foot, b 30.
5 shs Overman at 48 per toot.
5 shs Overman at 47 per foot.
10 shs Overman at 50 per foot, b 30.
15 shs Overman at 43 per foot.
10 shs Overman at 42½ per foot.
1 sh Savage at 1000 per foot, b 33.
24 shs Ophir at 425 per foot.
156 shs Ophir at 420 per foot.
12 shs Ophir at 422½ per foot.
6 shs Ophir at 410 per foot, s 15.
12 shs Ophir at 425 per foot, s 5.
5 shs Chollar-Potosi at 295 per foot, s 30.
2 shs Chollar-Potosi at 300 per foot, b 10.
20 shs Chollar-Potosi at 300 per foot, b 3.
5 shs Chollar-Potosi at 300 per foot, s 30.
2 shs Chollar-Potosi at 304 per foot.
5 shs Chollar-Potosi at 307½ per foot, b 10.
1 sh Chollar-Potosi at 303 per foot.
1 sh Belcher at 165 per foot, s 3.
1 sh Belcher at 170 per foot.
4 shs Crown Point at 900 per foot.
10 shs Lady Bryan at 3 per share, s 3.
40 shs Lady Bryan at 3¼ per share.
20 shs Exchequer at 6½ per share.
20 shs Wide West at 10 per share, s 5.
10 shs National Ins Co at 75½ per cent.
$5,000 Legal Tender Notes at 72¾c.
Amount of sales.....$153,638 25

Friday, February 16.

11 shs Savage at 980@1230 per foot.
6 shs Savage at 1025 per foot.
31 shs Yellow Jacket at 380@400 per foot.
27 shs Yellow Jacket at 395@410 per ft.
19 shs Yellow Jacket at 415@426 per foot.
3 shs Yellow Jacket at 416@418, s 30.
54 shs Chollar-Potosi at 300@302 per foot.
7 shs Chollar-Potosi at 300 per foot, s 30.
5 shs Chollar-Potosi at 308 per foot, b 30.
26 shs Chollar-Potosi at 302½ per foot.
4 shs Crown Point at 920 per foot.
13 shs Empire M & M Co. at 180 per sh.
35 shs Imperial at 112@113½ per share.
201 shs Ophir at 425 per foot.
48 shs Ophir at 425 per foot, b 30.
20 shs Lady Bryan at 3¼ per share.
150 shs Sierra Nevada at 8½@8 per sh.
65 shs Bullion at 65@66 per share.
48 shs Alpha, O. H., at 230@255 per foot.
2 shs Cal Steam Nav Co at 57 per cent.

AFTERNOON SESSION.

40 shs Imperial at 115@113½ per share.
4 shs Gould & Curry at 1120 per foot, b 30.
96 shs Ophir at 430@437½ per foot.
99 shs Ophir at 440@445 per foot.
34 shs Chollar-Potosi at 310@305 per foot.
10 shs Chollar-Potosi at 315 per foot, b 30.
21 shs Chollar-Potosi at 31u per foot.
7 shs Yellow Jacket at 445@446 per share
8 shs Yellow Jacket at 430@440 per ft, s 10.
8 shs Hale & Norcross at 990@995 per ft.
40 shs Crown Point at 910@915 per foot.
6 shs Savage at 1030 per foot.
12 shs Alpha, G H, at 250 per foot.
21 shs Exchequer at 7 per share.
15 shs Overman at 48@50 per foot.
170 shs Bullion at 65@67 per share.
20 shs Bullion at 70 per share, b 30
7 shs Empire M & M Co. at 180@171½.
$60,000 Legal Tender Notes at 75@73½c.
Amount of sales.....$192,363 25

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinqnent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment, Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	DAY OF SALE.
Animas, Durango, Mex.,	40c	Feb 3	Feb 19*
Alpha, Storey co., Nev.,	$50	Jan 18	Feb 17
Blue Ledge, Lander co.,	$1	Feb 3	Feb 19*
Bullion		Sale	Feb 17
Boston Copper,	50c	Mar 3	Mar 20
Consolidated Silver Hill M Co., Nov.,	$2	Feb 17	Mar 3*
Capitola,	20c	Feb 8	Feb 22
Calcelonia Tunnel, Gold Hill, Nev.,	$2	Dec 23	Feb 3
Confidence, Storey co., Nev.,	$25	Jan 22	Feb 16
Comet Petroleum co.,	30c	Feb 24	Mar 8
Cassell, Nevade co., Cal.,	$5	Feb 20	Mar 8
Cole, Storey co., Nev.,	$1	Mar 15	Mar 31
Chipionca, Sonora, Mex.,	$5	Mar 14	Mar 26
Capital		Meeting	Feb 26
Daney, Lyon co., Nev.,	50c	Mar 5	Mar 26
Evoca, Del Norte co., Cal.,	25c	Mar 3	Mar 19*
Emerald Copper,	$1	Feb 10	Feb 24
Elk Horn, Petroleum,	50	Feb 7	Feb 23
El Taste, Sonora, Mex.,	$2	Feb 26	Mar 10
Hanscom, Copper, Del Norte co.,	15c	Feb 24	Mar 10*
Halo & Norcross, Storey co., Nev.,	$25	Mar 5	Mar 19
Iowa, Storey co., Nev		Meeting	Feb 22
"I.X.L.," Alpine co., Cal.,	$2.50	Mar 5	Mar 19
Keokuk, Contra Costa co., Cal.,	10c	Mar 17	Mar 31*
Kearsarge		Feb 17	Mar 15*
Kentuck, Storey co., Nev.,	$7 50	Mar 6	Mar 24
Jewett, Storey co., Nev.,	$1	Mar 3	Mar 20*
Jeffrey Oil,	50c	Feb 19	Mar 3
Leland, Arizona,	50c	Mar 3	Mar 19*
Lady of the Lake, Arizona		Mar 3	Mar 19*
London Quartz,	50c	Feb 20	March 10
La Fernandez, Sonora, Mex.,	$5	Mar, 1	Mar 15
Maggie, Lander co., Nev.,	$5	Feb 14	Mar 3
Morning Star, Alpine co.,	$1	Mar 3	Mar 19
Napoleon, Calaveras co.,	$7	Feb 13	Feb 23
Nouparell,	$1	Feb 20	Mar 10
Oxford Beta, Esmerulda co., Nev.,	50c	Feb 17	March 3*
Owen's River Canal co.,	40c	Feb 3	Feb 19*
Overman, Storey co., Nev.,	$10	Feb 9	Feb 26
Providence, Nevada co., Cal.,	$1	Mar 17	Mar 31*
Planet, Copper		Meeting	Feb 22
Refugio, Chihuahua, Mex.,	$2½	Feb 10	Feb 24
Rodgers, Storey co., Nev.,	$3	Feb 27	Mar 12
Southern Light, Lander co., Nev.,	$12 50	Mar 10	Mar 26*
Santiago, Lyon co., Nev.,	$1	Feb 1	Feb 20
Sierra Valley, Plumas co., Cal.,	$1	Mar 5	Mar 17
Sierra Silver, Douglas co., Nev.,	$3	Mar 9	Mar 23
Salambo Copper,	50c	Mar 17	April 5
Tuolumne Mountain,	50c	Feb 10	Feb 26
United States, Storey co., Nev.,	50c	Mar 17	Mar 31*
Wide West, Alpine co.,	$3	Feb 3	Mar 2*
Yuba, Brown's Valley,	$3	Feb 3	Feb 17*
Yellow Jacket, Storey co., Nev.,	150	Mar 17	April 17

*Those marked with an asterisk (*) are advertised in this journal.

ASSESSMENT AND SALE LIST

OF CLAIMS IN

VIRGINIA AND GOLD HILL DISTRICTS,

CORRECTED WEEKLY FROM LATEST DATES OF THE TERRITORIAL ENTERPRISE.

This list embraces Companies advertised in Virginia City papers, most of which are not incorporated or advertised in San Francisco.

Assessment Levied.

Name of Company.	Date of Levy.	Am't per foot
California Consolidated	Jan 5	1 00
Globe	Dec 24	1 00
Overman	Jan 9	10 00
Peck	Jan 3	1 00
Rodgers	Jan 23	10 00

Delinquent Sales.

Name of Company.	Date of Sale.	Place of Sale.
Bullion	Feb 27	Virginia
Alpha	Feb 17	Gold Hill
Coercion	Feb 19	Virginia
Globe	Feb 23	Virginia
McMeans & Williams	Feb 20	Virginia
North Comstock	Feb 24	Virginia

RATES OF FARE.—The Pacific Mail Steamship Company have fixed the following tariff for tickets to New York by their steamer Golden City, to sail on the 19th instant: First cabin, outside rooms, $210; do. inside, $167; second cabin, $75; steerage, $40.

MINING DECISION.—Judge Garter recently decided a case in Shasta, that the building of a ditch across claims under injunction, for the purpose of working claims below, did not violate or show contempt of the Court's decree.

One that knows how to read can bear all past generations talk; and one that knows how to write can talk to all generations to come

San Francisco Stock and Exchange Board.

SAN FRANCISCO, Feb. 16, 1866

	Bid.	Asked.
United States 7 3-10ths	$ 73	$ 73¼
Gov. Legal Tender Notes	72¾	73
State Bonds, 7 ₱ cent	86½	87
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	67	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	50	55
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	60	..
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	65	80
California Navigation Co	67	68
State Telegraph Stock	22	..
San Francisco Gas Co	105	106
Sacramento Gas Co	..	75
Spring Valley Water Co	59½	60
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	44	45
Central Railroad Co	..	65
North Beach and Mission	45¼	..
MINING STOCKS.		
Ophir	$ 425	$ 430
Gould & Curry	1050	1070
Empire M. & M. Co	190	200
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	1025	1050
Chollar-Potosi	302	305
Hale & Norcross	980	990
White & Murphy	....	....
Sierra Nevada	8	9
Yellow Jacket	425	430
Overman	52	53
Cedar Hill Tunnel	....	....
Wide West	7	10
Crown Point	925	930
Antelope	....	....
Emeralda	1	5
Aetna	....	....
Real del Monte	..	15
Bullion, G. H.	05	05
Buckeye	....	....
Dick Sides	....	....
Imperial	113	113½
Alpha	260	265

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	8 50	@	7 25
Do Superfine	6 75	@	7 00
Corn Meal, ₱ 100 lb		@	3 50
Wheat, ₱ 100 lb	2 10	@	2 25
Oats, choice, ₱ 100 lb	2 05	@	2 10
Barley, ₱ 100 lb	1 10	@	1 15
Beans, ₱ 100 lb	4 50	@	5 50
Potatoes, ₱ 100 lb	1 05	@	1 15
Hay, ₱ ton	11 00	@	18 00
Live Oak Wood, ₱ cord	8 00	@	10 00
Beef, on foot, ₱ lb	6@		7
Beef, extra, dressed, ₱ lb	12½@		15
Sheep, on foot,	1 00	@	2 00
Hogs, on foot, ₱ lb	9	@	10
Hogs, dressed, ₱ lb	13	@	14
Groceries, Etc.			
Sugar, crushed, ₱ lb	16	@	—
Do Chiua	10	@	12½
Coffee, Costa Rica, ₱ lb	—	@	27
Do Rio	26	@	—
Tea, Japan, ₱ lb	85	@	1 00
Do Green	70	@	1 00
Hawaiian Rice, ₱ lb	10	@	—
China do	7	@	8
Coal oil, ₱ gal	1 10	@	1 25
Candles, ₱ lb	24	@	27
Ranch Butter, ₱ lb	55	@	60
Isthmus do	35	@	40
Cheese, California, ₱ lb	20	@	26
Eggs, ₱ doz	45	@	—
Lard, ₱ lb	22	@	23
Ham and Bacon, ₱ lb	25	@	—
Shoulders	20	@	22
Soap—Pale & C. O	10	@	12
Castile		@	14

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	50	@	70
do pickled ₱ lb	—	@	—
do Oregon	35	@	40
do New York, ₱ lb	45	@	50
Cheese, ₱ lb	22½	@	25
Honey, ₱ lb	30	@	40
Eggs, ₱ doz	50	@	60
Lard, ₱ lb		@	26
Hams and Bacon, ₱ lb	28	@	30
Cranberries, ₱ gal	75	@	—
Potatoes, sweet, ₱ lb	8	@	—
do Irish, ₱ lb	1	@	2½
Tomatoes, ₱ lb	5	@	8
Onions, ₱ lb	4	@	6
Apples, No. 1, ₱ lb	8	@	10
Pears, table ₱ lb	3	@	10
Plums, dried, ₱ lb	15	@	25
Peaches, dried, ₱ lb	16	@	25
Grapes, ₱ lb	5	@	15
Oranges, ₱ doz	62	@	75
Lemons, ₱ doz	1 25	@	1 50
Chickens, apiece	87	@	1 12

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

SAN FRANCISCO, Feb. 16, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railriad 60c ₱ 100 lb; Bar 1@1½c. ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@1¾c ₱ lb; Plate 1¼c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.			
Scotch and English Pig ₱ ton	70	@	75
American Pig ₱ ton	60	@	65
Refined Bar, bad assortment, ₱ lb	3	@	—
Refined Bar, good assortment, ₱ lb	3½	@	—
Boiler No. 1 to 4	4	@	5
Plate No. 5 to 9	4½	@	6
Sheet No. 10 to 13	4	@	—
Sheet No. 14 to 24	5	@	—
Sheet No. 24 to 27	5½	@	—
COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb			
Sheathing ₱ lb	36	@	38
Sheathing, Old	20	@	30
Sheathing, Yellow	35	@	37
Sheathing, Old Yellow	12	@	13
Bolts	13	@	18
Composition Nails	30	@	32
TIN PLATES.—Duty: 2½c ₱ lb.			
Plates, Charcoal, IX ₱ box	14	@	15
Plates, I C Charcoal	12	@	13
Roofing Plates	11	@	12
Banca Tin Slabs, ₱ lb	30	@	35
STEEL.—English Cast Steel, ₱ lb	12½	@	16
QUICKSILVER.—Per lb	—	@	65
For export	55	@	—
ZINC.—Sheets ₱ lb	9½	@	10
LEAD.—Pig ₱ lb	8	@	—
Sheet	10	@	12
Pipe	10	@	12
Bar	9½	@	10
BORAX—California, ₱ lb	20	@	23

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, Mr. TORNER HAMILTON, at the Assembly Building, 108 South Tenth street, Philadelphia, Pa., where samp copies of our publications can always be found.

MINING BLANKS

For Sale

AT THE

OFFICE OF THE MINING AND SCIENTIFIC PRESS

No. 505 Clay Street, corner of Sansome.

Blanks for Mining Companies, Secretaries, Shareholders and others, always on hand, or printed to order, at our office.

Among others are those of the following forms:

Shareholder's Proxy.

Know all men by these presents, that I, ... do hereby constitute and appoint ..... my attorney and agent, for me and in my name, to vote as my proxy, at a meeting of the ..... Mining Company, to be held ..... 186 ", according to the number of votes that I should be entitled to cast were I there personally present.

In witness whereof I have this day hereunto set my hand and seal. .....[Seal]

Dated ..... 186 "

Assessment Notice.

..... Company

.....

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ..th day of ..... 186 , an Assessment of ..... per share was levied upon the Capital Stock of said Company, payable on the ..th day of ..... 185 , in United States gold and silver coin to the Secretary.

Any stock upon which said Assessment shall remain unpaid on Saturday, the ..th day of ..... 186 ", will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on ....., the ..th day of ....., 186 , to pay the delinquent Assessment, together with the costs of advertising and expenses of the sale. By order of the Board of Trustees.

..... Secretary.

Office.....

Notice.—There are delinquent, upon the following described Stock, on account of assessment levied on the ..th day of ..... 186 , the several amounts, set opposite the names of the respective shareholders as follows, to wit:

Names.	No. Certificate.	No. Shares.	Amount.
Theophilus Thistle	23	14	$140 00
Peter Pipe	2	3	30 00

And in accordance with law and an order of the Board of Trustees, made on the ..th day of ..... 186 , so many shares of each parcel of said stock as may be necessary, will be sold at the .....

....., on ....., the ..th day of ....., 186 , at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

..... Secretary.

Office.....

☞ Our advertisers are furnished with blank Assessment Sale notices free of charge. Orders from the interior promptly filled, by mail or express, as may be desired.

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of ALVA L. STILES, deceased. Order to show cause why order of sale of real estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by John M. Silles, the Administrator of the estate of Alva L. Stiles, deceased, praying for an order of sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts, expenses and charges of administration that have already accrued, and the debts, expenses and charges of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said Administrator to sell so much of the real estate of the said deceased, as shall be necessary for the purposes abovementioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Courts for said City and County, do hereby certify the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, cancelled. [Seal.] } WM. LOEWY, Clerk.

By A. J. JEGHERS, Deputy Clerk.

THOS. B. BISHOP, Attorney. 2v12-4w

IN THE PROBATE COURT OF THE CITY AND COUNTY of San Francisco, State of California. In the matter of the Estate of SAMUEL L. DENNISON, deceased. Order to show cause why Order of Sale of Real Estate should not be made.

It appearing to the said Court, by the petition heretofore presented and filed by C. E. McNear and Patrick Scully, who are creditors of said Estate of Samuel L. Dennison, deceased, praying for an order of Sale of real estate, that it is necessary to sell the whole, or some portion of the real estate of said deceased, to pay the debts outstanding against said deceased, the debts, expenses, and charges of administration that have already accrued, and the debts, expenses, and charges, of administration that will or may accrue during the administration of said estate.

It is therefore ordered by the said Court, that all persons interested in the estate of said deceased, appear before the said Probate Court on WEDNESDAY, the fourteenth day of February, A. D. 1866, at eleven o'clock in the forenoon of said day, at the Court Room of said Probate Court, at the City Hall, in said City and County, then and there to show cause why an order should not be granted to the said petitioners, authorizing and requiring the Administratrix of said estate to sell so much of the real estate of the said deceased, as shall be necessary for the purposes abovementioned: And that a copy of this order be published at least four successive weeks in the Mining and Scientific Press, a newspaper printed and published in said City and County, and that a citation issue to Maria J. Dennison, the Administratrix of said estate, and be served upon her at least four weeks prior to the time above-mentioned for said hearing.

M. C. BLAKE, Probate Judge.

Dated January 11th, 1866.

Office of the County Clerk of the City and County of San Francisco—I, Wm. Loewy, County Clerk of the City and County of San Francisco, State of California, and ex-officio Clerk of the Probate Court in and for said City and County, do hereby certify the to the foregoing to be a true and correct copy of an order duly made and entered upon the minutes of said Probate Court.

Witness my hand, and the seal of said Probate Court, this eleventh day of January, A. D. 1866.

{ U. S. Int. Rev. Stamp, 5 cts, cancelled. [Seal.] } WM. LOEWY, Clerk.

By A. J. JEGHERS, Deputy Clerk.

PORTER & HOLLADAY, Attorneys for Petitioners. 2v12-4w

Mining Summary.

CALIFORNIA.

PLUMAS.—The Quincy *Union* of the 3d inst. says that the new smelting furnaces at Genesee Valley were fired up, for the first time, one day this week. A quantity of copper ore was smelted, and the furnaces worked to a charm. The company think they have got "the thing gaited," and we hope they have.

W. A. Bolinger has purchased the interest of J. A. Blood in the Crescent Quartz company, of Indian Valley. Mr. Blood owned 166 shares.

BUTTE.—The proprietor of the National Hotel, at Oroville, digging a well struck gravel at the depth of seven or eight feet, which has panned out half a dollar to the bucket.

SIERRA.—The *Messenger* says: "For the week ending Tuesday evening last, we had mild, rainy weather, and the disappearance of snow has been rapid in the extreme. Though usually at this season a warm rain is looked upon with disfavor, this last has, we hear, started water all over the county, with a prospect of a continuous and bounteous supply. We think the diggings all through this range were never in better condition, nor the harvest of gold more promising than now.

ALPINE.—The *Chronicle* says that the hardy pioneers of Alpine county are slowly, but surely, being recompensed for years of patient industry, and one by one their claims are exposing deposits of rich ore. A few days since a ledge of valuable ore was struck in the Mullen Company's tunnel, at Mogul. The ledge is six feet in width, and the ore is a decomposed white quartz, and assays, after careful sampling, $38 to the ton in silver. It contains no gold, and scarcely a trace of copper. It is the intention of the company to send their ore to the Pioneer Quartz mill and keep it running steadily. "Little Mogul" bids fair to be the first district in Alpine county, having a claim sufficiently developed to keep a mill supplied with ore. The Pioneer Quartz Mill is said to be one of the best appointed mills of its size on the East side of the mountains. The Monitor *Gazette* says that Mr. Coffey, one of the principal owners of the Sherman, is at work developing the same, and with excellent prospects. The Santa Eulalia company is steadily at work, and expect to pierce their ledge after running their tunnel forty-five feet further.—The ledge is said to be eighty feet thick. The Morning Star Company expect to reach their shaft with the tunnel inside of two weeks, when a large quantity of ore will be within reach. The American T. & S. M. Co., having run their tunnel 200 feet, have struck a body of arsenical pyrites or mundic, so friable that it rapidly falls to pieces on exposure to the air. The indication is considered a good one.

In the Silver Mountain District, a meeting of the stockholders of the Buckeye Co. No. 1, was held on the 5th inst., to take into consideration the propriety of leasing the mine. It was voted to do so. Work is going ahead on the Mountain, Pennsylvania, Washington, and Buckeye No. 2. The Lady Franklin company has suspended operations until they can get over machinery to put on the shaft.

NEVADA.—A quantity of rock, consisting of a hundred tons or more, from the Talbert ledge, Willow Valley, now being crushed at the Oriental mill, promises to yield fully $50 to the ton. It is the intention of the company to erect steam hoisting works on the ledge.

John Spayth, some two weeks since, says the *Gazette*, discovered a quartz ledge, about ten miles above Nevada, on Deer Creek, which is likely to prove one of the most valuable in the county. On his return to Nevada, he brought a specimen, which, on being pounded up and washed out, yielded $640.75. The specimen was nearly pure gold. Spayth has organized a company, and returned with his partners to further prospect and stake off the claim. The ledge is said to be twelve feet in width. The exact locality of the discovery has not been made public.

The excellent mill, constructed for the Star Spangled Banner company, has been started up. It consists of ten stamps at present, but arranged for ten more, driven by a 40-horse power engine. The sulphurets are concentrated and subsequently worked in one of Hopkins' pans. The company will also have their new hoisting and pumping works in operation in a few days, after which the mill will be fully supplied with rock.

At Grass Valley, considerable trouble is experienced by reason of the bad condition of the roads, in consequence of which it is difficult to keep up the supply of wood, and the mills at a distance from the mines have the additional difficulty in getting rock.

The *Union* is informed that the Watt Bros. have purchased a half interest in the mining claim known as the Rush and Laton ground, on Ophir Hill; a first extension south, of the celebrated Ophir Lead, owned by Messrs. Lee and Houston. They will erect an extensive mill upon the mine at an early day.

The Watt Brothers have sold their interest in the old mine and mill, on Massachusetts Hill, to the Stockbridge Co. The portion of the mine owned by the Watts' having been taken up in superficial claims, has been worked out, and the Stockbridge company coming in next have bought their improvements, with which to work *their* ground. An offer equivalent to a total valuation of $80,000 for the entire Stockbridge mine, was recently offered and refused by the latter.

It is reported that the Allison Ranch is now turning out gold in almost fabulous quantities. The rock being crushed is taken from a depth of seven hundred feet, and yields at the rate of $1,800 a ton! The yield of the rock crushed in the mill, for the past month, is said to have been at the rate of $200,000 a week—that amount having been cleaned up each Saturday night, for four weeks past. At this rate, the mine would turn out ten million dollars per year!

Excelsior District.—The Virginia *Union* says that the owners of the Enterprise claim, in this district, are prosecuting the work of taking out their rich paying rock very lively. Quite a hole has been made in their old starting place, a shaft some forty feet deep having been sunk in it, at the bottom of which better ore than ever has been obtained. Another shaft has been commenced west of the old one, striking, at a depth of ten feet, the same quality of rich ore. The company's mill, being put up by Messrs. Goss & Lambert, of Sacramento, will be finished and in running order in the course of fifty days, and then we may expect to hear of such a yield of the precious metal as will astonish us, as the rock assays high up in the pay figures. Few leads have been located in Excelsior District which prospect less than $20 per ton; which ore can be mined and worked there for less than half that sum. Waters & Co. made an assay a day or two ago of rock from the Daniel Webster claim, which yielded at the rate of $8,454 06 to the ton. A sample of rich picked rock, of course.

TUOLUMNE.—The Tuolumne *Courier* seems jubilant over the prospects "there and thereabouts." That paper learns that a company on Pacific Flat (Blue Gulch), near Algerine, last week, had the good fortune to come across a quartz lead which showed nearly as much gold as quartz. The lucky fellows have already taken out several thousand dollars, and still continue the pleasing pastime; much more of the stuff being in sight. Last Saturday, a Mexican prospecting on Whisky Hill, below Jamestown, struck a pocket and in a few hours took out a panful of very rich specimens. On Wednesday, a miner on Wood's creek picked up a chispa worth twelve dollars. We also have heard of a streak of luck that some gentlemen of Sonora have fallen into, but are requested not to make the matter public at present.

The Mount Vernon mine, in this county, on Friday, February 2d, cleaned up $6,000 as the product of eleven days' work.

CALAVERAS.—The San Andreas *Register* says that P. A. Bordwell & Co. on Centre Hill have struck some very rich dirt in their claim, from which they expect to get good pay, if it continues to yield as well as it prospects. They have been at work for a long time, and have spent considerable money, and much time in opening the claim, and have at last found dirt which promises to pay them for their labor. They deserve success, for they are industrious and hard working miners.

AMADOR.—The Amador *Ledger* says, the Butte Ditch Company have completed the laying down of their large iron pipe that conveys water on the top of Tunnel Hill. It works well, and meets their most sanguine expectations. Quite a number of miners are getting ready to go to work in that locality.

The *Dispatch* says that Captain Little, Denning and Burwell, owners of the Blue Jacket quartz lode, have been offered $30,000 for their interest in this lode. The amount offered is satisfactory but the terms of payment do not suit. The parties negotiating for this valuable lode are agents for a company of New York capitalists.

Some time next week there will be twelve stamps in operation in the mill on the Coney lode, an increase of four stamps since the mill was built. The proprietors intend to add four more stamps within the next month.

The enterprising company which owns the Oneida quartz lode, started twenty additional stamps in their mill last week on Friday. They now run forty stamps.

Dick Howard, who has for some weeks past been energetically prospecting in Hunt's gulch for quartz, at last has the pleasant satisfaction of seeing his labors rewarded by the development of a well defined ledge, about three feet in width, literally dotted with gold. Mr. H.'s claim is believed to be on the same lode with the Coney and Blue Jacket.

VIRGINIA CITY AND VICINITY.

The Gold Hill *News* says that the shipments of bullion, for the past few days, has been light, not because the rock does not yield as much as formerly, but from the fact that the horrid condition of the roads will not permit the teams to more than keep the mills half supplied, while the dumps are half full.

The *Enterprise* gives the following enumeration of assessments recently levied:—The Globe Mining company has levied an assessment of one dollar per share; Hale & Norcross, of twenty-five dollars to the share; North Comstock G. and S. M. company, assessment No. 8, of twenty-five cents per share; Overman company, ten dollars per share; Rogers S. M. company, Flowery District, three dollars per share; Kentuck Mining company, Gold Hill District, has rescinded assessment of seventeen dollars and fifty cents per share, which was levied on the 12th day of December, 1865. The same company, on the first day of February, levied an assessment of seven dollars and fifty cents; Lady Bryan G. and S. M. company has levied an assessment of one dollar per share; Mount Blanc G. and S. M. company, two dollars and fifty cents per share.

The Mariposa mill, at the foot of Cedar Hill, has lately been thoroughly overhauled, the old Howland rotary battery thrown out, and a new straight 12-inch stamp battery substituted. The six Smith pans have been turned into Wheeler pans, by permission of Wheeler & Randall, patentees. The pans, thus improved, are considered even better than the regular Wheeler pan, inasmuch as they are wider and deeper than the original Wheeler pan. The pans were altered at the Pioneer Foundry, where patterns for such alterations still remain. The various improvements made have increased the capacity of the mill from to twenty tons per twenty-four hours. The Mariposa mill seems in a fair way to become more profitable than ever before.

By actual survey it has been ascertained that the rich deposit of ore lately struck by the Hale & Norcross is seventy-nine feet south of the south line of the Savage. The survey was made by the Savage Company.

The Kentuck Company are taking out a considerable quantity of excellent ore.

REESE RIVER.

SAN ANTONIO DISTRICT, NYE COUNTY, NEV., January 9th, 1866.—*Editors Mining and Scientific Press:*—For several weeks we have been in regular receipt of your valuable paper, in which I see you invite communications from all points, particularly from where mining is being carried on. Being myself one of the founders of this district, and having resided here almost continuously for two years, and being pretty well acquainted with its merits and prospects, I will assume to give you, from time to time, a few items of the operations going on hereabouts.

San Antonio district is located in an isolated mountain, about ten miles east and west, by forty miles north and south. It is bounded on the east by Monitor Valley, and on the northwest and south by Big Smoky Valley, which continues its course south, and merges into "Death Valley." San Antonio lies about one hundred miles south from the city of Austin, sixty miles southeast from Ione, and fifty miles northeast from Silver Peak District.

The mountains in this portion of the country seem to have been broken up and scattered in isolated masses, rather than formed in connected ranges.

About twenty-five miles southwest from San Antonio, a lone mountain of granite rises to the hight of 3,000 feet above the valleys. This is the only granite found in this section of the country.

In other places vast masses of volcanic rock are seen that rise unconnectedly, and from isolated mountains. The mountains where the mines are found are composed almost, if not quite exclusively, of argilaceous slate. To the northward and eastward the rocks are composed of the older volcanic productions—basalt and the older lavas.

As usual, in this, the Reese River region, no metalliferous veins are found in the volcanic formations. The slate in this district has a different lithological character from that usually found in this country, and its structure resembles shale more than that of any other district. It is probably of a more recent geological epoch than the slate found further to the northward.

San Antonio was first discovered in October, 1863, by some Mexicans. The famous Liberty ledge was the first location made. This mine has been worked during the past year to a depth of two hundred and fifty feet, and though no water has made its appearance in the mine, the same rich ore is found at the bottom of the incline. Some thirty tons of ore have been taken from this mine, hauled and reduced at the Austin mills, at a expense of $125 per ton, and then yielding a clear profit to the owners of $200 per ton. The lowest yield was $317 per ton. The vein is from four to six feet thick, its course is north and south, and dips at an angle of 40° to the east. Several "horses" have occurred during the working of the incline, still the vein has resumed its usual regularity. It has solid slate crossings, with clay selvages. The "Liberty" is pronounced by all who have seen it to be the largest vein of rich chloride ore yet found in the whole Reese River country. In many places down the incline large sheets of horn silver (the purest kind of chloride of silver) can be seen, and taken off with a pen-knife. Work on the Liberty has been temporarily suspended, for the purpose of erecting hoisting works, after which the mine will be worked steadily, and will surely prove a source of great profit to its lucky owners.

I speak more particularly of the Liberty in this, from the fact of its being the first discovery of the district, and its having the most work done, and having sent away the largest amount of rich ore. But in speaking of the merits of any one mine, I do not wish to detract from the merits of others, all of which I will speak in due time.

San Antonio is but little known to the outside world, from the fact of its isolated situation. It was discovered at the time of the crisis of 1863, and but few of the early locators have been able to hold on to their mines. But the day long wished for is now advancing, and we can see through the sifting clouds of adversity evidence of our future prosperity.

Mr. Wm. H. L. Barnes, lawyer of your city, and Mr. Geo. Hunt, of Gold Hill, assisted by W. C. Ralston, of the Bank of California, have nearly completed a first-class ten stamp mill, with four roasting furnaces, and all the appliances for the reduction of all kinds of ores. The amalgamation will be by the barrel process, and under the immediate supervision of Mr. E. N. Riottle, formerly of the assay office of Theall & Co., of Austin. Mr. Riottle is an experienced and competent metallurgist, and from numerous assays and workings of ores from this district, he is well satisfied of the richness of our mines.

Mr. Hunt has full charge of the whole works, and deserves great credit for the efficient manner in which he has pushed forward work on the mill, as well as for the good judgment displayed in assisting the Lee Company in getting out ore for the employment of his mill.

Before this letter reaches you, we will hear the steam whistle echoing through our hills and valleys, and the clattering stamps will send new encouragement to the miner's cabin door; the miner, in return, will enter his mine with renewed vigor to extract the precious metal.

In my next, I will give you a full description of the working of our "Pioneer Mill," in all its details, as well as a brief notice of some other of our leading mines, The Potomac, Cruzes, Lee, Rigby, Vulcan and Las Animas, and many other rich ledges are deserving of a better notice than I can give, and only wait capital and machinery to astonish the world with their richness.

At the regular annual meeting of our District, held a few days since, Mr. J. P. Comer was elected President; W. L. Stevens, Secretary, for the ensuing year, and Syl. Comer, Esq., was re-elected our District Recorder.

We have very cold weather up here; plenty of ice and snow, and fine moonlight nights. All we lack is an importation of crinoline, a few straps of bells, and we might enjoy life as we were wont to do in olden time, before we left *America*.

JUANITO.

THE FUTURE OF AMERICAN CITIES.—Horace Greeley gives it as his opinion that the chief cities of the United States will rank, in the census of 1900, in the following order: 1, New York; 2, Philadelphia; 3, St. Louis; 4, Chicago; 5, Cincinnati; 6, San Francisco; 7, Baltimore; 8, Boston; 9, Petersburg; 10, Richmond.

WATER STRIKE.—The miners at Michigan Bluff are on a water strike this winter. The Ditch Company heretofore has charged twenty cents per inch, and the miners demand a reduction of five cents. The result is dull times in that section. When the matter will be compromised or settled no one seems to know.

NEW FLOURING MILLS.—Stock to the amount of $16,000 has been taken, by leading citizens of Vaca Valley, in a Company organized for the purpose of establishing a steam flouring mill in that vicinity.

Mechanical.

THE "DISENGAGING EYE."—This useful California invention, which we described at length in our issue of the 2d of last December, is exciting a wonderful degree of interest at the East, and the inventor, according to the New York correspondent of the *Alta*, is the recipient of marked attention from the mercantile community and the newspaper fraternity of that city. The prospects seem good for an extensive sale of what is regarded by everybody who has seen the model, as the best thing yet gotten up for the saving of human life in cases of disaster by sea. The inventor, Mr. Brown, in connection with his assignee Mr. Level, has applied for letters patent at London and Paris. He has also obtained from the Secretary of the Treasury permission to exhibit the admirable qualities of the apparatus on board of one of the government steamers in the harbor of New York, similar to the experiments made in this harbor. The trial was expected to attract a big crowd. Mr. L. will probably make a contract at Newark, for the construction of a sufficient number of the "Disengaging Eyes", to meet the heavy demand which its soon to be proved success will create. The American patent for this invention was secured through the MINING AND SCIENTIFIC PRESS PATENT AGENCY.

IRON SHIP BUILDING IN ENGLAND, is being carried on to an enormous extent. The tonnage amount of that class of shipping constructed at the different dock yards of Great Britain during the year 1865, is estimated at 500,000 tons; the number of vessels constructed numbering about 450. The superiority of iron over wood for ship building, is now pretty well established; and the time cannot be far distant when almost the entire of both the government and mercantile marine of Great Britain will consist of iron-built ships. The scarcity of timber, and the abundance of coal and iron in that country, renders iron ships more economical there than in the United States; where, so far as the development of our coal and iron interests are concerned, the relative conditions of wood and iron are reversed.

HEAVY ON THE RAILROADS.—The late terrible war was heavy on the southern railroads. Every possible expedient was resorted to by our troops to effectually destroy, for use, the rails upon the roads which were torn up. Transportation beyond the reach of the enemy was impracticable, and any mere tearing up of the rails and road bed was soon repaired. Hence huge bonfires were made upon which the rails were piled to heat and twist them in such a manner that they could not be again made serviceable, until taken to a rolling mill. Even to the present day, it is said that the quantity of rails so destroyed and still lying by the side of the tracks, is immense on the roads that were most frequently visited by the National troops. Along the Weldon, (N. C.) railroad, thousands may yet be seen bent into right angles, and many completely coiled around the trees! Let us hope that the occasion for such a wholesale destruction of property will never again occur in our now peaceful land.

A ROTARY ROCK BORING DRILL.—Among the patents recently issued at Washington is a Rotary Rock Boring machine, which consists of a drill composed of a number of scolloped cutting wheels, which are arranged in a common head, on axles passing through said wheels at right angles, and in such a manner that by giving to the head a rapid rotary motion, the wheels will cut into the ground or rock and produce a clear hole. The dirt or dust is raised by the action of a spiral flange, secured to the outside of the drill rod, guided by conveniently arranged friction rollers. A stream of water is made to pass continually to the bottom of the hole through the drill rod, which is made hollow for that purpose. Much of the dirt is thus removed. The machine can be applied to ordinary rock drilling or well boring.

A SHIP OF THE SECOND CENTURY.—In the course of digging a trench for military purposes, during the late Danish war, the workmen came upon boggy soil, and at a depth of five feet, discovered the remains of a very ancient ship imbedded in the bog. The site is now some distance from the sea (at Wester Sutrup, in Sandewitt Bay); but at the time when it was deserted it was no doubt "run up" on the beach. It is of oak, but in so very defective a condition, that it had to be strengthened with iron bands before it could be removed to Flensburg, where it may now be seen. The keel is bent upwards at both ends, after the fashion of a modern gondola, rising to a hight of nine feet, ten inches in the bows, and ten feet eleven inches at the stern. The total length is seventy-nine feet ten inches, by a width of eleven feet ten inches in the waist, by a hight of four feet two inches. There appears to have been no deck, but several lockers were found, some of which contained bones of animals. Besides this were discovered a number of spears, bows, arrows, battle-axes, wooden clubs, knives, etc.; but, what was more important, some coins were found, which gave the date of the time when this ship floated, not only on the Baltic, but perhaps to the distant shores of Britain. The coins are Roman, and of the second century, A. C.; and there were also bracelets, rings, and other ornaments, besides cooking utensils, etc. All these articles are now in the Archaeological Museum at Copenhagen, but the ship itself the Danes were unable to get away before they had to give place to the advancing Austrians.—*London Builder.*

TRAVEL BENEFICIAL TO WORKMEN.—A contemporary says: We have always thought that our workmen might imitate one practice of their German brethren with advantage. On attaining his majority the German operative is obliged to travel through certain parts of the country and learn the different processes and methods of practicing his art before he can settle down and follow his calling on his own account. The tendency of this rule which is imperative, is to improve and enlarge the ideas of the mechanic. Working in one town, continually, the artisan becomes familiar with the methods there practiced, and whether good or bad, he is acquainted with these only. He is apt to become a man of one idea, and to think that the mechanical world is bounded by the limits of his own factory. It is unnecessary to remind the thinking reader, that such a course is directly opposed to progress.

To become thoroughly imbued with a sense of importance to travel as a means of developing and educating the mechanic, one has only to observe the different modes of doing the same piece of work practiced in different places. For instance, one man has a bed plate to plane; he roughs it off, takes half a dozen cuts where one would suffice, and dallies with the work, when an energetic business-like way of going at it would have done the same thing in half the time. New tools, new uses for old tools, new processes, materials and designs are only found by travelling about among mechanics, and getting acquainted with what is transpiring in the world of art outside of the sphere in which an individual may dwell.

MAGNESIUM FOR WAR VESSELS.—It is now recommended that vessels of war should be built of magnesium, which is but little heavier than heart of oak, and as strong and tenacious as steel. It is estimated that the ocean itself contains 160,000 cubic miles of magnesium, a quantity which would cover the entire surface of the globe, both sea and land, to a thickness of more than eight feet. In obtaining salt from sea-water, the residuum is largely magnesium. The burning of a magnesium ship at sea would be a magnificent sight, a fire at which the stars "cold in their unimagined distances" might warm themselves.

A PUMP PROPELLER.—The London *Mechanics' Magazine* says that a vessel is now building for the English Admiralty, by the Thames Iron Works and Shipbuilding Company, which is remarkable as having been designed on a plan expected to supersede all other steam vessels; screw or paddle, by proving the practicability of propelling vessels by sucking in a column or "rope" of water, by a turbine wheel arrangement through a ship's bottom and "squirting it again out of the ship through her sides. It is feared that, whatever results may be obtained, they will be rendered unimportant by the excessive cost of their production.

A WATER LIFTER.—The Sacramento *Bee* says that Wilcox's Water Lifter, a steam pump without engine, piston or plunger, is on exhibition at No. 17 Front street, Sacramento, between I and J, which is worthy of public attention as a mechanical wonder. We described a machine, possessing similar powers, in our issue of three weeks since. That machine is known as a "Steam Syphon Pump."

A CHANCE FOR INVENTORS.—In Paris horse-shoes must not be roughed, because that wears out the macadamized paving so general on the great thoroughfares of that city; but it tells fearfully on horses. Paris would reward the inventor who would contrive a shoe which, without having picking projections, would yet have bite enough to keep from slipping. Intervening strips of steel might, by the quicker wearing down of the softer iron, keep up the required edge, and not be too costly.

THE PATENT LAWS.—Persons interested in patents for inventions, and who have been led to believe that it is intended to obtain through Congress a very essential modification of the patent laws, are authoritatively informed that no material change in such laws will be asked for during the present session. Only a few of the minor points affecting the details of securing patents will be modified.

GEO. W. DAY, of Chelsea, Mass., the inventor of a machine for making shoes which drives the shoe thread like pegs, a good imitation of pegged work, has sold his interest for $200,000, and is to receive a percentage on every pair of boots made by this process.

WHERE WAS THE FIRST RAIL ROLLED?—Mr. W. S. Langridge, of Aldermasley Iron Works, Ambergate, says, in the *Mining Journal*: The first rail ever made was at the Bedlington Iron Works, Northumberland, and from these works a staff of men were sent to Penydarron to teach the Welshmen to make rails.

LOSS OF LEAD SMELTING.—Not less than 800 tons of lead were recently obtained in one year, the result of the dust which accumulated within that time in the long flues of a lead smelting furnace in the north of England.

CURIOSITIES OF CLEAR LAKE.—A correspondent of the Healdsburg *Standard* says: This beautiful sheet of water is the great feature of Lake county; take this away, and the valley would lose its greatest charm. It is about forty miles in length, from ten to fourteen miles in width, and is fed by numerous creeks that put down from the mountains on every side. It has an outlet through Cache creek into the Sacramento river. Some people think that it has other outlets down under the surface that communicate with the ocean, as it is scarcely ever known to rise during the heavy rains, and Cache creek is very little affected. The shores are generally clean, the margin forming along the low foot hills. It is seldom disturbed by rough winds, making navigation pleasant and safe, both for pleasure and profit. At one place, near the lower end, and about two miles out from the shore, there are several springs of boiling-hot water, one of which boils and bubbles to the hight of ten feet; they are a wonderful curiosity, and your correspondent viewed them from a respectful distance, not caring to go near where the water was in such commotion. The place is held in superstitious dread by men who run small crafts on the lake, and it is an idea prevalent with them that these springs are boiling up from the crater of an old volcano which has sunk beneath the surface, and that it is liable to burst forth in terrible fury at any time. There is also a story, believed by many of the "oldest inhabitants," that the lake is inhabited by a monster a regular man-eater; and it is said to have been seen by several persons, who describe it as "some like a fish, with a good deal of snake—green-eyed," and big enough to swallow a man without blinking; I could not ascertain that it had ever swallowed anybody.

THE OPHIR SUPERINTENDENCY.—We regret to learn, says the Virginia *Enterprise*, that Captain William Blanding, President of the Ophir Company, and who has for the past year so ably and faithfully superintended the local management of the mine, is about to leave Virginia City to resume the duties of President of the company in San Francisco. By his strict integrity, courteous and gentlemanly deportment, Captain Blanding has won the esteem of all with whom he has been brought in contact, and has proved himself one of the most capable business managers of mines in the State. Mr. James E. Fair has been appointed Superintendent in place of Captain Blanding. The latter gentleman has had large experience both in California and Nevada in the direction of mining work. The explorations are now being vigorously carried on in the ninth or 559-foot level of the mine. Success to the old Ophir, the pioneer mine of Virginia.

PRICES CURRENT IN THE MINES ON THE UPPER COLUMBIA.—The following are the prices current in the new mines up the Columbia river, at Big Bend, on the 20th of November: Bacon, $1,50 ℔ lb; Flour, $80 ℔ 100 lb; Sugar, $1,50 ℔ lb; Coffee, $1,50 ℔ lb; Tea, $3 ℔ lb; Butter, $2 ℔ lb; Beef, 65c ℔ lb.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

OFFICE OF THE MINING AND SCIENTIFIC PRESS—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by transmitting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application form patent to the Government, embracing a petition, specification, model, duplicate drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the MINING AND SCIENTIFIC PRESS. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian, Spanish, and inventors of every nationality, may now obtain patents in the United States, upon the same terms as citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, procuring it from the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensues. If the application is rejected we cause the reason or reasons therefor to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result to parties free of charge.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable chiefly on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us, works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unequalled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a nature. Our terms for such cases are as moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement in some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: DEWEY & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always advise us by letter when the model and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as rapidly as possible. When the documents are ready to send them to the inventor, or to mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued, the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless the case presents complications; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time, but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos..	$10
On every application for a design, for seven years.....	15
On every application for a design, for fourteen years.....	30
On every application for a patent, for seventeen years..	15
On every caveat.....	10
On issuing each original patent.....	20
On antedating.....	10
On every application for a re-issue.....	30
On every additional patent granted on a re-issue.....	30
On every application for an extension.....	50
On the granting of every extension.....	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C....	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No, 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER, ... SENIOR EDITOR.

O. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence; consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited, and all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:

Saturday Morning, Feb. 17, 1866.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

THE COPPER INTEREST.

The amount of copper ore which passed through Stockton from Calaveras county, during the year 1864, was estimated at 14,000 tons, valued at about $600,000. That amount increased in 1865 to fully 25,000 tons, valued at $1,500,000. The increased proportionate value is due to the increased quality of the ore shipped—the experience of 1864 having proven that it will not pay to ship anything but first class ore. This is looked upon as but the beginning of the copper business for that county. Future developments, greatly aided as they will be by the railroad now in process of construction, will increase the value of that class of ore shipments to an almost indefinite extent. The copper belt extending through Copperopolis some six or eight miles either way, is considered by scientific men, as well as old experienced copper miners, the largest and most valuable yet discovered in any part of the world. It is estimated that fully 50,000 inhabitants will soon be directly and indirectly supported by this mineral district.

Five thousand pounds of copper were shipped a few days since from the smelting works of the Buchanan Company, in Mariposa county, for San Francisco. This makes 24,000 lbs. that have been shipped by the above company since the completion of their smelting furnace.

Heury & Co. are putting up new and extensive smelting works in place of the old ones, near James' Ranch, in the Hamilton District. Their vein—the "Lone Tree," is proving its richness plainer each day.

The smelting furnaces at Genesee Valley were fired up for the first time last week. A quantity of copper ore was put through, everything working well. The Company are sanguine of success.

DECLINE IN THE PRICE OF COPPER.—By private telegraphic advices, recently received in this city, we learn that the price of ingot copper depreciated in Europe, between the 20th of December, 1865, and the 17th of January, 1866, to the extent of $73.09.

AN IMPORTANT ENTERPRISE.

A MINING SCHOOL FOR THE PACIFIC COAST.

One of the most important educational needs of California has just been met in the establishment, in connection with the City College, at the corner of Stockton and Geary streets in this city, of a School for giving practical instruction in the sciences bearing upon mining pursuits. We have long urged upon our citizens the necessity for an Institution of this character, and we are now happy to announce to the mining interest throughout this coast that a school, precisely adapted to our wants, will be inaugurated on Tuesday evening next, as above, on which occasion the public is invited to attend. Addresses will be delivered by several gentlemen, the plan and objects of the School be fully explained, and its importance to the mining interests of this coast will be fully set forth.

A suitable building of brick has been erected on the College grounds for this especial purpose, provided with three melting furnaces, two cupelling furnaces, drying ovens, sand bath, arrangements for distilling water, and ample bench conveniences for from eighteen to twenty students, fitted up with water and gas-fixtures, etc., all in the most perfect manner. Adjoining the laboratory is a large lecture room, for public lectures; also a philosophical room, provided with an extensive assortment of instruments for illustrating the physical sciences, experimental instruction, etc. An excellent library is already connected with the Institution, and an extensive cabinet will soon be added. An Astronomical Observatory, provided with a superior four-inch refractory telescope, surmounts the main building connected with the college. If the Institution is encouraged by a sufficient number of students, another story will be added to the building, so that the chemical and metallurgical departments may be kept separate.

The above is in addition to the usual English, mathematical, commercial and classical course of education pursued at this college.

The appointments of this Institution are larger and more complete, in its metallurgical department, than those connected with the Royal School of Mines in London. The plan of instruction will be very similar to that pursued at that celebrated school; modified, however, to suit the peculiar wants and necessities of our local circumstances and needs.

The advantages of the Institution are placed before the public in the broadest and most liberal manner, and in such a way that all persons desirous of availing themselves of any particular branch or course can do so. The miner or millman, for instance, who may have a few weeks only to spare, can visit the city, and for a reasonable compensation be thoroughly instructed in the ordinary processes of assaying; or he can, at his convenience, extend his studies and practice to any extent which he may desire. No man who has not at least a preliminary knowledge of assaying, should be considered competent to take charge of an amalgamating room.

As a guarantee that this Institution is all that it claims to be, we have only to mention, as among its Board of Trustees, such names as T. H. Selby, Esq.; Dr. H. P. Coon, Mayor of the City; C. Wadsworth, D. D.; G. Burrowes, D. D.; H. H. Haight, Esq.; R. B. Woodward; H. M. Newhall; J. G. Kellogg; A. Campbell, Esq.; A. J. Ralston, etc.

The Faculty of Instruction is full, able, and liberal; the whole under the general direction of Rev. P. V. Veeder, who is acting as President during the absence at the East of Dr. Burrowes. The Chemical and Metallurgical department is under the immediate charge of Professor Price, late Professor of Chemistry in the Normal College of Swanzea, England.

A MINING INTELLIGENCE EXCHANGE AND RECORD OFFICE.

In connection with the above, and for the furtherance of the general mining interests of this and the adjoining States and Territories, we again take occasion to state that our plans for the establishment of a "Mining Intelligence Exchange and Record Office," are approaching a completion. This new department which we propose to establish in connection with the MINING AND SCIENTIFIC PRESS, and which, to a certain extent, will be made an adjunct and assistant to the Mining School already alluded to, will have for its object the furtherance of the development of the immense mineral resources of the Pacific Coast, in which all classes of society are so deeply interested. The benefits of our labors in this direction will be FREE TO ALL.

The plan which will be pursued will be to diligently seek out and procure all available information which can be obtained from trustworthy sources, in relation to the mines, their development; the best mode of working them; the particular processes suited to different localities and different classes of ores; the knowledge of different mining localities, their geology, general character, and all other information bearing upon the economy of working such mines.

We shall also collect plans, models, drawings, etc., of all prominent mines in the country, and the machinery employed for working the same. All of which will be open for the inspection, examination and study of the mining public, and at the same time made specially available for the benefit of the students connected with the Mining School already established.

We are also prepared to give full information upon any and all subjects bearing upon chemistry, metallurgy and mining. Particular attention will be devoted to consultations upon the application of chemistry to the industrial arts. In cases of a purely business nature, involving costly or tedious experiments, by experts, a fee will be charged proportionate to the degree and value of service rendered. The same rule will be adopted in the application of metallurgical principles, when time and expense must be necessarily incurred. Advice and ordinarily attainable information will always be FREE. We have at this office one of the best scientific libraries in the State, furnished with all the latest and most authentic standard publications, and we are in regular receipt of the principal mining, metallurgical and scientific publications of all parts of the world, by which we are kept in constant and early advice of the latest improvements and discoveries in every department of industry and science.

Experts will be provided for parties, either at home or abroad, who may desire a personal and reliable examination or survey of mines. None but persons of undoubted competence and responsibility will be employed or recommended for such service. Mining superintendents and persons qualified to supervise any of the various labors connected with mining and metallurgy, will be supplied on application at this office.

AN ASSAY DEPARTMENT

Has also been connected with the office of the MINING AND SCIENTIFIC PRESS, where assays of every description will be made by competent persons, who fully understand their business.

Our long experience and intimate practical acquaintance with every department of mining, and all the varied mining interests on this coast, has enabled us to collect a vast amount of valuable local information, which the columns of the MINING AND SCIENTIFIC PRESS have been altogether insufficient to contain. This information we are now classifying and shall soon place upon record so as to be made of convenient reference. When so arranged it will be made free to all. The record already embraces an amount of matter sufficient to fill several volumes—not one-tenth part of which is within the reach of any other parties than the proprietors of the MINING AND SCIENTIFIC PRESS. We are moreover constantly making additions to this class of information; in aid of which we keep constantly in the field from three to four traveling agents, in addition to quite a number of regular local correspondents. We have the further advantage of an exchange list comprising about every publication issued on the western slope of the Rocky Mountains. All the information attainable through these several agencies, will be free to all visitors to this office.

We have undertaken the above labor in the belief that we shall thereby be able to render important service to the mining interest. By collecting and placing upon permanent record, for convenient reference, all the information above alluded to which shall be too voluminous to be placed before the public through the columns of our weekly newspaper issue, we shall enable parties seeking investment to conveniently lay hold of valuable information, which shall serve to guide them in their negotiations. All who are conversant with past mining transactions on this coast are aware of the incalculable injury which our legitimate mining enterprises have sustained from the fraudulent representations of unscrupulous speculators. With the facilities for information which we propose to place at the free use of all, such swindles cannot be perpetrated upon any party who will avail themselves of the most ordinary means for guarding against such impositions.

Through our agencies, already established in the Atlantic cities, we hope to be able to reach every considerable community there, and perform an important part in once more restoring, in a measure at least, the confidence of capitalists abroad in the value of our mines, and the integrity of the great mass of our people.

In order to carry our plans to a successful issue, we need the united support of the miners and the mining public every where. The well established position of the MINING AND SCIENTIFIC PRESS, and the reputation for enterprise and integrity which the proprietors flatter themselves they have acquired, we think will be a sufficient guarantee that we are in earnest in what we propose, and that we have both the ability and means to carry it out to the letter. To do so will be our highest ambition.

LATEST FROM ARIZONA.—Very little mining is being done in Arizona at present. Work is progressing upon some six or eight mines in the vicinity of Prescott. Should these prospecting operations turn out well, several mills will be put up in the spring.

Mr. William Ceele, is said to have recently discovered one of the richest gold-bearing quartz leads on the continent, a few miles from Prescott.

At last accounts snow was sixteen inches deep in Prescott, and the weather was the coldest ever known there.

Military operations appear to be moving slowly, owing to the unpleasant state of the weather, and the difficulty of bringing the Indians to a stand. An improvement in military matters is looked for soon; as General McDowell had just arrived at Prescott, and was engaged in straightening out military matters in his usual energetic style. It is claimed that about as much strategy is required to capture a Camanche village as was employed in the taking of Richmond!

MECHANICS' INSTITUTE.—The annual election of this association will take place at the rooms of the society in their building, No. 529 California street, on Monday, March 5th. At an adjourned meeting, held last evening, the committee appointed for the purpose reported the following as the regular ticket:

For President—H. J. Booth.
Vice President—D. A. Macdonald.
Recording Secretary—Robert Riddle.
Corresponding Secretary—A. S. Hallidie.
Treasurer—Edward Nunan.
Directors—Jas. B. Johnson, P. J. O'Connor, Henry Webb, John W. Farren, F. G. Edwards, James Speirs.

The nominating committee have power to add one more name to the directors.

THE NEW "SUN PEARL PICTURES."—Messrs. Bradley & Rulofson have applied, through our agency, for U. S. Letters patent on this method of producing this new and beautiful style of pictures. We shall further allude to this decided improvement in photography in another issue.

SUBSCRIBERS who do not receive the MINING AND SCIENTIFIC PRESS in due time, are requested to inform the publishers.

A TRIP TO MOUNT DIABLO.

A trip to Mount Diablo at the present time is not a very particularly pleasant excursion. Having a little business in that direction, however, we stepped on board the trim little steamer Paul Pry, on Tuesday of last week, and were soon landed at

ANTIOCH.

The next morning, having a few moments to spare, before starting for the mines, we took a look around town. Business in Antioch is rather dull at this time, on account of the impassable condition of the roads, which effectually cuts off all communication with the coal mines. With the return of fair weather, however, inland communication will be again restored, the teamster will return to his accustomed avocation, and business in Antioch will once more resume its wonted bustle. Much speculation exists there, at the present time, with regard to the effect which the railroad is going to exert upon the prosperity of the place. It is well known that the railroad company has selected a point some two miles below Antioch as its *embarcadero*, whither it will take all its freight, and from which point it will transport its supplies to the mines. The general impression at Antioch, is that the increase of business at the mines, and the difficulty of access to the upper terminus of the railroad from many of the mines already opened, and others yet to be developed, will admit of the still onward progress of this thriving little town. We don't doubt it. Moreover, we look to developments at the mines which will soon demand the construction of still another road for the accommodation of such transportation as cannot reach the present one, and which will have its lower terminus at Antioch. The value and extent of these mines is not yet fully understood. We shall have more to say of them next week.

THE COPPER SMELTING WORKS,

About which so much has been said, and from which so much was expected, are located a few rods up the river from the town, having a landing of their own. These works are now idle. All the ore which was purchased by the company has been worked up, and the *matte* shipped to the East. The furnaces, we believe, were well adapted to the purpose for which they were constructed; but the high price of transportation of fuel and of labor would not admit of their being made a pecuniary success, on the low class of ores upon which they were tried; while the high price paid for the selected ores for shipping, precluded their purchase by the company at rates at which they could be made remunerative for smelting here. We are not informed as to the future disposition which is to be made of the property. The furnaces are two in number, and of reverberatory construction.

THE QUICKSILVER MINES.

Most of our readers are aware that preparations have been some time in progress for the erection of the necessary furnaces and machinery, for the purpose of working the quicksilver mine located on the northeasterly flank of the mountain, nearly opposite the town of Antioch. Mr. R. E. Oglesby, last spring, made an arrangement for putting up the necessary fixtures and machinery for working the mine and extracting the metal from the ore. This machinery is now completed and was started up while we were there. It consists of a rotary crushing mill, driven by a steam engine, for reducing the ore and lime, to the fineness required for extracting the quicksilver. He has put up two D retorts, each 9.6 feet long, and capable of receiving about 600 pounds of ore each, to a charge. Four charges can be made in each twenty-four hours—or about two and a half tons per day. This is merely designed for prospecting operations, to test the ore and mine thoroughly before fitting up extensive machinery and furnaces of large capacity. The test thus far has been perfectly satisfactory. The quicksilver was coming from the retorts quite freely when we left the mine last Saturday morning. The mine is looking quite well, although it has as yet been opened to only a few feet in depth. There are thousands of tons of ore on the surface, which, with a very little selection, it is thought will pay well by the use of large furnaces for extracting the metal, instead of the retorts now employed. We trust the enterprise may prove a success in every particular.

Parties interested in extension claims are watching with much interest the developments now being made by Mr. Oglesby, with the view of thereupon judging the value of their own ground.

THE BOOT AND SHOE BUSINESS IN SAN FRANCISCO.

San Francisco capitalists are beginning to find that there are other sources of profit for the investment of capital, than mines and merchandise. Three or four years of experience in the various departments of industrial enterprise, have fully proven that the inhabitants of the Pacific Coast can make themselves one of the most independent people in the world. In addition to the great metallic basis of commercial enterprise, for which the world looks chiefly to this coast for its supply, we have now fully proven that our agricultural resources, both in variety and abundance, are no where to be equalled; while at the same time the industry and genius of our people are fully competent to the task of rendering us quite as independent as any other community, in our home manufactures.

During the past week we have taken occasion to inquire into that particular department of manufacture named in the heading of this article, and have been quite surprised to learn the extent to which it is even now being carried on in this city. The success which has thus far attended enterprise in this direction, looks to the fullest assurance that California will soon become quite independent of either the Eastern States or Europe, for boots and shoes for both ladies' and gentlemen's wear. There are already some four or five wholesale manufactories in San Francisco alone.

The pioneer establishment in this line, in San Francisco, is that of I. M. Wentworth & Co., at 210 Pine street, which commenced operations in the fall of 1864. The State institution at San Quentin, however, introduced the manufacture about two years earlier. The class of goods manufactured by Messrs. Wentworth & Co., are ladies', children's and misses' boots and shoes. The particular speciality of their manufacture is that known as channel and copper nailed; a class of work now considered superior to any other, with the exception of sewed work, which, we believe, has never been introduced as an exclusive branch of manufacture on a large scale. In this kind of work the nails are driven, in a channel, which is afterward covered, making a neat and elegant finish. The nails are clinched by being driven upon an iron last. In order to have this part of the work done effectually, and in a manner to *hold*, the nails are manufactured of the very best Swede's iron, and are beaded. Work so put together stands much better than pegs, ordinary nailed work, or machine sewing; and is excelled only by hand sewing, which is altogether too expensive for general work, and the superiority of which bears no reasonable proportion to its increased cost.

These gentlemen have gone into this business with a determination not only to make it profitable, but also to convince the public that they can turn out a quality of work equal, if not better, in both style and finish, than the best imported from either Boston or Paris. An examination of their latest style of ladies' and misses' gaiters, is all that is needed to convince even the most fastidious that they have accomplished this latter purpose. They are doing it, moreover, by the use of California-made leather; importing nothing but their nails and lasting—which latter is of the best French manufacture. California sole leather, it is worthy of notice, is pronounced superior to any which can be imported; owing, it is said, to some peculiar quality in the bark used in this country for tanning.

In order to render the business profitable, they are introducing all the latest and most improved machinery, for expediting work and saving hand labor. A visit to their establishment affords a pretty plain showing that boot and shoe *making*, as it used to be called, may now well be termed *manufacturing*, the common mode of distinguishing between work done by hand and that accomplished by machinery. In following the process of the manufacture from its commencement, step by step, to the perfect shoe or boot, the attention of the observer is first called to a little rolling machine, which takes the place of the "lap-stone," that was once the invariable accompaniment of every shoemaker's "kit." Here the work of hours is done in minutes; next, a properly shaped die, with a single blow from a mallet, cuts out a heel-tap or sole, which was formerly a slow and tedious operation with a knife and pattern, while two or three sewing machines (five of which are used at this establishment) do the work of sewers, of binders and closers. Next we come to one of the most ingenious and useful machines in the entire range of shoe manufacture—the "eyelet machine." All the operator has to do is to drop a handful of eyelets in a kind of revolving hopper, work a treadle with one of his feet, and hold the "upper" in its proper place on the machine, while the holes, previously punched, are made to receive, automically, the eyelets as rapidly as stitches can be taken by a needle-woman. This, we believe, is the only machine of the kind in California. It is quite a recent invention. Ten or twelve of Bailey's patent head-blocks, are kept in constant employment in the room set apart for their especial purpose.

Those gentlemen are also expecting, by the next steamer, additional machinery—two large splitting machines, a skeiving machine, and a large rolling machine. They are determined to add to their machinery department everything which can facilitate and cheapen the various processes of their manufacture, without militating against the quality of their work. So great is the demand for their goods, that they find it almost impossible to supply the orders which are constantly coming in. The present state of the Eastern market, in connection with the sudden demand for boots and shoes at the South, which followed immediately upon the close of the war, is operating greatly to the advantage of California manufacturers. In order to encourage our own manufacturers, purchasers should discriminate between home and imported goods, giving preference to the former. Let those who have not hitherto tried home manufactured boots and shoes, make the experiment, and our word for it, they will not regret having done so; and will, moreover, render substantial aid in building up an important branch of home industry.

CAUSE OF WEAK EYES.—Indigestion is the principal source of weak eyes. Reading in the cars often seriously disturbs the vision. A delicate and wonderful apparatus within the eyes is constantly busy in adapting it to the various focal distances. The jerking motion of the car compels an exhaustive effort to maintain the required adaptation. Thousands of eyes are spoiled by reading in cars and other vehicles. Recently I was consulted by a railway expressman, who had become totally blind by reading newspapers in the cars. Thousands who have never consciously suffered any inconvenience from the habit, are obliged to wear glasses prematurely, to correct an unsteadiness of vision produced in this way. Reading with the gas-light before you is another cause of weak eyes. The light should always hang high and behind you, and be allowed to shine over the shoulder. If convenient, it should be over the left shoulder. If using kerosene, it is best to employ the lamps which hang on the wall. Neither should you read with your face towards the window. Reading by twilight is dangerous. Gradually accommodating itself to the receding light, the eye is unconsciously strained. I have seen more than one case of grave disease of the eye, produced by an undue effort to use the vision too long at twilight. White paint is another mischief to the eyes. White paint outside, white paint inside, white paint everywhere. During the brightest sunshine, the glare hurts the eyes. I wonder if it is not in bad taste likewise? I notice that artists have none of it about them. In our constant reading, the eye sight is much tried by the white paper. I hope that the tinted paper, with a still deeper color, may become fashionable. Avoid reading by artificial light when you can. We read too much. We read as we eat—pell-mell, hotchity potch; no mastication, no digestion. If, as a people, we read less we might know more.—*Dio Lewis.*

Subscribe Now!

1866 JANUARY 1st, 1866

Commencement of Twelfth Volume

—OF THE—

Mining and Scientific Press

Published Every Saturday.

The title of our journal is a truthful expression of its character.

It affords a class of progressive information to the Miners, Mechanics and Professional Men of the Pacific Coast, which cannot be derived from books, or other publications.

Each Volume comprises, in reality, a book of new intelligence and facts relating to Mining, Mechanism, Metallurgy, Science and Art, developed by our rich and peculiar resources, and identical with our own industry and history.

By the encouragement of intelligent economy in LABOR and GOLD-SAVING, we shall make the PRESS a source of INDIVIDUAL PROFIT to its patrons, as well as a public benefit to every local community in which it circulates.

The prospects of our journal are now brighter than at any former period. Our facilities for furnishing a valuable paper are constantly increasing.

Following are some of the many opinions generously expressed by our neighbors:

Editorial Expressions:

The publishers intend to make it the "Scientific American" of the Pacific Coast. Every miner should have a copy of it in his cabin, for it will be filled with useful information to the pick and shovel fraternity.—[Trinity Journal.

Should be taken by every man owning "feet" [and brains] in this State.—[Beacon.

In no other ten journals can the reader find the same amount of reliable mining news as in the PRESS.—[Contra Costa Gazette.

Every stockholder in different mines will find it will pay to take and read this mining journal.—[Contra Costa Gazette.

The PRESS is to the Pacific Coast what the "Scientific American" is on the Atlantic. It deserves its success.—[Aurora Daily Times.

It is fully up to the times, and furnishes the latest mining improvements and intelligence,—[Calaveras Chronicle.

Every miner should subscribe for the PRESS.—[Calaveras Chronicle.

It presents a channel through which all mining notices may be cheaply consolidated into one sheet for the convenience of all stockholders.—[Mountain Messenger.

We can give our testimony that it is always replete with useful and valuable information to miners and mechanics. [Placer Herald.

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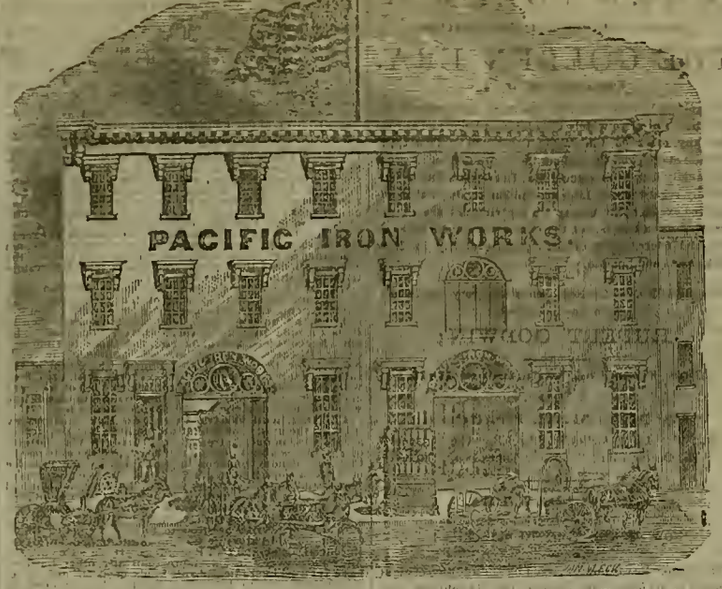

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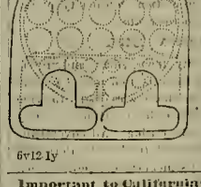

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Old Boilers Repaired

6v12 1y **D. CAMERON.**

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, while safest course is to trust their business with none but active and experienced solicitors. The Mason and Scientific Patent Agency has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

PALMER, KNOX & CO.,

Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,

SAN FRANCISCO.

MANUFACTURE ALL KINDS OF

MACHINERY,

STEAM ENGINES AND QUARTZ MILLS

DUNBAR'S IMPROVED

Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S

NEW GRINDER AND AMALGAMATOR,

HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies.

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

FULTON

Foundry and Iron Works.

HINCKLEY & CO.,

MANUFACTURERS OF

STEAM ENGINES,

Quartz, Flour and Saw Mills,

Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

SAN FRANCISCO

Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,

Manufacturers of

Marine and Stationery Engines

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses

of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Salmon's Patent Amalgamator and Separator; Wheeler & Randall's New Grinder and Separator; Baux & Guiod's Amalgamator and Separator; W. W. Tupper's Patent Sectional Grate Bar; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston Packing, requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings, at the lowest market rates.

6v11-1y **DEVOE, DINSMORE & CO.**

JAMES MACKEN,

COPPERSMITH,

No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to.

13v11

JOHN P. GALLAGHER. JOSEPH WEED.

GALLAGHER & WEED,

BRASS AND BELL FOUNDRY

And Lock Factory.

ALL KINDS OF BRASS AND COMPOSITION CASTINGS AND FINISHING DONE WITH NEATNESS AND DISPATCH.

CHURCH AND STEAMBOAT BELLS, OF ALL SIZES, made to order. Engineers' Gauges made and hung in the best manner. Bank, Vault, Store and Prison Locks; also Brass Padlocks and Shop Locks of various patterns, on hand and made to order.

☞ Particular attention given to casting Rudder Braces and Ship Work in general.

☞ All Jobs promptly attended to. Prices moderate. ☜

No. 125 First street, opposite Minna next door to Pacific Foundry. 12tf

(Removed from Oregon street, between Front and Davis.

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the MINING AND SCIENTIFIC PRESS. 19v11tf

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. The Mixter and Scranton Pass Patent Agency has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

The Press is a large, sixteen-page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—Nye County News.

Rates of Advertising

—IN THE—

MINING AND SCIENTIFIC PRESS.

Mining Advertisements.

Notices of Meetings, per square, one week	$1 00
Notices of Meetings, per square, four weeks	2 50
Assessment Notices, of ordinary length, four weeks	6 00
Assessment Notices, of more than usual length, for each additional square	2 50
Delinquent Sales, per square, two weeks	2 00
Delinquent Sales, per square, three weeks	2 50
Postponements, per square, one week	1 00
Slips of Advertisements printed, for meetings or assessments, per hundred	1 00
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One week, per square	$1 00
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☞ *Ten lines of solid advertising type constitutes a square.* ☜

Terms of Subscription.

The Mining and Scientific Press is published every Saturday morning (containing sixteen pages—size of *Harper's Weekly*) at the following rates:

One copy, one year, by mail, in advance	$5 00
One copy, six months, by mail, in advance	3 00
One copy, one year, by express	6 50
One copy, six months, by express	3 50
Five copies, one year, by mail, in advance	20 00
By city carriers, per month	50
Single copies	12½
Monthly Series (or parts), containing 4 Nos	50
Monthly Series, containing 5 Nos	62½

The Circulation of the Press, already extensive, is rapidly increasing, and substantial men who can profit by widely disseminating information of their business amongst the most intelligent, influential, and industrial classes of the Pacific States and Territories will find no more effectual or economical medium for advertising.

DEWEY & CO., Proprietors.

Patent Agency and Job Printing Office, 505 Clay street, San Francisco. July 1 1865

QUARTZ OPERATOR'S HAND BOOK.

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,

Authors and Publishers.

Bound in Cloth—144 Pages, Duodecimo.

The Quartz Operator's Hand Book is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms, a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner.

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable Quartz Miner's Hand Book.

The Table of Contents of this book will be found on pa 415 of the Mining and Scientific Press of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11

PREMIUMS.

1st Premium, at Sacramento Fair.....1862

1st Premium, at S. F. Bay District.....1862

1st Premium at Sacramento.....1863

1st Premium, at San Francisco.....1864

1st Premium, for Cordials.....1864

1st Premium, for Hygienic Bitters.....1864

Awarded to

V. SQUARZA.

Office of the County Clerk of the City and County of San Francisco, State of California.—In County Court

In the matter of the application of LA MORRONENA SILVER MINING COMPANY, for Order of Dissolution.

Notice is hereby given, pursuant to law and an order of the Hon. Samuel Cowles, County Judge of said City and County, this day made, that La Morronena Silver Mining Company, a corporation duly organized and doing business in said City and County, has made application, by petition duly filed, that said Company be disincorporated and dissolved, and that said application will be heard by and before the Hon. Samuel Cowles, County Judge aforesaid, on the seventeenth day of February, A. D. 1866, at 10 o'clock A. M., in the Court Room of said County Court, in the City Hall Building of said City and County.

Witness my hand and the Seal of said County Court, this eighteenth day of January, 1866.

(Seal and U. S. Rev. Stamp, 50c, canceled.) WM. LOEWY, County Clerk. By J. Naputaly, Dep. Co. Clerk. 3v12-4w.

1852. 1866

A NEW VOLUME.

Fourteenth Year of Publication.

THE GOLDEN ERA.

Founded in 1852.

The oldest Weekly Paper in the State, permanently established, and more widely circulated at home and abroad than any other on the Pacific Coast. In California, the Atlantic States, and throughout the entire field of its great and rapidly increasing circulation, The Golden Era is universally regarded as a Literary and Family Journal of unequalled excellence. Among its contributors are all the best writers on this side of the Continent, and correspondents and contributors of distinguished ability in New York, Paris and London.

Miss BRADDON'S Greatest Sensation Story published from Advance Sheets:

RUPERT GODWIN;

—OR—

The Secret of Wilmindon Hall.

A NOVEL.

By Miss M. E. Braddon,

Author of "Lady Audley's Secret," "The Outcasts," "The Doctor's Wife," "Three Times Dead," etc.,

—IN—

THE GOLDEN ERA.

NOW IS THE TIME TO SUBSCRIBE!

The Golden Era is now enlarged by the addition of eight columns to its pages—and presents fifty-six columns, containing the greatest possible variety of Valuable and Entertaining, Original and Selected Matter, all combining to render The Golden Era a Literary and Family Journal of surpassing interest and attraction; a Welcome Guest in Cottage and Cabin—the favorite at the Greside in City and Country, the most useful, agreeable altogether desirable publication for California readers and their kindred and friends in the Atlantic States, Europe, and elsewhere. Every Household in the Mountains and Valleys, the Cities, Towns, and Mining Camps of California and throughout the Pacific States and Territories, should receive and welcome The Golden Era as a regular weekly visitor.

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The most popular Novels of the present day published as Serials, from week to week, in the Golden Era, from advance sheets, simultaneously with their appearance in the English and Atlantic Periodicals.

Among the contributors to the Golden Era are all the prominent writers of Literary Repute in California and on the Pacific Coast, also correspondents and contributors of distinguished ability in the Atlantic States and Europe, comprising an array of Talent and Genius unapproached by any Literary Journal in California, the Atlantic States, or Europe.

"THOUGHTS AND THINGS"

APPEAR WEEKLY IN THE COLDEN ERA.

Read "Thoughts and Things" in the Golden Era.

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" "Hugh Humphrey," in the Golden Era.

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One Year.....$5 00 Six Months.....$2 50

To Mail Subscribers.

The Golden Era for One Year	$5 00
The Golden Era for Six Months	$2 50
The Golden Era for Three Months	$1 55

Sent from the Office to any Address in California and Oregon—Nevada, Washington, Idaho, Utah, Montana, and Colorado Territories—the Atlantic States, Europe, and all parts of the World.

Take care to write distinctly the name of the person, the name of the city, town or locality where the post office is situated, and the name of the County and State, in order that the paper may be fully and accurately directed to every address.

AGENTS in every part of the State receive subscriptions for the Golden Era.

POSTMASTERS in California, Oregon, and neighboring Territories, obtaining subscriptions for the Golden Era and forwarding the same, with name and address of the subscriber, will be allowed a very liberal commission therefor.

Liberal Terms to Clubs.

Three copies, one year	$12 00
Five copies, one year	$18 00
Ten copies, one year	$35 00

Now is the Time to Subscribe.

TO ADVERTISERS.

Best Advertising Medium.—The Golden Era is the oldest Weekly Journal in California, and indisputably enjoys by far the largest circulation in the city of San Francisco and in the interior of the State.

THE GOLDEN ERA

Is universally read in every city, town, village and mining and agricultural precinct in California, and offers unusual and unequalled advantages to those who desire to bring their business prominently before the community. Only a limited space is devoted to advertising. All advertising pages are also largely occupied with fresh and interesting reading matter, and no advertisement can escape attention. The charges for advertising are not so large, proportioned to the benefits derived, as those of other papers. Liberal terms will be made with those who advertise for three or six months, or by the year.

BROOKS & LAWRENCE,

Golden Era Building,

No. 543 Clay street, near Montgomery, San Francisco

Oakland Water-Cure.

APRIL 1ST, 1864, WE OPENED A HYGIENIC BOARDING House and Ladies' Health Institute in Oakland. The great advantage we have experienced since that time, in the treatment and cure of all those diseases peculiar to females, as well as those common to all, over that of San Francisco, induced us to give up the treatment of gentlemen in the city. We have accordingly removed our entire Bathing, Electro-magnetic, and Gymnastic Apparatus, which we used especially in the treatment of males, to our Health Institute across the Bay, and have found, after a trial of seven months, that gentlemen as well as lady patients recover, at our Fountain Farm Cure, one-third faster than in the city of San Francisco. The climate here is the most even one bracing to be found in the State. The grounds command a view unsurpassed in the world. The Institution is furnished with an abundance of pure, soft water, from numerous springs; and we now offer to Ministers, Teachers, Lawyers, Miners, Merchants, Mechanics, Farmers, and all other worthy persons, who desire to try the advantage of the only *rational* system of medicine, the hospitalities of our Hygienic Home and Cure. Young men who have become debilitated or lost their health by excesses, late toil, exposure, or bad habits, contract through ignorance of Physical Laws, may with us find more of the encouragements they need, and means that will restore them to health, than elsewhere in California.

We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that it is followed by none of those debilitating diseases, such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, Intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Urethal Strictures, etc., which we well know result from the free use of mercury and other metallic drugs, together with stimulants and vegetable poisons given to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in its facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any like establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douch Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to miners, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Mercurial, Lead, and Oak Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have yet used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, retorting metals, the malaria of rivers and low marshy grounds. Where there was a fair constitution left, even when drugs had been applied for months and years without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflammatory and Mercurial Rheumatism; Paralysis; Lung, Bronchial and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Erysipelas, Scrofula, Piles, Inflammation of the Bowels, Chronic and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is so favorably situated to furnish so many home comforts and hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only Female Institute boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the medication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in the bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institutions, both in Sacramento and San Francisco, has induced us to make this class of human afflictions a specialty of our Institution. We have treated (mostly in the cure), over 300 females, several of whom had been "bedridden" for months and years, and all have been decidedly benefited, and with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

There is not one female invalid in twenty that has been suffering from nervous debility or diseases peculiar to her sex, that cannot be permanently cured by spending from four to six weeks at our Cure, and at the more cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn a single regret from husband or wife of the time or means they have expended in Hygieic Medication.

New York, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has labored successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygico-Therapeutic College.

To all whom it may concern:

I have known Dr Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as an honest, faithful delineator of character, and as such can cheerfully recommend him to the public.

For the good of Science,
L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 9 A. M. to 2 P. M. Circulars sent on application. Address,

BARLOW J. SMITH, M. D.,
20v11tf San Francisco, Box 473.

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Consolidated Silver Hill Mining Company.

Location of Works: Esmeralda District, Nevada.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Ainsworth, J C	357	12	$24 00
Braly, F C	159	10	20 00
Buckman, J A	294	30	60 00
Buckman, J A	944	10	20 00
Barkeloo, John	706	5	10 00
Barkeloo, John	973	10	20 00
Boyd, Jas T	872	10	20 00
Bennet, Th	764	10	20 00
Bradford, C H	927	10	20 00
Bohn, S H	982	25	50 00
Belden, H	959	3	6 00
Belden, H	960	2	4 00
Barker, J	995	5	10 00
Calen, J W	191	8	16 00
Center, M	194	5	10 00
Cohen, S	592	2	4 00
Carlyle, Mary E	967	14	28 00
Chamberlin, A L	993	10	20 00
Chamberlin, A L	994	10	20 00
Donahue, W M	326	6	10 00
Dunn, E T	330	10	20 00
Daly, John T	411	10	20 00
Daly, John T	412	10	20 00
Eckel, J N	321	10	20 00
Fuesk, W	727	5	10 00
Feast, W	728	5	10 00
Feast, W	729	5	10 00
Feast, W	730	5	10 00
Feast, W	731	5	10 00
Feast, W	732	5	10 00
Feast, W	733	5	10 00
Feast, W	734	5	10 00
Feast, W	735	5	10 00
Feast, W	736	5	10 00
Falkenan, J	666	5	10 00
French, J M	716	5	10 00
French, J M	737	10	20 00
French, J M	738	5	10 00
Foy, J D	773	15	30 00
Foley, T	1041	20	40 00
Giffin, O F	838	3	6 00
Giffin, O F	794	10	20 00
Giffin, O F	797	15	30 00
Giffin, O F	939	10	20 00
Giffin, O F	940	10	20 00
Grinbaum, M S	772	10	20 00
Grinbaum, M S	854	5	10 00
Gattell, B	1048	10	20 00
Hewston, John, Jr	280	26	52 00
Hadeler, H	652	10	20 00
Harper, W M	875	2	4 00
Hamden, W H	901	5	10 00
Hoerchner, C J	961	5	10 00
Hawkins, Julia	984	3	6 00
Kellogg, S W	336	2	4 00
Kohler, A	562	10	20 00
Keesing, B	1036	8	16 00
Leland, Ch	43	5	10 00
Levitzky, H	869	12	24 00
Leppien, J	978	3	6 00
Levy, A	1024	4	8 00
Murphy, J L	33	42	84 00
Murray, J	661	26	52 00
Murray, J	861	10	20 00
Mitchell, O C	906	10	20 00
Marcus, A	1049	10	20 00
Mandlehaum, F	853	20	40 00
McLea, Donald	905	12	24 00
Newmark, J P	bal 737	2	4 00
Osgood, John K	361	2	4 00
Osgood, John K	898	30	60 00
Parker, B G	170	26	60 00
Pfister, C	826	5	10 00
Polhemus, C B	870	10	20 00
Phelan, Jas	883	13	26 00
Phelan, Jas	884	12	24 00
Phelan, Jas	886	30	60 00
Phelan, Jas	887	20	40 00
Perry, John, Jr	889	6	12 00
Perry, John, Jr	817	2	4 00
Perry, John, Jr	890	15	30 00
Perry, John, Jr	891	25	50 00
Perry, John, Jr	1039	20	40 00
Redington, J H	374	15	30 00
Redington, J H	311	10	20 00
Redington, J H	312	5	10 00
Redington, J H	313	5	10 00
Redington, J H	314	5	10 00
Rosenfeld, J	bal 823	5	10 00
Reichenbach, J	934	10	20 00
Robbins, J J	1025	9	18 00
Robbins, J J	1026	10	20 00
Robbins, J J	1027	10	20 00
Robbins, J J	1028	10	20 00
Robbins, J J	1029	10	20 00
Robbins, J J	1030	10	20 00
Robbins, J J	1031	10	20 00
Robbins, J J	1032	5	10 00
Robbins, J J	1033	4	8 00
Robbins, J J	1034	1	2 00
Robbins, J J	1035	15	30 00
Sbotwell, J M	903	10	20 00
Shirley, P	335	2	4 00
Schmiedell, H	035	20	40 00
Schmiedell, H	bal 843	5	10 00
Sparks, Z W	1045	10	20 00
Spense, W A	807	10	20 00
Spense, W A	904	5	10 00
Stevens, Th	972	20	40 00
Stevens, Th	981	10	20 00
Stevens, Th	976	5	10 00
Stevens, Th	977	16	30 00
Toomy, D	bal 104	5	10 00
Tracy, Theo F	320	5	10 00
Tracy, Theo F	327	5	10 00
Talbot, T A	574	5	10 00
Tams, S	bal 744	3	6 00
Toomey & Fagan	799	10	20 00
Turney, John H	871	10	20 00
Levy, H	752	10	20 00
Levy, H	753	10	20 00
Levy, H	931	20	40 00
Stanley, S L	1043	15	30 00
Van Bergen, N	558	10	20 00
Vandersine & Co	874	5	10 00
Watson, N A	911	10	20 00
Wadham, W	880	5	10 00
Ponton, L de Arce	980	7	14 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co, at the office of the Company, Room No. 15, Government House, San Francisco, Cal., on the 3d day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

feb17 JOHN S. MACKENZIE, Secretary.

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of February, 1866, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866 to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

A. B. WINEGAR, Secretary.

Office, 308 and 310 Front Street, San Francisco. feb17

Kearsarge Quartz Mining Company—Delinquent.

Notice is hereby given, that in accordance with law, and the By-Laws of the Company, there will be sold at public auction, at 3 o'clock P. M., on the 16th day of March, 1866, in front of the Company's Office, in Sacramento, to the highest bidder, for cash, in United States gold coin, so many shares of the capital stock of the Company standing in the names of the following persons, as may be necessary for the payment of assessment No. 9, of twenty-five cents per share, levied thereon December 16th, 1865, together with the expenses of advertising and sale:

	Shares.	Amount.
H A Dana	300	$75 00
N P Ingalls	300	75 00

SEYMOUR JOHNSON, Secretary.

Company's Office, No. 147 L Street, Sacramento.

February 10th, 1864. feb17

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Animas Silver Mining Company, Ventenas, Durango, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 30th day of December, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Lansing Haight	56, 57, 59, 60 62, 63	97	$38 80
Lansing Haight	unissued	155	62 00
Edwards Woodruff	5	50	20 00
Mrs. Caroline E Woodruff	106	150	60 00
Jerry Parsons	84	100	40 00
J Fillebrown	828	50	20 00
P Decker	48	50	20 00
H Bigelow	96	50	20 00
W C Belcher	86	10	4 00

And in accordance with law, and an order of the Board of Trustees, made on the 30th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Secretary Pro tem., THOMAS HILL, 622 Montgomery street, on the 19th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

feb3 THOMAS HILL, Secretary Pro tem.

Blue Ledge Gold and Silver Mining Company, Lauder County Nevada.

NOTICE.—There are delinquent upon the following described Stock, on account of Assessment levied on the 2d day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Aron, Jos	96	1	$1 00
Aron, Simon	118	1	1 00
Abrams, M	220	1	1 00
Beer, Julius	12	10	10 00
Beer, Julius	95	1	1 00
Beer, Julius	104	7½	7 50
Beer, Julius	106	15	15 00
Beer, Julius	120	5½	5 50
Bachman, D	221	1	1 00
Biddleman, E J	101	7	7 00
Cutter, H F	208	6	6 00
Cutter, H F	231	67	67 00
Cohn, G	61	5	5 00
Francis, D B	3	5	5 00
Frank, J	222	1	1 00
Greene, S H	223	1	1 00
Heath, R W	216	34½	34 50
Harrington, W C	2?4	1	1 00
Haas, Solomon	129	5	5 00
Light, C H	187	4¼	4 25
Levy, Isaac	225	2	2 00
Meyerield, M	2?6	2	2 00
Perley, D W	19	20	20 00
Perley, D W	20	20	20 00
Perley, D W	23	10	10 00
Perley, D W	25	5	5 00
Perley, D W	26	5	5 00
Smith, A N	227	5	5 00
Strauss, Emanuel	103	5	5 00
Strauss, Emanuel	116	5	5 00
Scott, H	217	138	138 00
Weusinger, F S	228	3	3 00
Woodleaf, H	229	1	1 00
Waterman, E R	155	2	2 00
Watriss, Geo E	207	34 13-16	$4 82

And in accordance with law, and an order of the Board of Trustees, made on the 2d day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, by Jones & Bendixen, auctioneers, on the 20th day of February, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. feb3

Evoca Consolidated Copper Mining Company.

Location of Works: Conrt Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 31st day of January, 1866, an assessment of twenty-five (25) cents per share was levied upon the assessable capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, at No. 537 Washington street, room No. 3, in the City and County of San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

CHARLES E. ABBOT, Secretary.

Office, 537 Washington street, Room 3. San Francisco, Cal. feb3

BUY

The Monthly Series

—OF THE—

MINING AND SCIENTIFIC PRESS.

Send it to Your Friends.

Issued at the close of EACH Month.

PRICE.....50 CENTS.

MONEY BY MAIL.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid.

It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid.—[Nya County News.

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of December, 1865, the several amounts set opposite the names of the respective shareholders as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Berry, Harrison	101	25	$25 00
Coon, M R	110 and 111 25 ea	50	50 00
Coon, M R	114	5	5 00
Coon, M R	178	3	3 00
Clark, J Warren	123	1	1 00
Clark, J Warren	not issued	10	10 00
Clark, Sarah A	122	5	5 00
Clark, Miriam	124	25	25 00
Clark, P A	115	5	5 00
Clark, P A	110 and 117 1 ea	2	2 00
Clark, P A	120	3	3 00
Clark, P A	119 and 121 4 ea	8	8 00
Cornwell, J F	80, 81, 82 10 ea	30	30 00
Deming, Wm	168	10	10 00
Dake, C W	246	12	12 00
Egan, E D	140	2	2 00
Elsworth, Wm	180	5	5 00
Gibson, James	39 and 40 10 ea	20	20 00
Graham, T B	not issued	10	10 00
Kenney, Charles W	132	2	2 00
Kercheval, Sarah A	240	10	10 00
Lee, O N	not issued	9 2 3	10 00
Mecklenberg, Joseph	165	5	5 00
Miller, J E	165	10	10 00
Sloan, H H	28 and 29 10 ea	20	20 00
Savage, Richard	164	10	10 00
Whitton, M S	68	7	7 00
Whitton, C J	183	10	10 00
Sloan, H H	30	6¼	6 00
Knight, Thomas	37	4½	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 20th day of December, 1865, so many shares of each parcel of said stock as may be necessary, will be sold at the auction rooms of Messrs. Olney & Co., No. 626 Montgomery street, on the 20th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessmeat thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. feb3

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of January, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, W. L. GETCHELL.

Any stock upon which said assessment shall remain unpaid on Saturday, the 24th day of February, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 10th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. jan27

Jewett Gold and Silver Mining Company, Gold Hill District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 29th day of January, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 20th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

G. M. BURNHAM, Secretary Pro tem.

Office, 436 Jackson street. feb3

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable on the 2d day of February, 1866, in United States gold and silver coin, to the Secretary, at his office.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. feb3

Leland Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 2d day of February, 1866, in United States gold and silver coin, to the Secretary, at his office.

Any stock upon which said assessment shall remain unpaid on the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary,

Office, 302 Montgomery street, San Francisco, Cal. feb3

MINING LAWS AND FORMS.

Third Edition revised and enlarged.

Compiled by H. B. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete; Digest of Decisions of the Supreme Court; Forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

Published by H. H. BANCROFT & CO.

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

Owens River Canal Company, Tulare County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Gilliland, E P	23	5	$2 00
Gilliland, Newell	24	5	2 00
McKinney, Wm	2d	10	4 00
Warner, A K	27	25	10 00
Loomis, Riley	28	25	10 00
Preble, Mrs L A	29	5	2 00
Stetsou, Wm	30	4	1 60
Webber, L A	37	10	4 00
Hastings, N	39	25	10 00
Hollenback, J C	40	30	12 00
Preble, S W	44	10	4 00
Dews, H J	45	10	4 00
Wright, D J	46	10	4 00
Brown, D J	47	10	4 00
Perrin, Otis	48	25	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Maurice Dore & Co.'s saleroom, 327 Montgomery street, on Monday, the 19th day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.

Office, 618 Merchant street, San Francisco. feb3

Providence Gold and Silver Mining Company, Nevada District, Nevada County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of February, 1866, an assessment of one ($1) dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco. feb10

Southern Light Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of February, 1866, an assessment (No. 8) of twelve dollars and fifty cents ($12.50) per share was levied upon the capital stock of said Company, payable immediately, in United States gold or silver coin, to the Secretary, at his office, No. 228 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 10th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 26th day of March, 1866, at 3 o'clock, P. M., to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

E. J. DRINKHOUSE, Secretary.

Office, No. 228 Front street, San Francisco, Cal. feb10-4w

United States Mining Company.---Location: Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of February, 1866, an assessment of fifty (50) cents per share was levied on each and every share of the capital stock of said company, payable immediately, in gold or silver coin of the United States, to the Secretary, at his office, or to F. A. MARSTON, Virginia, Nevada.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised as delinquent, and unless paid, will be sold on Saturday, the 31st day of March, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets. San Francisco. feb10

Wide West Gold and Silver Mining Company. Location: Silver Mountain District, Alpine County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Mrs S K Arnold	228	5	$15 00
Reuben Bost	136	5	15 00
Reuben Bost	140	5	15 00
Reuben Bost	141	5	15 00
Reuben Bost	155	6	18 00
Reuben Bost	257	31	93 00
Reuben Bost	259	31	93 00
Reuben Bost	299	3	9 00
Reuben Bost	302	32	96 00
Reuben Bost	162	10	30 00
Reuben Bost	135	5	15 00
Geo E Brush	120	4	12 00
J S Brown	213	10	30 00
P D Bailey	253	17	51 00
J G Brayton	283	10	30 00
J G Brayton	284	10	30 00
J G Brayton	285	10	30 00
J G Brayton	286	10	30 00
J G Brayton	287	10	30 00
J G Brayton	288	10	30 00
J G Brayton	289	5	15 00
J G Brayton	290	5	15 00
J G Brayton	291	5	15 00
J G Brayton	292	5	15 00
Frank Cable	not issued	250	750 00
B Capell	69	10	30 00
B Capell	70	10	30 00
B Capell	71	5	15 00
B Capell	202	10	30 00
B Capell	77	5	15 00
B Capell	80	5	15 00
B Capell	81	10	30 00
B Capell	82	10	30 00
B Capell	78	5	15 00
B Capell	79	5	15 00
P Christianson	114	8	24 00
P Christianson	115	5	15 00
W B Carleton & E W Leach	187	5	15 00
W B Carleton & E W Leach	188	5	15 00
Jas S Capel	231	10	30 00
W J Dobbins	25	25	75 00
W J Dobbins	306	25	75 00
M L Durbin	237	10	30 00
Wm Demming	248	10	30 00
Wm Demming	249	10	30 00
John awdy	309	5	15 00
S B Edsall	not issued	150	450 00
Wm Eggington	223	10	30 00
Thos Earl	238	15	45 00
Wm H Gibbs	209	10	30 00
B R Johnson	250	10	30 00
B R Johnson	251	10	30 00
John Gillam	246	10	30 00
Wiley F James	241	5	15 00
Wiley F James	242	5	15 00
Wiley F James	243	5	15 00
Wiley F James	244	5	15 00
Wiley F James	245	5	15 00
Charles Kather	300	10	30 00
A B Lake	121	4	12 00
N Lawrence	254	16	48 00
J A McGimsey	not issued	75	225 00
J A McGimsey	305	10	30 00
J A McGimsey	33	5	15 00
J A McGimsey	34	6	18 00
J Mcclinbery	113	5	15 00
James Morrison	41	5	15 00
Robt McReynolds	118	10	30 00
Jacob McReynolds	122	2	0 00
Jacob McReynolds	241	5	15 00
Donald McDonald	234	10	30 00
Geo W Manwell	193	5	15 00
A C McDonnell	225	5	15 00
A C McDonnell	226	7	21 00
Chas McIntire	265	10	30 00
Wm McGill	301	10	30 00
J N Pierson	195	10	30 00
Geo F Reeves	230	5	15 00
J W B Reynolds	19	25	75 00
J W B Reynolds	20	25	75 00
J W B Reynolds	184	15	45 00
J W B Reynolds	22	25	75 00
T H Rickman	127	5	15 00
T H Rickman	128	10	30 00
T H Rickman	129	8	24 00
Rickman & Sewell	130	5	15 00
Andrew Stephens	106	20	60 00
Andrew Stephens	107	20	60 00
Andrew Stephens	108	20	60 00
Andrew Stephens	186	20	60 00
Ole Simondson	119	5	15 00
John Stiffs	232	20	60 00
Stillwagon & Boynton	256	33	99 00
W W Stilwagon	267	10	30 00
O P Southwell	260	5	15 00
T Vann	270	10	30 00
Jerome Wade	35	5	15 00
Jerome Wade	36	5	15 00
Jerome Wade	37	5	15 00
Jerome Wade	38	5	15 00
H F White	42	12½	37 50
R J Whitton	66	10	30 00
M S Whitton	2	5	15 00
M S Whitton	304	15	45 00
E Whitton	62	20	60 00
Mrs N Whitton	63	10	30 00
W H Whitton	48	20	60 00
W H Whitton	49	5	15 00
W H Whitton	51	5	15 00
S C Wodehills	179	25	75 00
A C Wood	272	20	60 00
A G Wood	273	20	60 00
A G Wood	274	20	60 00
A G Wood	275	20	60 00
A G Wood	276	20	60 00
A G Wood	277	20	60 00
A G Wood	278	20	60 00

And in accordance with law, and an order of the Board of Trustees, made on the said 4th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 21st day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOSEPH GREEN, Secretay.

Office, 330 Davis street, San Francisco. feb3

POSTPONEMENT.—The above sale is hereby postponed until Friday, March 2, 1866, at the same hour and place. By order of the Board of Trustees.

feb10 JOSEPH GREEN, Secreary.

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 1st day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Borges, P	36	1	$ 3 00
Contrron, J B	326	2½	7 50
De Montpreville, C	89	12	36 00
De Montpreville, C	90	13	39 00
Hochstadter & Bro	244	20	60 00
Hochstadter & Bro	249	10	30 00

And in accordance with law, and an order of the Board of Trustees, made on the 1st day of January, 1866, so many shares of each parcel of said stocks may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 17th day of February, 183, at the hour of 12 o'clock M. of said day, to pay said dlinquent assessment thereon, together with costs of advertising and expenses of sale.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up-stairs, San Francisc. feb3

POSTPONEMENTS.—We would againcall the attention of Secretaries to a certainpoint of the mining law, too commonly overloced, viz: The requirement that all postponements must be added previous to the expiratin of the regular publication of assessmen or sale notices.

Postponements and Alterations.—Secretaries are requested to give notice of postponements, alterations which they may desire made in their advtisements at their earliest convenience. New advertisemits should be sent in as early as possible.

Delays are Dangerous.—Inventors in the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers (securing patents almost immediately, thereby avoiding the three months delay requisite in transacting buness through Eastern agencies.

Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than anyther paper on this const.

VALUE OF A SUMMER STORM.—A good summer storm is a rain of riches. If gold and silver rattled down from the clouds, they would not enrich the land so much as soft, long rains. Every drop is silver going to the mint. The roots are machinery, and catching the willing drops, they assay them, refine them, roll them, stamp them, and turn them out coined berries, apples, grains and grasses. All the mountains of California are not so rich as are the soft mines of heaven.

CURIOUS CAUSE OF DEATH.—Mrs. Samuel L. Elmy, Providence, R. I., pricked her finger with a needle, recently, and afterward scoured a brass knocker. The hand soon began to swell, and she died from the effects of the wound in a few days.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Just and True Economy

The Proprietors of the MINING AND SCIENTIFIC PRESS would call the especial attention of MINING SECRETARIES, TRUSTEES and SHAREHOLDERS, to a few substantial reasons for the publication of Mining Notices in their journal—the first and only important newspaper of its class published upon this coast.

1st. The PRESS enjoys a large and permanent subscription list, having a more universal circulation among shareholders and men intimately connected with mining interests than any other publication.

2d. Under the present law the publication of all mining notices on Saturday, in a weekly journal, complies as fully with the statutes as a daily publication. It is generally found to be equally as convenient for secretaries, and decidedly preferable to stockholders who have not time to examine throughout every issue of a daily.

3d. Economy in mining should always be looked upon with favor, and the cost for weekly advertising in the PRESS is less by ONE HALF than the rates of any other journal in this city possessing a respectable circulation.

4th. The publishers of the PRESS, making the mining interest their especial care, take particular pains to assist in the avoidance of errors in advertising. Our print is also more clear and perfect than can be expected in such papers as are hurriedly issued from cylinder presses.

5th. Our "Shareholders' Directory" forms a complete index of all mining notices published in San Francisco, by reference to which shareholders can at once see if their company is advertised, and determine whether the same is inserted in the PRESS or some other paper.

6th. Many copies of the PRESS are bound by prominent professional men, mechanics, secretaries, brokers, shareholders and others, as an important record for future reference, thereby rendering advertising, of every class, in its columns, of peculiar and permanent value.

7th. The benefit of having all mining notices consolidated in one newspaper, for the common convenience of shareholders, secretaries, and others who have occasion to refer to the same, is obvious. With this view we have established our rates at only fair, living prices, believing that a journal whose interests are unfettered by party, creed, or prejudice, as the only medium which can reasonably ask for such a consolidation of mining patronage.

8th. Advertisements in the columns of the PRESS, after their first insertion, are arranged alphabetically. Our present list is equalled only in one instance by that of any other journal. Shareholders, as well as strangers, naturally turn their attention to a mining journal for information concerning the mines and mining matters.

LAST, BUT NOT LEAST.—Our sheet (having been recently enlarged to the size of Harpers' Weekly) is now only equalled in its dimensions by one mining paper in existence—the *London Mining Journal*. Published in this, the greatest mining field of the world, we desire that the PRESS shall have no superior. We can only realize our cherished object of building up reliable advocate of the science and business of mining which will be of just honor and profit to our community by experience and liberal patronage. The bestowal of such favors only as naturally belong to us, and which it is clearly by the benefit of the mining fraternity to extend, is all that is requisite, and we are confident we shall receive it.

DEWEY & CO.,
4v11 Office Mining and Scientific Press.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMLIANCE WITH THE ACT OF THE LEGISLATure of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Anitial report.

I.—The mount of the Capital Stock of this Company is SEVEN [UNDRED AND FIFTY THOUSAND DOLLARS, and paida GOLD.....$750,000

II.—Th amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND FOUR HUNDRED AND TWENTY DOLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—Th Company has NO DEBTS.

IV.—Th amount of insurance effected during the year, and whic remained in force December 31, 1865:

Fire.....$12,973,949
Marine.....484,408

This Company commenced underwriting Marine Risks, August 1, 65.

V.—This Company insures against the following risks, viz: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDIS, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on REGOLEONS, TREASURY COMMISSIONS, PROFITS, and AR RISKS, and ON ALL MARINE AND INLAND NAIGATION RISKS, TO AND FROM ALL PORTS IN THE WRLD.

VI.—This omphny will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in ther RESPONSIBLE COMPANIES.

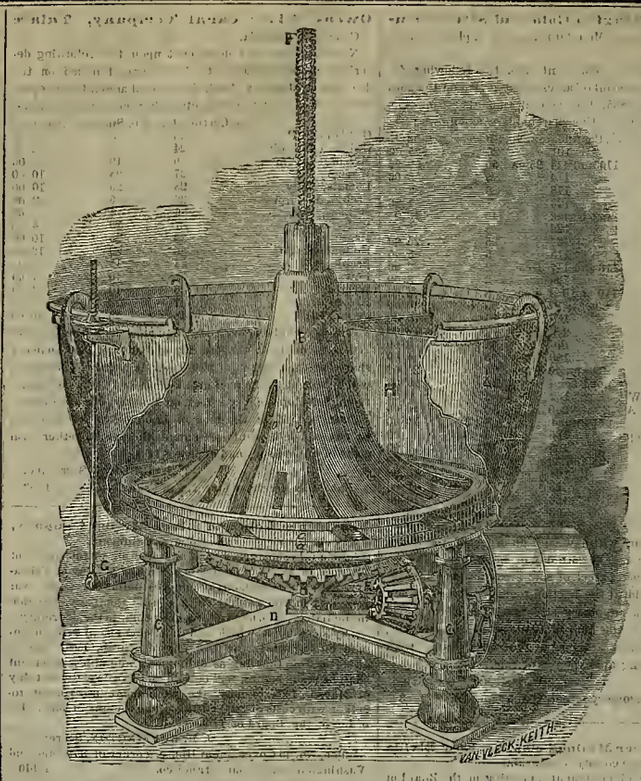
J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvol,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Alum. Seligma,	Wm. Hooper,	Lloyd Tevis,
Auson G Sitle	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Erwvon,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightma	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billis,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteeh day of January, A. D. one thousand eight hundred nd sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County and therein residing, duly commissioned and sworn, A. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and at the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m



THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings.

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamater" will reduce one hundred and seventy-seven tons of orc, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE
Union Iron Works and Golden State Iron Works,
WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.
SAN FRANCISCO, June 13, 1865.

LICK HOUSE.
Corner of Montgomery and Sutter streets,
SAN FRANCISCO.
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This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests. 15v11

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WATCH REPAIRING AT NEW YORK PRICES.
C. E. COLLINS,
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WATCH FACTORY.
A large assortment of these
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VERY FINE WATCHES FOR LADIES.
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The patent right for the United States of a valuable invention can be secured at a bargain by applying at this office. The article is one of general application throughout civilization.

DEWEY & CO., Publishers.

Removal.

The Office of the MINING AND SCIENTIFIC PRESS has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive JOB PRINTING OFFICE.
San Francisco, April 10th, 1865.

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

A Good Financial Weekly.

The Stockholder:
MONITOR OF FINANCE AND INDUSTRY,
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—GIVING—
Quotations of all important Bonds and Stock Securities in the United States; GOVERNMENT, STATE, CITY, BANK, INSURANCE, PETROLEUM, MINING, and other miscellaneous Joint-Stock Organizations, with the Financial Statements of the same; Notices of Payment of Interest and Dividends—
fact, all matters that can be of interest to Security-holders.
Its columns will be found replete with important and useful financial information.
The Quotations given are correct, and may be relied upon either for the purchase or sale of Bonds or Stocks.
THE STOCKHOLDER is the *only strictly financial paper published in the United States.*
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And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.
A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.
San Francisco, March 6, 1865. 11v10-tf

CHARLES BERNARD,
MANUFACTURER AND DEALER IN
Family Chartres Coffee,
AND SPICES OF ALL KINDS,
No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.
First Premium Awarded
BY THE MECHANICS' INSTITUTE,
FOR BEST COFFEE AND SPICES.
The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to.
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OIL WELL BORING.
J. SEVENOAKS,
Contractor
For Well Boring and Erecting all kinds of Machinery connected therewith.
Having had extensive experience in boring for oil in Pennsylvania, Canada and elsewhere, I feel confident of being able to give entire satisfaction. Persons desirous of making contracts as above, or wishing information with regard to oil indications, etc., will please address me at the office of the "Mining and Scientific Press," San Francisco, or to my personal address, Box 1229 San Francisco. 2v11

MINING PROPERTIES.
PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.
N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble.
1v12

ENGRAVED TO ORDER.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.
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HAIR WASH.—A liquid that will color the human hair black, and not stain the skin, may be made by taking one part of bay rum, three parts of olive oil, and one part of good brandy, by measure. The hair must be washed with the mixture every morning, and in a short time the hair will be beautifully black, without injuring it in the least.

THE discovery of what is true, and the practice of what is good, are the two most important objects of life.

A RUGGED countenance often conceals the warmest heart; as the richest pearl sleeps in the roughest shell.

Too much is seldom enough. Pumping after your bucket is full prevents its keeping so.

THE Chinese miners' tax in Idaho is five dollars a month. The Celestials have a rougher road to travel, there, than in California.

BY MAIL.—The MINING AND SCIENTIFIC PRESS will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

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Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1861, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

SEND US WORD.—If any subscriber to this journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

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The Proprietors of the MINING AND SCIENTIFIC PRESS have on hand a Half-Medium Ruggles' Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

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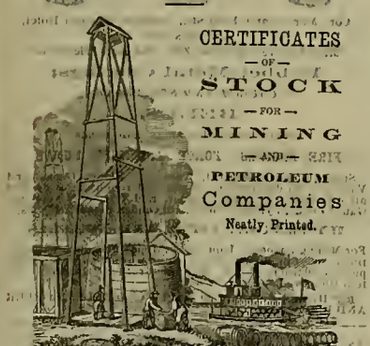

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—TO THE—
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Can now be procured, at the Patentee's price, by sending your orders, by mail or otherwise, to the

Office of the Mining and Scientific Press.

This article was more fully mentioned in the PRESS of April 15th, 1865. Since that time, however, Mr. Hendy has made a further improvement by attaching a rubber hose between the mouth-piece and the pipe, enabling the blower to change his position without disturbing the direction or constant accuracy of the current on the object upon which it is turned. The main portion of the blow-pipe is made with a joint, at which a valve is placed, which is opened when the operator blows and closed immediately when he ceases. By this arrangement the little bag or bladder is readily filled at a single breath, and with very little exertion. When so filled, a continuous current of air is forced from the nozzle of the pipe by the mere contractive force of the gutta percha. This force is uniform until the air is very nearly exhausted. The current may be easily varied or entirely cut off by gently pressing the fingers upon the neck of the bladder above the nipple to which it is attached.

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Machinery.

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PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,
Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERATION daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

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3d. The waste free gold and amalgam is amalgamated on the copper plates; no need of ground mercury and scarcely a trace of metal is run off with the sand.

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5th. There is no clogging or stopping to clean out the sulphurets and sand, consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated; that parties may see fit to test the machine with.

Give a trial, and satisfaction is guaranteed. All orders and any information required, address

ANDREW HUNTER,
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Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine Screening, Knowledge with Practical Experience, these Pans extract more gold and silver from their ores than any others in use, in a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan are the following: The trifling cost for attendance; its small cost; its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed for work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jefferson-ian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada; Lail's Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
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BLAKE'S
QUARTZ BREAKER
Is now extensively used for breaking hard masses of
Quartz or Ores
To a size suitable for stamps. These machines are patented, and are in practical operation in
CALIFORNIA, AUSTRALIA,
WASHOE,
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—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,
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4v10

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. Illustrated in the Mining and Scientific Press, April 8th, 1865.] HEPBURN & PETERSON.
nov8 3m*

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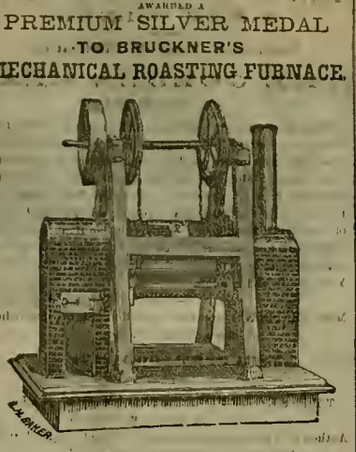

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IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person, and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

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HORSE POWER
For Sawing Wood.

ALSO, THE

Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.

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"Hoadley's" and "Hittinger's" Make,
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These Engines are favorably known, a large number being in use on this coast, for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery and construction accounts saved, (which is often the difference between the successful and unsuccessful prosecution of mining enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills

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Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam tight.

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Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10tf ANDREW STEVENS.

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A STEAM ENGINE!
18 INCH CYLINDER, FOUR-FOOT STROKE, IN PERFECT Order. Can be seen running at the San Francisco Pioneer Woolen Factory, Black Point. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to
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Equal to the Best Overshot Wheel

POWER PLEDGED IN EXISTENCE.

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Come and see them, or send for a Circular to

LEFFEL & MYERS,
At Vulcan Iron Works, office 137 and 139 First street, San Francisco. 4v11tf

VARNEY'S
PATENT AMALGAMATOR,
These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared, to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow, between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the PACIFIC FOUNDRY,
1v1 San Francisco.

Prater's Patent Concentrator,
(Known as HUNGERFORD & PRATER'S Concentrator,)
MANUFACTURED AT THE
San Francisco Foundry and Steam Engine Works.
Corner Fremont and Mission Streets.
All orders promptly attended to.
2v12 DEVOE, DINSMORE & CO.

HUNT'S PATENT
Circular Sweep Horse-Powers,

For Planing, Churns, Washing Machines, Grindstones, pumping water, sawing wood, and other light machinery. Price, $100, at the Factory.

HUNT'S PATENT SELF-REGULATING TREAD HORSE-POWER is superior to any machine of the kind in the market. Price, with Governor, all complete to set to work, at the Factory, $300. Manufactured by

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Important to Miners.

NEW PATENT ROASTING PROCESS.

I AM NOW PREPARED TO OFFER TO THE MINING community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A Furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day.

MORE COMPLETELY AND CHEAPER

Than any other Process. All the Sulphur is saved, by being converted into Bisulphide of Carbon, which is a valuable product, and will pay nearly all expenses.

For particulars, apply to

J. MOSHEIMER,
26v11-3m 423 Washington street.

SALMON'S
PROPELLOR AMALGAMATOR
—AND—
Challenge Settler

Has been in use and thoroughly tested, both in California and Nevada, with entire satisfaction to all parties concerned. These Machines are

Made entirely different from any others,

And with the same power will grind, amalgamate, settle and separate more gold and silver ore than any others now in use. Manufactured at the SAN FRANCISCO FOUNDRY where Machines can be seen in operation. Address

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Shows without hesitation

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—OR—

Any Day or Date in the 19th Century,

Rendering it a prompt and accurate

ASSISTANT RECKONER,

Besides answering fully
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During the Nineteenth Century.

The Calendar for each month is arranged in a single column, as in the regularly published (book) Almanacs, rendering it more easy for reckoning, in most instances, than the customary Counting-House form of Calendars.

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It affords the same reference from year to year.
It avoids errors.
It occupies a convenient space.
Its usefulness increases by use.
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It is worth one hundred times its cost.

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FOR SALE.

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Patent Boring Tools for Artesian Wells,

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Address, fully,

A. A. WILSON,
Morgan Iron Works,
6v12tf Foot 9th street, East River, New York City.

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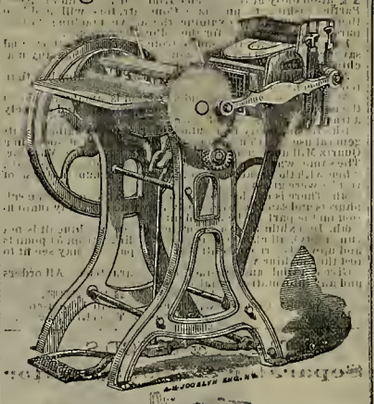

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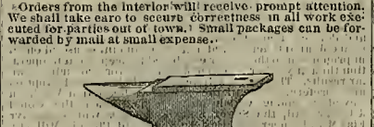

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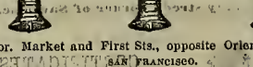

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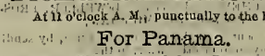

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SAN FRANCISCO, SATURDAY, FEBRUARY 24, 1866.

VOLUME XII. Number 8.

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THE MECHANICS' INSTITUTE.—The approaching election of officers for the Mechanics' Institute appears to be attracting much interest. The election is one of considerable importance. The question of the enlargement of the Institute, the acquisition of a cabinet, enlargement of library, establishment of a lecture system, etc., are matters which will come before the new board of officers; and the election of candidates should be made with a view to the proper accomplishment of these purposes. We gave the name of the candidates of the regular ticket in our last issue. A call has been issued for a meeting of those members favoring an Opposition Ticket, at the rooms of the Institute, this Saturday evening at 8 o'clock, for the purpose of appointing a Committee to select candidates to fill the various offices of the Institute for the ensuing year.

THE BATOPILAS MINE.—By the politeness of Mr. A. Martinon, we are permitted to lay before our readers to-day a portion of an interesting report descriptive of one of the richest mining districts of Mexico, in the State of Chihuahua. The report contains many facts which we are sure will be read with satisfaction by those interested in mining, and we shall continue its publication in future numbers.

ANOTHER CEMENT MILL.—Mr. Thomas McAuley leaves the city by to-day's up-river steamer, for the purpose of putting up another mill for working cement, similar to the one constructed under his direction at French Corral, and noticed by us a few weeks since. The present mill will be erected for Mr. M. J. Hydcliff at Red Dog, and will consist of ten stamps, to be driven by a hurdy-gurdy wheel, attached directly to the cam shaft. The machinery has been constructed at the Miners' Foundry.

COPPER IN ANIMAL TISSUE.—A distinguished chemist of Hamburg, after numerous and careful experiments has discovered traces of copper, and in some cases lead, in the remains of animals. He has found copper and lead in human flesh, and copper in the intestines of beasts of prey, in beef, in poultry, in hen's eggs, in fish, crustacea, insects, spiders, and snails.

ANCIENT WATERFALLS.—The women of Ninevah and Assyria, three thousand years ago, dressed their hair precisely in the style of 1865, with "waterfalls." The fact is proved by works of art in sculpture, still well preserved

IN our next will appear an interesting article on the subject of electricity. Also, one of the most accurate descriptions yet written of the State Capital buildings at Sacramento.

A NEW CORPORATION BILL.

Hon. Henry Robinson introduced in the State Senate, on Tuesday last, one of the most important bills of the session, relating to the levying and collection of assessments upon the capital stock of incorporated companies. The bill was referred to the Committee on Corporations, and ordered printed. A copy of the same will be found in another portion of this paper. Probably no law on our Statutes, passed with as good intentions, has been found more difficult in practice than the "Act Concerning Assessments on Corporations," approved April 4th, 1864, and there can be no real friend of the mining interest, who has experienced the effects of its narrow and arbitrary provisions, but who will favor the wholesome changes suggested by the new bill.

Mr. Robinson's bill appears to be offered as a substitute for the old law, probably to avoid the injudicious multiplicity of acts upon the same subject. It retains a similar course of proceedings, but on a more liberal scale, equally guarded for the interests of stockholders

The additional features of Senator Robinson's bill permits the corporation to purchase its own stock when outside parties do not bid sufficient to pay the amount due for assessments—a just provision, and often necessary to the progress of the work and operations of a company. It also requires a plaintiff, who claims that his stock has been illegally sold for delinquent assessments, to come forward and offer to pay the amount expended by the purchaser, and commence his action within six months of the date of the alleged illegal sale. No objections can be made to so reasonable a demand upon a claimant.

An amendment is made in Section 4 for the purpose of giving longer time for advertising, *when desired*, to accommodate companies owning claims in distant localities, as, for instance, Humboldt, Reese River, Los Angeles, Arizona, etc.; or companies who may have stockholders living at a great distance from both the mine and place of incorporation. It can work no harm to give *longer* notice, or *greater* length of time, to stockholders, provided the Board of Trustees, who have themselves to set the dates, deem it judicious. In fact, we would advise a wider limit of time than the new bill proposes.

The new bill does away with the necessity of appointing one certain day for advertising the delinquent sale—a requisition which has cost Secretaries great trouble, and oftentimes the companies much extra expense, in re-advertising, on account of failure to insert the advertisements upon the appointed day at both the mine and the place of incorporation. When the place of business and the location of the mine happen to be situated in separate interior counties, it is liable to occur that no paper is issued at both places on the same day where advertising is required. By the appointment of a day for advertising delinquent stock, as provided for in the old law, no chance is given to hear from the superintendent of the mine, or other parties who may, as agents, be receiving money on assessments, before the delinquent list has to be made out and forwarded for publication in the interior. In fact, in order to meet the requirements of the law of 1864, Secretaries in San Francisco are forced to make up their lists from one to three weeks in advance, to send to Reese River and other outer districts, inserting often the names of parties in this city, who are almost certain to come forward and pay their assessments before the advertisement issues, although their payments will be made too late to have their names withdrawn from the delinquent list. The new bill retains the wise provision that the day of sale shall be published in the first, or assessment notice, and while it does not shorten the term of publication of either of the assessment or sale notice, it allows both to be extended. The time for which postponements may be once made is extended to thirty days.

We have had much experience with the workings of the old law. It is very onerous to all parties interested. We think the new Senate bill a very judicious one, and hope it will speedily pass.

OPENING CEREMONIES.—The opening ceremonies of the Mining and Metallurgical Department, connected with the City College, corner of Stockton and Geary streets, took place last evening, in the Philosophical Room connected with the College. A large number of the pupils and friends of the Institution were present—more than were able to secure seats. Appropriate addresses were made by Mr. Veeder, the Principal of the Institution; Prof. Price, of the Chemical and Metallurgical department, H. P. Coon, Esq., Mayor of the city, Dr. Gibbons, and others. The addresses were all happy and appropriate in their character. Professor Price spoke at considerable length, giving the plan and object of his especial department. Mayor Coon prefaced his remarks with a handsome compliment to the MINING AND SCIENTIFIC PRESS, its usefulness, etc., and read the description of the laboratory, which was given in our last number. We regret that want of space will not admit of a fuller notice of the remarks of these and other gentlemen. A free course of lectures on general and practical chemistry was announced, to be delivered by Prof. Price, at the College. The lectures will be delivered every Tuesday evening; the friends of the Institution and of Education generally, are invited to attend.

LECTURES ON MINING AND AGRICULTURE.—We have received an announcement of courses of lectures upon Chemistry, Geology and Mining, to be delivered in the Department of Science of the College of California. The introductory lecture upon "Science and Scientific Schools, in their Relation to Mining Agriculture and the Kindred Arts," was delivered by Prof. Blake, on Tuesday evening last, in the College chapel, Oakland. The Chemical lectures are now in progress, and we intend to give some notice of them, and of the general course of instruction, next week.

COLORADO'S new Senators went to Washington under the instructions to labor for the change of the main line of the Pacific Railroad, so that it shall go through Denver and the center of population and development in that State, and over the Rocky Mountains by the Berthond Pass.

ROASTING PROCESSES.

EDITORS MINING AND SCIENTIFIC PRESS: In your issue of February 10th, I notice an article, under the title of "Roasting of Sulphurets," which is signed "W. H. Munning." I have no acquaintance with the writer, and have no recollection of ever hearing his name mentioned, and should take no notice of his communication were it not for the fact that he has taken occasion to make use of my name in a deprecatory manner, in introducing to the world an invention of his own for roasting sulphurets. He commences his communication by condemning my process; remarking at the same time that he does not care to point out its defects. Did Mr. Manning ever try my process? If not, why does he attempt to introduce himself to the world, as an inventor by condemning another, about which he knows little or nothing? If Mr. M. has anything to offer to the public, why does he not give it direct, and allow it to stand or fall upon its own merits, instead of attempting to build it up by an attack upon my process.

Perhaps Mr. M. may be as ignorant of what his own furnace can do as he appears to be of mine. What quantity of sulphurets has he ever worked by his process; and how much has it cost him per ton? How much gold and silver does he leave in the ore? These would be important questions for him to inform us upon in connection with his process. Mr. M. calls me to account for remarking that there is no cheap process known for desulphurizing, and appears to think that I should have known of his own. He will please excuse me for not having previously made his acquaintance.

Roasting ore is not as easy a process as that of roasting beef. If we apply heat to the beef, it gets cooked; but no matter how much heat we apply to ores, although we can smelt them, still we cannot get all the sulphur from them by an ordinary heat, with free access of air; the sulphur will sooner melt with the metal than leave them. The old doctrine is, give your ore plenty of air, and you roast well and quick; I say, exclude the air and not half the heat is required. Let any one try it for himself by using either pipes, retorts or crucibles; heat both in the same fire, charged with the same ore—one open and the other closed—and you will find that the ore in the closed retort will be done in much less time than the ore in the open retort.

J. MOSHEIMER.

IMPORTANT PURCHASE — CORRECTION.—The Nevada papers, in making mention of the purchase of the Cambridge mine, in Grass Valley, have erred with reference to the amount paid for the same. Thirty, instead of twenty thousand dollars, is the consideration given. The purchase has been made by Messrs. Cronise & Co., and cannot fail to turn out an excellent investment. The mine is an extension of the well-known "Lucky Mine." The same parties have also purchased the Jefferson mine for $18,000, and the whole property has been divided into sixteen shares of $3,000 each. A contract for the erection of a mill has already been entered into, to be completed in sixty days. Ten stamps will be put up at first, with a power sufficient to drive twenty, as soon as that addition may be needed.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

BY W. A. GOODYEAR.

[CONTINUED FROM PAGE 98.]

Let us now determine whether the curve is convex or concave towards the two axes. Before we can do this with respect to the axis of y, it will be necessary to determine the real sign of x, or, since $\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}}$ is always less than unity, and its logarithm is therefore always negative, to determine the *relative* values of $\sqrt{a^2-y^2}$ and $\frac{a}{2}\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}}$. To do this, put again $\sqrt{a^2-y^2}=z$, and

$$\frac{a}{2}\log_e\frac{a-\sqrt{a^2-y^2}}{a+\sqrt{a^2-y^2}}=u, \text{ thus}$$

(19) $u=\frac{a}{2}\log_e\frac{a-z}{a+z}$. Therefore, differentiating now with respect to z,

(20) $\frac{du}{dz}=-\frac{a^2}{a^2-z^2}$, Equation (20) shows not only that u is a decreasing function of z, but since $\frac{a^2}{a^2-z^2}$ is always *greater* than unity, it also shows that u always decreases *faster* than z increases. Now, since when $y=\pm a$, (which numerical value it can *never* exceed), both z and u are $=0$, and when y diminishes numerically, u *always* decreases faster than z increases, it follows that if, as in (16), we take the upper sign in equation (18), x is always negative, and if, as in (17), we take the lower sign in equation (18), x is always positive.

We can now determine the convexity or concavity of the curve towards the axes.

If $x\frac{d^2x}{dy^2}$ is positive, the curve is convex towards the axis of y; if negative, it is concave. The same conditions hold with respect to y $\frac{d^2y}{dx^2}$ and the axis of x.

Now, from (3), $\frac{dx}{dy}=\pm\frac{\sqrt{a^2-y^2}}{y}$, therefore

(21) $\frac{d^2x}{dy^2}=\mp\frac{a^2}{y^2\sqrt{a^2-y^2}}$. If we take upper sign here, and therefore the upper sign also in (18), both x and $\frac{d^2x}{dy^2}$ are negative. If we take the lower signs, x and $\frac{d^2x}{dy^2}$ are both positive. $x\frac{d^2x}{dy^2}$ is, therefore, always positive, and the curve is always *convex* towards the axis of y.

From (3), $\frac{dx}{dy}=\pm\frac{\sqrt{a^2-y^2}}{y}$, therefore,

(22) $\frac{dy}{dx}=\pm\frac{y}{\sqrt{a^2-y^2}}$. Put this $=u'$, then $\frac{d^2y}{dx^2}=\frac{du'}{dx}=\frac{du'}{dy}\times\frac{dy}{dx}$. Therefore

(23) $\frac{d^2y}{dx^2}=\frac{a^2y}{(a^2-y^2)^2}$, and

(24) $y\frac{d^2y}{dx^2}=\frac{a^2y^2}{(a^2-y^2)^2}$. This, being a perfect square, is always positive. Hence, the curve is always convex towards the axis of x.

When $y=0$, $x=\pm\infty$, and $\frac{dy}{dx}=0$. The axis of x is therefore an asymptote to the curve in both directions.

The above conditions are sufficient to give us an idea of the general form of the curve, which has four similar and equal branches—one in each of the four angles formed by the axes.

From equation (18), tables may, of course, be easily calculated for constructing the curve if desired.

To find the length of the curve, denote the length of any portion of the curve by s. Then, to find s in terms of y, we have the general formula,

$\frac{ds}{dy}=\sqrt{1+\left(\frac{dx}{dy}\right)^2}$; Hence,

(25) $\frac{ds}{dy}=\sqrt{1+\frac{a^2-y^2}{y^2}}=\pm\frac{a}{y}$

Integrating (25), we have

(26) $s=\pm a\log_e y+C$. If we measure the length s, from the cusp as a starting point, then when $y=a$, $s=0$, and therefore $C=\mp a\log_e a$. Therefore,

(27) $s=\pm a(\log_e y-\log_e a),=\pm a\log_e\frac{y}{a}$. If we wish s to be positive, we must take the lower sign in (27), since $\log_e\frac{y}{a}$ is always negative, y being less than a. Equation (27) then becomes

(28) $s=-a\log_e\frac{y}{a}=a\log_e\frac{a}{y}$, which is always positive,

To find the area included between a branch of the curve and the axis of x.

Denote this area by A. The general formula is then $\frac{dA}{dx}=y$. But

$\frac{dA}{dy}=\frac{dA}{dx}\times\frac{dx}{dy}$. Therefore, in the tractory,

(29) $\frac{dA}{dy}=\sqrt{a^2-y^2}$. Integrating (29), we have,

(30) $A=\int\sqrt{a^2-y^2}\,dy=$

$$\frac{y}{2}\sqrt{a^2-y^2}+\frac{a^2}{2}\sin^{-1}\frac{y}{a}+C.$$

Taking the integral in (30) between the limits $y=0$ and $y=a$, we have for the whole area of one branch of the curve,

(31) $\int_0^a\sqrt{a^2-y^2}\,dy=\frac{\pi a^2}{4}$, which is equal to the quadrant of a circle whose radius is a. Since there are four equal branches, the total area of the curve equals a circle whose radius is a.

[To be Continued.]

In 1860 there were over eighty-two thousand miners in California, and only about twenty thousand farmers. The disproportion is, probably, not so great now; but mining is, and for many years must continue to be, the predominating industrial occupation of the people of this coast. Our manufacturing, commercial and agricultural interests are rapidly increasing in importance, but their future success and permanence depend almost entirely upon the mines. Shut off the market that the mining regions afford and the supply of the circulating medium that flows from them and the business of the State would in a very short time become completely paralyzed. The mines are unquestionably the primary source of whatever prosperity the State enjoys and anything looking to their further development should be encouraged by all classes.

The navigation of the Colorado river, is now fully established, giving facilities for opening and developing the gold, silver and copper mines of California and Arizona, thereby greatly increasing the value of the mining interests in that section.

Island Coal.—The Newport (R. I.) people are burning coal which is mined upon their island. It costs them $8.60 per ton.

The Chemical Action of Steam on Metallic Sulphurets (Schwefelmettale) at a High Temperature.

[Translated for the Mining and Scientific Press from the German of Carl Fredrick Plattner, (Die Metallurgischen Rastprozesse, Freiburg, 1856.]

BY G. W. BAKER.

[Continued from Page 99.]

The application of steam for the decomposition of metallic sulphurets, and at the same time winning the sulphur and sulphuric acid, in practical metallurgical operations, was first proposed by Rodgers, likewise by Rousseau.—*London Art Journal, August*, 1843, *p.* 7. *Dingler's polyt. Jour. Bd.* 89, *S.* 443. *Sowie Bergwerks freund, Bd. VII. S.* 109 *(L' Institute, durch polyt. Centralblatt.)*

Bergwerk's freund, Bd. VII. S. 109. *(L' Institute, durch polyt, Centralblatt.)*

Both of them were convinced that the employment of steam could be made practically useful with metallic sulphurets; first, for the complete conversion of the sulphurets into oxides, as is done in the ordinary atmospheric roasting; and, second, to condense the sulphurous acid evolved in leaden chambers, for the production of sulphuric acid, and afterwards successfully win the sulphur from the sulphureted hydrogen formed in the operation.

Cumenge undertook experiments concerning the employment of steam, chiefly for the separation of arseuic and antimony from their ores, and which, indeed, in a technical point of view, could be submitted to metallurgical treatment practically. Since this author, these experiments have yielded favorable results.—*Annal. des mines, Serie* 5, *Tom.* 1, *S.* 425; *auch Berg-und huetten m. Zeitung*, 1853, *S.* 561, 580 *etc.*

Patera, also, roasted the rich silver ores of Joachimsthaler, with favorable results, under the influence of steam. The apparatus which he at first employed, consisted of a muffle (without draft holes), the fore part of which was closed with a tile. Steam, obtained from a distillate, was conducted over the ore by means of a glass tube, and out by another tube, which connected the arch of the muffle with a series of Wolf's bottles for the condensation of the volatile products. These consisted of metallic arsenic, arsenious acid; some sulphur, with finely divided ore, was carried over by the current of steam. A small openiug was left in the stone closing the fore part of the muffle, easily closed with a clay stopper, and through which the operation could be observed and the ore introduced.—*Jarbuch der k. k. geolog. Reichsanstalt*, 5 *Jahrg. No.* 3, S. 611. *Berg-und hutten m. Zeitung*, 1855, *S.* 131. *Berwerks freund, Bd. XVIII. S.* 295.

Red Silver (Rothgiltigerz) was speedily reduced to metallic silver. An ore containing 18 marks of silver to the 100 pounds, or about 8.5 per cent., was completely freed from arsenic after five hours roasting. The reduced silver could he readily seen with the naked eye.

In order to separate the silver from the other metals, the greater part of which existed in the state of oxides, Patera employed with advantage a mixture of moderately diluted sulphuric acid and saltpeter, by which the silver, together with the oxides existing, and the salts, respectively, of nickel, cobalt, copper, bismuth and arsenic, were dissolved. The silver was precipitated out of its watery solution, as chloride of silver. This was reduced with the aid of a simple galvanic apparatus and smelted. The residue, after being well lixivated, contained only from 10 to 12 loth of silver to the 100 lbs., from an ore which originally held from 14 to 18 marks, and consisted of nearly 50 per cent. of the mineral subjected to treatment. The nickel, cobalt, copper and bismuth, could be easily recovered by ordinary methods.

Experiments on a somewhat larger scale, also in a muffle, simplifying the condensation of the volatile products of the roasting, prove that this mode of treatment might be employed with advantage for desilvering the rich ores of Joachimsthaler, in quantity, if they also contain other metals of value.

From the foregoing results, especially the designated trials, it follows:—That metallic sulphurets (which give off no sublimate of sulphur at a high temperature) in a glowing condition, excluding the air and treated with steam, are slowly decomposed by the gaseous products of the fuel used for their inflammation; that the sulphur of the mineral operated on, unites with a part of the hydrogen of the steam forming sulphureted hydrogen, which becomes free. The metal, if at a temperature sufficient for oxidation, unites with the oxygen disengaged from the steam; this oxide is easily reduced to metal, if it either remains at the highest stage of oxidation, or has the disposition to cede its oxygen to an equivalent portion of the sulphur of the remaining undecomposed sulphuret; that sulphurous acid is evolved, but which, when it encounters sulphureted hydrogen is decomposed by the latter, forming water and eliminating sulphur. Whenever the sulphuret is found to be at a higher or lower stage of sulphurization, and the metal more or less favorable to oxidation at a high temperature, there will then be evolved, besides sulphureted hydrogen, also a greater or less quantity of free hydrogen and sulphuric acid, sulphur vapor being freed. Such sulphurets will also give a sublimation of sulphur when air is not admitted, a part of the sulphur becoming free without votalization. If the sulphur abounding metal is of such a constitution that it possesses the disposition to decompose water, or its oxide is, as per example, the oxides of iron and of copper, inclined to cede its oxygen easily to sulphur, it will remain at a lower stage of oxidation, iron as a suhoxide and copper as a suhoxide of copper; but if it is not at all favorable for taking up oxygen at a high heat, or retains it fixed in greater quantity, it will be remain in a metallic condition; as for example: Silver, which, when it, under certain conditions, takes up some oxygen, easily parts with it again. When the sulphurets are such as form volatile oxides, origiuating oxysulphurets, they are removed, as is the case especially with those of antimonial and arsenical sulphurets.

The results are different when sulphurets are decomposed under the influence of steam, admitting free access to the air; acting, too, in the presence of the gases formed by the burning fuel, which invariably holds free oxygen. It is true that steam will act as has been already stated; but at the same time the oxygen of the air will operate, and hence the sulphuret will be oxidized through these agencies more speedily and much easier. Whilst sulphureted hydrogen is formed through the decomposition of the sulphuret by steam, the sulphur will also be burnt and volatalized. More sulphurous acid is formed, which, by catalysis, will in part be converted into sulphuric acid, and the oxide formed from the sulphurets will not only be brought to a higher stage of oxidation, but it will also give rise to sulphates of the metals, which will remain partially or wholly unaltered, being difficult of decomposition, unless at a higher temperature. The more constantly air has opportunity to act with steam on red hot sulphurets, so much the more nearly will the roasting approach that of the ordinary roasting in the absence of steam, and hence at least the purpose of separating the sulphur as nearly complete as possible, will he attained.

Since the experiments in the laboratory demonstrate, also, that the decomposition of sulphurets by the employment of steam in the absence of air, can only be accomplished at a higher, and, indeed, in most cases, at a much higher heat than that required in the ordinary roasting, admitting the air, is a circumstance with regard to the consumption of fuel, which, at least here, is worthy of great consideration. When, again, it is further considered that the decomposition of sulphurets by steam, in the absence of air, requires a much longer time than the ordinary roasting with air, even if at no greater cost of fuel, added to the increased cost of labor per quintal of ore, it will be comprehended that the roasting of metallic sulphurets, under the influence of steam, can be resorted to with advantage only in certain cases, as for instance: Where a separation of sulphur, arsenic and antimony, as completely as possible, is proposed; or when, in the roasting of rich silver ores, the loss of silver by volatalization should he avoided.

Up to the present time, so far as is known to me, the application of steam in large roasting processes, has been found applicable entirely and chiefly only in shaft furnaces for iron ore, iron pyrites, arsenical pyrites, and other mixed metallic sulphurets, such as copper pyrites and copper stone. Patera has, it is true, decomposed rich silver ore by steam, and hence, in that respect, has paved the way for larger operations with advantage.

The first experiment in roasting iron ore under the influence of steam, was undertaken, as already alluded to, in the year 1843, in Russian-Finland, at the iron works of Dalsbruck, under the direction of Nordenjold. The desired results having been attained, this method was introduced, not only in Finland, but also in the mountains of the Ural; and since then in many other places this practice has been followed with like favorable results.

Iron ore, in not very large pieces, put in a shaft furnace, should he so heated by the flame of wood beneath the supply of steam, that as little undecomposed air as possible enters the furnace with it, and the iron ore should he of a constitution such as will, through the bare heating to a red heat, acquire such a porosity as to make it penetrable to the center by the gaseous products of the fuel admitted, commingled with steam; it is to be understood, also, that the intermingled sulphurets, and sulpho-arsenical-pyrites, shall he retained in the heat sufficiently long to he decomposed, and the metal bound up in sulphur and arsenic to be

completely changed into oxides, as by the ordinary roasting without the application of steam. There are, however, ores so dense that they do not become porous by heat, as, for instance, is the case with magnetic and ologestic iron ore; or, if the ore is treated in large pieces, the success will not be so favorable as desired.

Although wood and gas from shaft furnaces, or inflammable gas, specially generated, are best adapted for a proper roasting, since they yield no fuliginous flame, yet occasionally good coal may be serviceably employed.

At iron works where the shaft furnaces are worked with charcoal, producing a large amount of very fine coal dust, the latter is utilized in roasting furnaces as fuel for the ordinary roasting, by stratifying it with the ore. It is also sometimes used in shaft furnaces arranged for flame firing, besides the burning fuel, when at the same time steam is admitted to the ore chamber. When, also, by this means it is proposed to maintain the ore at a high temperature, that object will be gained in part, but at the expense of the following mischief, viz: The coal dust fills up the interstices in the layers of ore, not only interrupting the draft, but the coal will decompose one part of the steam, forming thereby, besides a small quantity of carbonic acid gas, a considerable quantity of carbonic oxide, and also a still greater quantity of hydrogen; of which gases the first and second have no influence, and the latter only a feeble influence on the sulphuret. The steam, which has already intermingled exteriorly with the gaseous products of the fuel, being again dilated with other gases, penetrates the pores of the ore very feebly.

A similar result would happen when Kohlen eisenstein (an ore found in coal formation), which sometimes contains thirteen per cent. of carbon, is submitted in roasting to the action of steam.

In the mountains of Altai, cupriferous sulphurets and copper matt, holding about forty-five per cent. of copper, are roasted in shaft furnaces with steam, whereby a saving is made on the ordinary roasting in stalls, especially if the matt requires much flame, not only in time, but also in fuel, and afterwards by smelting the roasted matt, crude copper is obtained freer, especially from antimony, than when the roasting is done in stalls.

From Our Regular Correspondent.

THE VOLCANO DISTRICT.

The morning of the 29th found me at Volcano, enjoying the good cheer of the St. George, in company with my friends Fenton of Enterprise City, and Perkins of Amador, with whom I had come up from Amador City on the day before.

The village of Volcano lies in a deep valley formed by the junction of three branches of Sutter Creek, which, united, flow through a narrow gorge to the westward, a wall being built across which would make the finest reservoir in the world; as a wall 500 feet in length could be made to give an average depth of 100 feet to the water covering a thousand acres! The placer mines of Volcano, like most of those of California, have seen their palmy days; still, however, an active business is done in the way of derrick-mining—lifting the gravel from basins which are too low to be washed in the ordinary way, in tubs suspended to derricks worked by horse or steam power, to boxes placed at a convenient hight for washing.

I spent the day, after breakfast, in visiting the quartz mines of the district, which are now beginning to attract great interest. I paid my first visit to the mill of S. C. Fogus & Co., situated on Sutter Creek, one and a half miles below Volcano. The mill, of ten stamps, is well built; but as the site is subject to overflow from the creek, it is the intention of Mr. Fogus to move it higher up on the bank, should the further development of the mines justify the erection of more machinery. The mill is driven by water, which is abundant the year round. The company own four ledges, the principal of which is the

WHITMORE AND MONDAY,

Of which they claim 4,200 feet. It has been opened at various places, within these limits, but to no great depth at any given point, the deepest shaft being eighty feet. A tunnel is driven in on the ledge near the north end of the claim, a distance of 200 feet. It is intended to connect this with the principal shaft, which will require it to be run 700 feet further, and the shaft to be sunk to a depth of between two and three hundred feet. The present workings show a bold, well defined ledge, running north and south, with a dip of forty-five degrees to the westward, and from four to six feet wide. The rock worked at the mill has thus far paid from ten to thirty dollars per ton.

On leaving the mill, Mr. Fogus rode out with me to visit

THE CONFIDENCE,

Lately purchased from the discoverers, by San Francisco capitalists, for, I believe, $20,000. It is being managed for the owners by Mr. Tulloch, one of the oldest prospectors of Volcano. The course of the ledge is north and south, and its dip nearly vertical. One shaft has been sunk to a depth of ninety feet without striking water, developing a ledge with an average width of two and a half feet. Since it came into the present hands none of the best rock has been worked, but of the "refuse," as it is called by the miners, a few tons have been crushed at Fogus & Co.'s mill, and yielded about ten dollars per ton.

THE GOLDEN GATE MINE AND MILL,

Are located three miles above Volcano, on the North Branch of Sutter Creek. The vein has been prospected only to a depth of thirty-four feet, but has thus far proved very rich. It is located in a slate formation, and lies in a north and south direction, with a dip of forty degrees to the eastward. The mill is of ten stamps, very well built, and with wheel for winter, and steam engine for summer use. Two of Knox & Guiod's, and two of Knox's pans are used. The quartz has heretofore paid about forty dollars per ton.

From the Golden Gate I rode to

THE PIONEER,

Situated about four miles above Volcano, on another branch of Sutter Creek. As it was now too late to return to Volcano over the breakneck path by which I had come, I accepted the generous hospitality of the superintendent, Mr. Ambler, and spent the night. After an early breakfast I went with Mr. A. to look at the mine. The ledge is in a granite formation, its strike being nearly northwest and southeast, and its dip nearly vertical. The rock is the richest in sulphurets that I ever saw. The tunnel through which the ledge has been worked heretofore was obstructed by water from the recent rains, so that we could not pass through the mine, but the large amount of ore lying outside the mouth of the tunnel showed conclusively the character of the vein. Its width is from sixteen to twenty inches, and such of the quartz as has been tested by processes capable of separating the gold from the sulphurets, has yielded from $50 to $100 per ton. Since the purchase of the property by the present owners, (Messrs Meader & Ambler), measures have been taken to open it in excellent style. A shaft, eight by ten feet in the clear, with four compartments, expected to connect with the tunnel at a depth of 108 feet, has been sunk to a depth of eighty feet, and is still being carried on with vigor. A fine boarding house is in course of erection, and a 5-stamp water-mill with amalgamators and concentrators, was almost ready to start. I was accompanied back to Volcano by Mr. Ambler, who was on his way to Pine Grove. Passing through Volcano I came on to

THE SORACCO MINE,

Located two miles below Volcano, on a branch of Sutter Creek. This mine, which I noticed more at length in my letter from Rich Gulch, last April, has been more thoroughly explored and promises to be one of the best in Amador county. It is now said to be owned by Col. Rogers, who is at present in New York. It was purchased from the original owners, the Soracco Bros., and McLane, by Mr. A. H. Rose, former owner of the Keystone mine at Amador City, it is said, for $56,000. It has been opened to a depth of 225 feet, and by tunnels horizontally a distance of 800 feet, showing an average width of thirty inches. The quartz is said to have yielded an average of $25 per ton, though the mill, of ten stamps, driven by water power, is rather a poor thing. Here I fell in with my friend Fenton, whom I had left in Volcano on the previous afternoon, and in his company visited the Harvey and Aorta ledges, after which we returned to Amador City, arriving late, tired and hungry, but on the whole well pleased with our trip.

THE HARVEY

Is owned by Messrs. Grundy and Harvey, and has only been opened to a depth of about forty feet, the owners having been embarrassed by want of capital. The ledge is from three to five feet wide, and I was informed by Mr. Grundy that 100 tons, which had been worked, had paid from sixteen to eighteen dollars per ton. The owners are erecting steam hoisting works, which they expected to start in about a week, which would enable them to develop their mine to better advantage. Another claim is being opened on the same ledge by the former owners of the Soracco, with encouraging prospects of success.

THE AORTA

is situated near Pine Grove, and is claimed by Messrs. Barron, Ames and Fike. It has been opened by a shaft to a depth of sixty feet, and drifts have been run each a distance of 150 feet. I was informed by Mr. Barron that some 200 tons had been worked with an average yield of $35 per ton. The ledge is from one to two feet in width, its general course being nearly north and south.

After leaving the Aorta we made a flying call at the Tellurium mill, where we saw some very fine rock, but were prevented from making very extended observations for want of time.

Yours etc. D.

[Written for the Mining and Scientific Press.]

"Gold Bearing Sulphurets and their Reduction."

MESSRS. EDITORS:—I have noticed in your late issues an advertisement signed "J. Mosheimer," in which he offers the mining community a "New Patent Roasting Process," for for ronsting ore or concentrated sulphurets (of iron?). I should not take any notice of the advertisement in question, were it not that the process advertised is a portion of an invention of my own; at least, I honestly believe that I am the inventor of it. It was matured by me in the year 1858, and a full description of it lodged in the secret archives of the Patent Office, in the early part of 1859. The *portion* of it "adopted" by "J. Mosheimer" was confided to him by me in the month of April of the same year (1859); and was described in my communication to your journal of December 9th last. Mr. M. has applied for, and lately obtained, a patent for it from the United States Government. As my invention has now become public property, and is not patentable, I will proceed to lay before your readers, and the public in general, a description of the *whole* of the process, as follows:

I take the sulphurets, seleniurets, arseniurets, tellurets of iron, etc., mixed or not with other mineral substances or compounds, and expose them alone, or combined with carbon, liguine, or their equivalents, in tubes or retorts of fire-clay or other appropriate material (arranged vertically, horizontally, or inclined, in a furnace,) to a red heat; atmospheric air being excluded, till the greater portion of the arsenic and tellurium, and all the sulphur and selenium, in excess of a single equivalent, are expelled, either in a free state or in combination with carbon, leaving the gold and silver in combination with the resulting proto-sulphurets, none being lost or volatilized in the operation. The carbon or its equivalents is used to form bisulphuret of carbon with the excess of sulphur, and thereby avoid loss of gold; and also to act mechanically by increasing the porosity of the mass and its permeability by vapors, and to diminish the liability to fusion and coalescence of the proto-sulphurets.

I then take these proto-sulphurets and mix them with chlorides, iodides, bromides or fluorides, of the fixed alkalies or alkaline earths, or other neutral salts, fusible and irreducible by carbon at a red heat, in such proportions as to form a *magma*, when raised to a temperature about 1,000° Fahr., of a proper consistence for grinding. To this mass I add sufficient pulverized metallic lead or bismuth, litharge, or ceruse, etc., to absorb all the precious metals present, and also about five per cent. of carbon. I place the mixture, intimately commingled, in a convenient apparatus, such as a revolving cylinder or cast-iron arastra, covered with a dome for the more or less perfect exclusion of atmospheric oxygen and retention of evolved vapors, and having raised the temperature to from 1,000 to 1,500° Fahr., I continue mixing, stirring, grinding, or triturating the mass by means of discs, rakes, or other well-known implements, till the precious metals present shall be wholly or principally absorbed by, and alloyed with the lead or bismuth. I then remove the mass, separate the metallic granules by washing or otherwise, and extract the gold and silver in combination by cupellation or solution in acids.

Secondly—I propose passing aqueous vapor through or over the mineral compounds mentioned, mixed or not with carbon, lignine, or their equivalents, at a bright red heat in tubes, retorts, or other appropriate vessels (closed from the air), till the sulphur, selenium, tellurium, arsenic and kindred substances shall have been evolved, principally in combination with hydrogen—the oxygen of the water, combining with the iron, etc., present, whereby I obtain magnetic oxide of iron, containing all the gold and silver originally existing in the mineral. I then subject this compound ($Fe^3 O^4$) for the extraction of the precious metals, either to amalgamation in any suitable apparatus, for which I prefer the Mexican *tahona* or the Saxon barrel; or to triturntion with lead or bismuth, or their oxides, with carbon and fusible salts, at a high temperature; or, lastly, I dissolve and extract the metals with well-known solvents, as alkaline chlorides, and the hyposulphites and hypochlorites of the alkalies and alkaline earths.

Thirdly—I propose, instead of the vapor of water in the last process, passing chlorhydric acid gas over the ignited compounds, whereby by double decomposition I obtain sulphydric acid (which may be utilized in preparing sulphuric acid, bisulphite of lime, and other manufactures) and a mixture of the proto and per chlorides of iron, which partly volatilizes, and may be condensed by coke columns, or in other appropriate condensing apparatus, and partly remains mixed with the gangue and residuary matters from which it may be extracted by solution in water.

I propose peroxidizing these proto-chlorides, by exposure of their solutions to the air in shallow vats, by percolation through "graduation walls," or other well-known methods, and then to recover the hydrochloric acid by evaporation to dryness and distillation at a red heat, in retorts or cylinders fixed in a suitable furnace. From the mass remaining in the retort, after treatment with gaseous hydrochloric acid, I propose recovering the precious metals by any of the methods previously mentioned.

I do not claim the decomposition of pyritous matters at a red heat by roasting, in contact with air, or matters containing oxygen free to combine with the sulphur, etc., the same having been used from time immemorial. Nor do I claim the decomposition of pyritous matters at a red heat by aqueous vapor, with the intention of collecting the volatile products of the decomposition, the same having been known and practiced. Nor do I claim the treatment of bisulphurets and magnetic sulphurets, in closed vessels at a red heat alone, for the evolution and collection of sulphur; nor in admixture with carbon and carbonaceous substances for the production of the alcohol of Lampadius *(bisulphide of carbon)*, the same having been known and used. But I do claim having discovered that all pyritous and similar substances of an auriferous or argentiferous nature, being decomposed, or partly decomposed, by the processes given, the arsenic, sulphur, selenium, tellurium, and other elements inimical to the amalgamation and extraction of the valuable metals, may be partially or entirely eliminated and removed without any loss of the precious metals by volatilization or otherwise.

And I claim the process of decomposition of auriferous or argentiferous pyritous matters in the manner described, and with the apparatus (or other appropriate apparatus) indicated, with reference solely to the final isolation of the precious metals as the result sought to be obtained, irrespective of the economization of the sulphuret of carbon, sulphur, sulphydric acid, carburetted hydrogen, chlorides and oxides of iron and arsenic, or other incidental products of the decomposition. And I claim, furthermore, the driving off the excess of sulphur, selenium, arsenic, tellurium, antimony, etc., previous to the treatment of the auriferous and argentiferous minerals with lead, carbon, and fusible salts, in appropriate apparatus (preferably sealed to prevent the admission of atmospheric oxygen), substantially as set forth and above described.

JOHN SCOTT,
Metallurgical Chemist.

A STRANGE ANIMAL.—The Tuolumne *Courier* says that Mr. John Ede, lately caught at Chaparral Hill, in that county, a strange animal of the cat or feline species, which is thus described: "Its head and tail resemble a raccoon, to which its habits also assimilate when it wants to go to sleep. Its body somewhat resembles a weasel, its fore feet those of a cat, having the feline faculty of withdrawing its claws, and lastly its hind feet those of a fox. It was tolerably tame, and would allow its master to handle it very readily. Its color was a kind of rabbit-gray, excepting the tail, which was ringed precisely like a raccoon. Mr. Ede called it a civet cat, and others called it a mountain cat. Some twelve years ago, continues the *Courier*, we saw some similar animals on the Feather river, but the miners there had no name for them but the general one of wild cat. The Indians there called them 'chilli-chillin,' and said they were good to eat. They make excellent monsers when tamed."

RAPID TRAVELING.—In a grand race of the ice-boat fleet, which recently took place on the Hudson River, near Poughkeepsie, the Minnehaha, or winning boat, made ten miles in eight minutes time. This is at the rate of seventy-five miles an hour—pretty rapid traveling.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Saturday, February 17.

17 shs Savage at 970@1225 per foot.
1 sh Savage at 980 per foot, b 5.
2 shs Savage at 950 per foot, s 30.
13 shs Chollar-Potosi at at 310@300 per ft.
5 shs Chollar-Potosi at 305 per foot, b 3.
25 shs Hale & Norcross at 990@940 per foot.
5 shs Hale & Norcross at 955@970, s 3.
6 shs Overman at 50 per share, b 5.
16 shs Overman at 48@49 per foot.
5 shs Overman at 50 per foot, b 15.
156 shs Ophir at 440@435 per foot.
25 shs Ophir at 440 per foot, s 3.
120 shs Ophir at 450 per foot, b 30.
24 shs Ophir at 440 per foot. b 3.
17 shs Belcher at 190@215 per foot.
1 sh Belcher at 195 per foot, s 3.
3 shs Belcher at 200 per foot, b 5.
3 shs Belcher at 200 per foot, b 3.
1 shs Belcher at 220 per foot. b 30.
24 shs Crown Point at 910@900 per foot, s 3.
12 shs Crown Point at 900 per foot,
47 shs Yellow Jacket at 440@480 per foot.
6 shs Yellow Jacket at 445@465 per ft, s 3.
4 shs Yellow Jacket at 440@475 per ft, s 5.
6 shs Yellow Jacket at 445@450 per ft, s 30.
1 sh Yellow Jacket at 475 per foot, b 3.
20 shs Alpha, G H, at 260 per foot.
4 shs Gould & Curry at 1035 per foot
93 shs Imperial at 116@118 per share.
20 shs Imperial at 116 per share, s 30.
15 shs Imperial at 118¼ per share, b 5.
10 shs Imperial at 118 per share, b 3.
5 shs Imperial at 117 per share, s 5.
5 shs Imperial at 116 per sharo, s 15.
17 shs Bullion at 65@64 per share.
5 shs Bullion at 67¼ per share, b 30.
15 shs Bullion at 62 per share, s 3.
20 shs Exchequer at 6¼ per share.
100 shs Lady Bryan at 4 per share, s 3.
70 shs Lady Bryan at 4@4¼ per share
50 shs Lady Bryan at 5 per share, s 5.
8 shs Confidence at 40 per share.
6 shs Empire M & M Co. at 180 per sh.
3 shs Cal Steam Nav Co at 62 per cent, b 3.
3 shs Cal Steam Nav Co at 60 per cent.
Amount of sales.....$147,698 50

Monday, February 19.

17 shs Savage at 960@940 per foot.
2 shs Savage at 950@940 per foot, s 30.
7 shs Savage at 940@945 per foot, s 3.
2 shs Savage at 940 per foot, b 3.
59 shs Yellow Jacket at 425@470 per foot
7 shs Yellow Jacket at 445@425 per ft. s 3.
6 shs Yellow Jacket at 455@470, s 10.
4 shs Yellow Jacket at 470 per foot, s 5.
11 shs Yellow Jacket at 465@435 per ft, s 30.
5 shs Yellow Jacket at 455 per ft, s 28.
6 shs Yellow Jacket at 455 per foot, b 15.
1 sh Yellow Jacket at 465 per foot, b 20.
1 sh Yellow Jacket at 450 per foot, b 30.
2 shs Yellow Jacket at 430@425 per ft, b 3.
20 shs Hale & Norcross at 985@945 per ft.
2 shs Hale & Norcross at 955 per sh, s 3.
5 shs Bolcher at 200 per foot.
36 shs Ophir at 432½ per foot.
12 shs Ophir at 432½ per foot, s 3.
40 shs Exchequer at 7 per share, b 3.
10 shs Confidence at 41 per share.
30 shs Imperial at 116@116½ per share, s 30.
30 shs Imperial at 117½@118 per sh, s 3.
49 shs Imperial at 117½@118¾ per share.
49 shs Bullion at 63@67¼ per share.
105 shs Bullion at 67¼ per share, b 30.
75 shs Wide West at 9 per sharo, s 3.
5 sbs Empire M & M Co. at 180 per sh, b 3
1 sh Cal Steam Nav Co at 60 per ct, s 60.

AFTERNOON SESSION.

192 shs Ophir at 440@445 per foot.
6 shs Ophir at 450 per foot.
12 shs Ophir at 450 per foot, b 5.
12 shs Ophir at 455 per foot, b 30.
4 shs Yellow Jacket at 440 per foot.
1 shs Yellow Jacket at 440 per foot, s 5.
8 shs Yellow Jacket at 430 per foot, s 30.
4 shs Yellow Jacket at 442½ per foot.
2 shs Yellow Jacket at 442¼ per foot, s 3.
6 shs Yellow Jacket at 445 per foot.
1 sh Belcher at 200 per foot, s 3.
3 shs Belcher at 195@190 per foot.
5 shs Chollar-Potosi at 305 per foot, b 30.
7 shs Chollar-Potosi at 300 per foot.
20 shs Gould & Curry at 1000@1025 per foot.
6 shs Savage at 960 per foot.
6 shs Savage at 950 per foot, s 30.
12 shs Alpha, O. H., at 270@265 per foot.
24 shs Alpha, G. H. at 275@277½ per ft.
16 shs Alpha, O. H. at 280 per foot.
4 shs Hale & Norcross at 950@980 per foot.
2 shs Hale & Norcross at 980 per foot, s 10.
10 shs Hale & Norcross at 965@960 per foot.
30 shs Exchequer at 7@6¾ per share.
41 shs Bullion at 65 per share.
2 shs Bullion at 65 per share, s 5.
15 shs Bullion at 66 per share.
10 shs Imperial at 117 per share, s 30.
10 shs Imperial at 119 per share, b 3,
2 shs Empire Mill & M. Co. at 180 per sh.
Amount of sales.....$177,080 25

Tuesday, February 20.

15 shs Chollar-Potosi at 300@307½, s 3.
82 shs Chollar-Potosi at 295@315 per foot.
5 shs Chollar-Potosi at 300 per foot, s 30.
5 shs Chollar Potosi at 314 per foot, b 2.
1 sh Savage at 940 per foot, s 30.
6 shs Savage at 940@915 per foot.
1 sh Savage at 920 per foot, s 10.
2 shs Savage at 910 per foot, s 3.
6 shs Hale & Norcross at 980@950 per ft.
2 shs Hale & Norcross at 980 per sh, b 6.
4 shs Gould & Curry at 1060 per foot.
40 shs Crown Point at 925 per foot.
21 shs Yellow Jacket at 430@400 per ft, s 30.
8 shs Yellow Jacket at 425@415 per share
7 shs Yellow Jacket at 420 per foot, s 10.
1 sh Belcher at 180 per foot.
1 sh Belcher at 180 per foot, b 5.
24 shs Ophir at 437½ per foot.
16 shs Exchequer at 7@6¾ per share, s 5.
133 shs Exchequer at 6¾@7¼ per foot.

REPORT

ON THE

Mining District of BATOPILAS, in the State of CHIHUAHUA, MEXICO.

[Extracts from a work now in Press in the Mining and Scientific Press Job Printing Office.]

Among the number of celebrated mineral districts, that in former years yielded such fabulous wealth in silver and other precious metals,

BATOPILAS

ranked as one of the principal ones. *The history* of this place can with certainty be traced back about 200 years, although its greatest *splendor* appears to have been in the middle of the last century, when a number of its mines made it the envy of all Mexico.

A Mexican writer of note, *Don J. A. de Escudero*, in his very interesting "NOTICIAS ESTADISTICAS DEL ESTADO DE CHIHUAHUA," says that Batopilas paid the greater part of the sum of 922,000 marks of silver ($7,376,000) into the King's treasury at Chihuahua, passed by that office from the years 1785 to 1789, the only other mineral contribution being that of Parral,—this sum being the *Derecho del Rey* (King's dues) of 20 p ct. levied on the amount taken out of the mines, which must have yielded, in those five years, $36,880,000, besides what may have been secreted and stolen by the workmen and others.

It is, indeed, greatly to be regretedt that the conflagration of 1827 laid a large portion of the Capital of the State (the City of Chihuahua) in ashes, destroying the archives relating to the District of Batopilas. That misfortune has deprived us of the authentic facts, referring to the yield of each mine by itself. Very few old documeuts, however, yet remain scattered over the country in private hands.

More or less silver continued to flow from Batopilas until 1810 to 1812, epoch of the Mexican Declaration of Independence, when the district commenced to feel the consequences, until 1821, when the war had placed the country in a chaos of misery, and the Spaniards were expelled from it. This, at one blow, stopped all the works, and put an end to the long period of prosperity, gradually reducing Batopilas to a state of perfect staguation.

The huts and "*adobe*" houses fell in for want of care, aud lay in ruins, dilapidated and roofless; the few now remaining are scarcely in a better condition.

A few years afterwards, the celebrated district of "*Refugio*," in the same State, was discovered; a rush of the, as yet, remaining able workmen of Batopilas took place, and the district fell into the greatest misery. The extreme richness of the rubbish piles, the facilities of gaining a subsistence by picking them over, aud the hope of sometimes meeting with somethiug better worth their time, induced a scanty proportion of the former numerous population to remain. It is reported, that at one time it amounted to some 5,000; whereas, at present, it may not be over 600 souls.

It was only occasionally that any important discovery was made by these poor people, who hardly had a fit instrument to work with. Such induced then, momentorily, a revival, calling back from other places a share of former deserters, who did not know how to take advantage of their good luck, for the reason that as soon as acquired, was again expended; people essentially migratory, who would collect at first report of a "honanza," dispersing soon after, leaviug no trace of enterprise.

Besides a very few tolerably good houses, the small church, the remains of several reduction works, ("*Haciendas de beneficio*,") once moved by water, and a numher of others by horse or mule power, were, or rather are, the only remaining vestiges of its former opulence.

We must, however, take into consideration the general character of the inhabitants composing the population; the very limited communication that it had, for the reason of its isolated position, with the more civilized parts of the country, and the very few attractions it presents to persons to undertake costly huildings.

THE MOUNTAINS,

that shut Batopilas in on all sides, and fall off in a very steep declination, generally reach a hight of from 1500 to 2500 feet ahove the river flowing through the gorge, overtopped by the eliff-crowned peaks of the "Sierra Madre," and furrowed and divided hy deep ravines and rocky spurs; their surfaee heing eovered by a thiek vegetation of high thorny shruhs and gigantie eactus, whieh make it extremely unpleasant to leave the heaten traeks.

With regard to the

MINERAL VEINS,

Batopilas eompares favorahly with the richest mining districts; as at least one hundred, of more or less note, are known to exist iu a very limited eireuit—a majority of which seem to eoneentrate in one of the hills called the

"CERRO DE ANIMAS,"

to the north of the town, whieh really seems to he furrowed hy veins, as well as the hills "San Antonio" and "Descuhridora."

AS AUTHORITY,

to refer to, in regard to the richness of some of the mines of the district, there are only two sources left to us at present: say—a very limited numher of still existing official documents, and the traditious and experience of the old working men, whose number is, however, fast dying out.

The latter, if not entirely to he relied on, place in our discriminating hands a very serviceable thread, and are very often the only means of getting any information at all. The former prove to us, that in reality such vast amounts of silver were extracted that seem fabulous and incredible, yet leave no douht on this point.

Not all the various mines, however, gave their owners the riches of Crœsus: many turned out unremunerative; the number of those that gave great "honanzas" was comparatively limited. Again, we have here to consider, that the Spaniards of those days worked almost exclusively those lodes where they could see the silver cropping out on the very surface, leaving others, where such was not the case, unnoticed, or at least never went to any expense to prospect them. Principally among the former

"BONANZA MINES,"

rank "Pastrana," "Nevada," "Arhitrios," "Cata," "Dolores," "Vallinas," "Roncesvalles," "Carmen," "San Antonio," Descubridora," "Martinez," "San Pedro," and some others.

Besides these, there are a number more pointed out which are likewise known to have given their riches—some of them even at a recent day—to a greater or lesser degree, as for instance, "Camuchin," "San Antonio de los Tachos," "Candelaria," "Animas," "Baltazar," "San Nestor," "Trinidad," "Tajos," "Valencia," "Fierro," "Santo Domingo," "El Santo Nino," "Guadalupe," "Rosario." All these mines lay now more or less abandoned; their supporting pillars having been taken out for the sake of their rich metal, caused them to *cave in* entirely, or partly hlocking them up by ruhhish and rain, which for a great leugth of time entered freely through their unprotected openings.

As the reason of their ahandonment, it is not always to be supposed that it was their metal giving out. Auy such conclusion would be abnormal, and agaiust all practical experience and scientific obscrvations. The frequent discoveries of rich silver in them, within the last few years, show to the contrary, Their wealth most likely continues at some further depth beneath their present bottom. They have never been worked to any considerahle distance helow the surface; the greatest depth reported being that of the "Carmen" and "Pastrana," hoth of which are said to have obtained ahout 150 varas (440 feet English).

The Spaniards have a proverh in regard to this—"that all mines have three distinct and different periods of 'bonanzas';" meaning therehy that the giving out for a time of one need not discourage the miner, for, by going deeper, he will he sure to find the other.

And, in fact, the common reasoning, "that the old mines have been ahandoned on account of their heing worked out," is *entirely without foundation*; and only admissible where it actually has been proved; or to he concluded from exterior reasons. It is therefore much more likely, that new works, going below the old ones, *must strike again the precious metal somewhere.*

In some instances it may not he advisahle to work old miues anew; but this has always to he regulated hy local circumstances connected with the particular one.

Nature indeed seems to have favored the District of Batopilas with a most lavish and particular outfit of silver metal, in a virgin or almost pure state, which sometimes meets the eye with a color white as snow, yellow as gold, black as iron, or green as grass. Its ores are found in various comhinations, one of which forms the interesting *ruby silver ore*, whieh frequently presents itself in regular cut crystals of a hrilliant lustre and purple color. All the different classes turn out the most heautiful specimens, which serve to adorn cabinets, and are frequently purchased for more than their intrinsic value.

NATIVE SILVER

is generally classified as:

1st. MASSIVE.—"*Plata macira*," which may he hammered out or eut hy ehisels, but will not break.

2d. WIRE.—"*Plata Alambrada*," of more or less thiekness, which separate themselves by pounding; when very fine and near together it is called "*plata broza*," which yields one-half, and even two-thirds of the weight of the stone in silver.

3d. NAILS.—"*Plata de clavos*," silver in the shape of nails, more or less thiek.

4th. LEAVES.—"*Plata de hoja*," silver in the shape of leaves or sheets.

5th. LUMPS.—"*Bolas de plata*," showing little on the outside, rich inside.

6th. SULPHURETS.—"*Metal de Azogue*," showing small specks of silver, mostly sulphurets.

THE BENEFICIATING

of the foregoiug kinds of ores and metals is done, according to classes,

either by means of regular smelting works (*Hornos y Vasos de afinacion*), or by the application of quicksilver in the open "Patio" process (*Amalgamacion*), which latter is the most resorted to at present.

The yield ranges as follows:

First class metal will give from $2,000 to $4,000 per ton of 2,000 lbs, and as high as $32,000, which is the intrinsic value of pure silver.

Second " " from $800 to $2,000.
Third " Ore " $150 to $800.
Fourth " " " $60 to $100

per ton, varying according to care in assorting.

Although for a considerable portion of the ores a roasting process, before bringing them to the "Arrastra" (Mill), would be advisable, yet it has, however, not been followed out. Instead of which, the metalic residue or "tailings" (*polvillos*) is preserved until a sufficient quantity is collected to make it worth while to treat it in the smelting furnaces, where, by volatilization, a small part will be lost. These tailings, consisting of various pyrites (arsenical, antimonial, etc.) and sulphurets, will not amalgamate with the quicksilver in the "patio," but will also give from $400 to $800 to the ton.

THE MINERAL VEINS

of this District are characterized by all those attributes appertaining to such. They show distinctly their strike (*rumbo*), their dip (*hechado*) or inclination, and lay encased between the upper and lower selvages ("*respaldo alto y bajo*"). Their structure is very formal.

THE MATRIX

of the lodes seem to be of different natures. One class seems to have quartz or flint with copper pyrites; the other, "calspar." The latter ones appear to be by far the richest, and to have mainly produced those immense masses of native silver which made Batopilas so justly celebrated.

As a general rule, the metal in them does not commence before the depth of from 20 to 40 yards, when certain signs and well understood indications inform the persevering miner of the presence, either below or ahead, of a silver deposit. Principally among these

INDICATIONS ("PINTAS")

are the appearance of lead or iron pyrites, small crystals or specks of a yellowish blende (*copalillo*), and black or red sulphurets (*cardenillo*). Galena, as a general thing, is not found running on to any distance, but mostly on and near the surface, and of a poor *ley* (contents of silver).

The metal or ores are found to continue less, in large masses, in a longitudinal direction in the lode, but invariably increase when going perpendicularly. The veins may even run for a considerable distance, both ways, entirely barren, without even showing any of the usual armament, such as "calspar" or "borrasca;" yet the parts in ore are extremely rich, so that a single strike frequently turns out a large fortune. On the whole, the barren parts of the lodes seldom run more than forty varas in length; so that after cutting through this distance, the ore or metal is generally again found of more or less richness.

We know of two mines, "San Antonio" and "Pastrana," the first of which was worked at the begining of the present century, during *fourteen years*, and the latter during *eighteen*, both in a continual stream of silver, withofit interruption.

A very interesting, as well as favorable point, occurs in Batopilas, by the frequent occurence of smaller threads (*Hilos*), either crossing the main vein, or uniting themselves with it; containing, likewise, the precious metal, sometimes in really such astonishing quantities that it will pay well to work them; although they may commence with the thickness of a knife-blade, on a sudden they will widen out.

THE ROCK

of which the Batopilas mountains are composed, is principally "Diorite," extremely complicated with Granite or Syanite (compact feldspar with hornblend), with trausitions to dioritic porphyry, or *affanite*. It partly presents itself with a fine grain without hornblend, and at other times dividing into masses of different forms, like conglomerate, due probably to its elevation. Micarious porphyry forms sometimes the upper or lower wall of the granite, and unites, often, so intimately with it, that it is with extreme difficulty the respective ages of the rocks can be decided. Granite is chiefly found on the northern side of the "Animas" mountain, and as high up as the "Arbitrios" and "Roncesvalles" mines, of a gray or light reddish color, with a fine grain and little quartz and black mica, with some crystals and feldspar, or of a coarser grain with dark gray color, but neither sort being stratified.

This latter (stratified) rock is only found in a few localities, such as a part of the south side of the "Cerro de Animas," where the "Santa Teresa" mine lays; also in the "Cata" and "Pastrana" mines. On the north side of the same mountain, a small stretch on the spur, the "Baltazar" mine is found, and some other places on the San Antonio and Nevada Hills.

THE NUMBER OF MINES

which in former times were worked in the mineral district of Batopilas to a more or less degree, can certainly not fall short of a hundred; while those actually in operation will hardly come up to a dozen or two.

Those most favorably looked upon by the mining population, are at the present day, almost without exception, held by individuals as property by way and right of denouncement.

THE RIVER,

which flows through the valley, contains, all the year round, a good body of water, which moves the *Hacienda* of Mr. John Robinson, of sufficient capacity to do all the custom work for those mines at present developed and in operation; the water being enough to propel those *Haciendas* that may in future be erected.

THE CLIMATE

of Batopilas, during the winter months pleasant and warm, is, however, hot in the summer. Few cases of sickness are known—principally of the "Calentura" (fever); the poor ignorant people seldom have the means on hand to cure themselves, or are too indolent to use the remedies recommended to them.

THE HILLS

are mainly covered with a thick growth of thorny bushes, among which the "Torote," the "Mansto," the "Varaprieta," which might serve for medicinal purposes. Of higher growing trees there are but few, and these only in the valley along the river course; the "Guamachil," the "Mezquite," and once in a while a "Tepehuaje" in the humid parts of the ravines. Oaks, in various species, and pines, cover the more elevated parts and tops of the mountains, furnishing the timber required for building purposes and for ladders in the mines, while the most luxurious grasses everywhere cover the higher ridges.

THE COMMUNICATION

of Batopilas with the outer world is still very limited—due to its position in the mountains, and its insignificant traffic as yet not requiring any closer connection. Every month now of its reviving progress makes a regular and efficient one more and more imperious.

Whatever the present population requires for its consumption of the necessaries of life, is from time to time brought down from the mountains. The entire carrying trade is done on mule-back, and principally from and to the town of El Fuerte, distant about five days journey in the saddle, but of eighteen to twenty days for pack animals (*Atajos*). The freight paid to this place averages from $6 to $8 per carga of 300 pounds, or he it $39 to $52 per ton of 2,000 pounds.

The same, or a little more, is paid to and from the town of Alamos, in the State of Sonora, of six days distance.

Communication between Batopilas and San Francisco, California, may he had either via Mazatlan, Navachiste and El Fuerte, or via Guaymas, Santa Barbara and Alamos. The first route meets with the drawback that Mazatlan is not a safe port all the year, and the coasting trade at Navachiste is difficult for the reason of the strong N. W. winds prevailing, detaining the small crafts perhaps months in the accomplishment of their trips; whereas Guaymas, one of the best ports in the world, undisturbed in any kind of weather, affords the greatest safety in landing and shipping. The small coasters going south to Santa Barbara, accomplish their voyages in a day or two without accidents. The distance from the latter place to Alamos is about twenty-six leagues of a perfectly level wagon road. I may also mention, that in case of disturbances at Alamos, the route of Navachiste, from Guaymas, could he taken. The object of these lines is to inform the reader that there is no difficulty of communication, and that the Guaymas route is preferable to that of Mazatlan.

THE PRINCIPAL ARTICLES

of consume at Batopilas are either acquired from the villages of Chois, Baymena, or the small Indian towns and ranchos scattered in the valleys of the Sierra, and over the mountain sides, inhabited by the very numerous half civilized tribe of "Tarumaris."

The average prices at which such artieles of daily consumption are sold, by the quantity, are as follows:

Corn, per fanega	$6 00	to	$8 00
Beans, " " (frjiol)	8 00	to	10 00
Brown Sugar (panocha), per carga of 600 pieces	24 00	tu	28 00
Chile colorado, per almud			75
Beef, fresh, per pound			12½
do dried " "			25
Charcoal, per carga of 4 arrahas	1 00	to	1 25
Firewood, " "			37½
Salt, per fanega	7 00	to	8 00
Lard, per arraha of 25 pounds	6 00	to	9 00
Flour, per carga of 300 lbs	25 00	to	30 00
Tallow, per arraba of 25 lbs	5 00	to	7 00
Soap, per carga of 300 lbs	26 00	to	30 00
Tobacco, per arraha of 25 lbs	10 00	to	12 00
Oxhides, green, per piece	1 00	to	1 25
" tanned	5 00	to	7 00

The wood used for mining and building purposes sells likewise very high, as it has to he brought down during the rainy season from the mountain tops, with considerable trouble.

50 shs Exchequer at 7 per share, s 3.
10 shs Imperial at 120 per share, b 30.
50 shs Imperial at 118@118¼ per share, s 30.
45 shs Imperial at 120 per share.
33 shs Confidence at 49@51 per share.
11 shs Bullion at 66@62 per share.
10 shs Bullion at 65 per share, s 3.
10 shs Bullion at 66 per share, b 30
50 shs Wide West at 9¼ per share.
48 shs Lady Bryan at 1@3 87½ per share.
$36,750 Legal Tender Notes at 73¾c.

AFTERNOON SESSION.

6 shs Savage at 900@890 per foot.
2 shs Savage at 880 per foot, s 5.
1 sh Savage at 900 per foot, s 3.
36 shs Ophir at 440 per share.
24 shs Ophir at 445 per foot, b 10.
4 shs Alpha, G. H., at 260 per foot, s 30.
4 shs Alpha, G. H., at 270 per foot.
4 shs Gould & Curry at 1030 per foot, b 30.
2 shs Hale & Noreross at 970 per foot, s 15
6 shs Hale & Noreross at 1000 per ft, b 30.
2 shs Hale & Noreross at 975 per foot, s 15.
10 shs Chollar-Potosi at 317½ per foot.
15 shs Chollar-Potosi at 320@322½ per foot.
3 shs Belcher at 170 per foot, s 30.
1 shs Yellow Jacket at 390 per foot, s 30.
5 shs Yellow Jacket at 400@395 per ft.
6 shs Yellow Jacket at 390@395 per ft, s 3.
8 shs Yellow Jacket at 390 per foot, s 10.
2 shs Yellow Jacket at 390 per foot.
2 shs Yellow Jacket at 395 per toot, s 15.
1 sh Yellow Jacket at 400 per foot, b 30.
2 shs Imperial at 120 per share.
10 shs Imperial at 119@120 per sharo, s 30.
15 shs Imperial at 120 per share, s 3.
15 shs Imperial at 121@120½ per sharo.
10 shs Confidence at 56@60 per sharo.
12 shs Confidence at 62@61 per sharo,
10 shs Confidence at 63 per sharo.
5 shs Overman at 48 per foot.
2 shs Overman at 49 per foot.
50 shs Exchequer at 7 per share, s 3.
10 shs Sierra Nevada at at 8 per share, a 3.
5 shs Bullion at 63 per share.
15 shs Bullion at 64 per sharo.
Amount of sales.....$191,998 50

Wednesday, February 21.

16 shs Savage at 880@820 per foot.
1 sh Savage at 880 per foot, s 3.
8 shs Savage at 875@850 per foot, b 30.
2 shs Savage at 850 per foot, s 30.
4 shs Savage at 830@835 per foot, s 10.
25 shs Chollar-Potosi at 310@276 per foot.
2 shs Chollar-Potosi at 317½ per foot, b 30.
8 sh s Hale & Norcross at 1000 per foot, b 30.
4 shs Chollar-Potosi at 980 per foot, s 30.
2 shs Hale & Noreross at 1000 per ft, b 5.
2 shs Hale & Noreross at 990 per foot.
4 shs Hale & Norcross at 1000 per ft, b 10.
2 shs Hale & Norcross at 990 per foot, s 10.
36 shs Ophir at 430@437 per foot.
12 shs Ophir at 435 per foot, s 3.
16 shs Alpha, G. H., at 260@255 per foot.
12 shs Crown Point at 950 per foot, s 3.
2 shs Belcher at 176 per foot.
½ sh Belcher at 200 per foot.
8 shs Yellow Jacket at 360@365 per ft.
2 shs Yellow Jacket at 365 per foot, s 10.
8 shs Yellow Jacket at 360@365 per ft, s 30.
4 shs Yellow Jacket at 365 per foot, s 20.
2 shs Yellow Jacket at 380 per foot, s 3.
6 shs Empire M & M Co. at 175 per sh.
3 shs Empire M. & M. Co. at 175 per sh, s 3
1 sh Empire M & M Co. at 175 per sh, s 10.
25 shs Wide West at 11 per share.
120 shs Lady Bryan at 2½ per share.
30 shs Lady Bryan at 3 per share, b 3.
8 shs Overman at 52@50 per share.
10 shs Overman at 52 per share, s 3.
33 shs Imperial at 120 per share, s 3.
5 shs Imperial at 119 per share, s 30.
26 shs Confidence at 56@52 per sharo.
9 shs Bullion at 62 per share.
15 shs Bullion, at 60 per share, s 3.
12 shs Exchequer at 7 per share.
1 sh Cal Steam Nav Co at 59 per cent.
$ 5,000 Legal Tender Notes at 73½ per cent.

AFTERNOON SESSION.

21 shs Savage at 800 per foot.
20 shs Savage at 760@775 per foot.
1 sh Savage at 795 per foot, s 5.
22 shs Savage at 790 per foot.
1 sh Savage at 780 per foot, s 10.
6 shs Savage at 770 per foot, s 30.
3 shs Savage at 810 per foot, b 30.
1 sh Savage at 795 per foot.
1 sh Savage at 790 per foot, s 30.
16 shs Crown Point at 275 per foot.
13 shs Chollar-Potosi at 310@305 per foot.
13 shs Chollar-Potosi at 308@307 per foot.
5 shs Chollar Potosi at 307 per foot, s 3.
5 shs Chollar-Potosi at 305 per foot, s 30.
10 shs Chollar-Potosi at 310 per foot, b 5.
3 shs Belcher at 185 per foot, b 30.
3 shs Belcher at 185@187½ per foot.
1 sh Belcher at 190 per foot, b 10.
1 shs Ophir at 430 per foot.
2 shs Yellow Jacket at 375@385 per ft, b 10.
2 shs Yellow Jacket at 360 per foot, s 30.
1 sh Yellow Jacket at 375 per foot.
4 shs Alpha, G. H., at 230 per foot, s 3.
20 shs Empire M & M Co. at 175 per sh, s 10.
14 shs Overman at 49@53 per foot.
10 shs Overman at 51@52½ per share.
25 shs Overman at 55 per foot.
37 shs Confidence at 60 per share.
10 shs Bullion at 68 per share, s 4.
15 shs Bullion at 59 per share.
25 shs Imperial at 120 per share.
5 shs Imperial at 120 per share, s 5.
10 shs Imperial at 118 per share, s 30.
12 shs Sierra Nevada at 8 per share.
80 shs Lady Bryan at 3 per share.
25 shs Lady Bryan at 3½ per share.
5 shs Exchequer at 6½ per share.
4 shs Cal Steam Nav Co at 56@56½ per ct.
Amount of sales.....$172,324 25

Friday, February 23.

8 shs Savage at 790@800 per foot, b 3.
10 shs Savage at 810@810 per foot.
2 shs Savage at 820 per foot, b 30.
6 shs Yellow Jacket at 380@400 per ft.
2 shs Yellow Jacket at 375 per foot, s 30.
18 shs Chollar-Potosi at 306@315 per foot.
3 shs Chollar-Potosi at 330 per foot, b 30.
10 shs Hale & Noreross at 990@1000 per ft.
2 shs Hale & Noreross at 1010 per foot.
67 shs Imperial at 120 per share.
20 shs Imperial at 121 per share, b 3.
30 shs Imperial at 121 per share, b 10.
70 shs Imperial at 120½ per share.
36 shs Ophir at 425 per foot.
12 shs Alpha, G. H., at 230@240 per foot.
28 shs Gould & Curry at 1000 per foot.
20 shs Gould & Curry at 1030@1020, b 30.
39 shs Belcher at 185 per foot.
6 shs Belcher at 190 per foot, b 30.
30 shs Empire M & M Co. at 175 per sh, s 10.
170 shs Exchequer at 7¼ per share, b 30.
64 shs Confidence at 57@59 per share.
50 shs Overman at 51@54 per foot.
11 shs Cal Steam Nav Co at 55@55¼.

AFTERNOON SESSION.

80 shs Chollar-Potosi at 315@322½ per foot.
14 shs Chollar-Potosi at 323@324 per ft.
15 shs Yellow Jacket at 400@390 per foot.
10 shs Savage at 840@840 per foot.
2 shs Savage at 825 per foot, s 30.
60 shs Ophir at 425@420 per foot.
31 shs Confidence at 65@75 per share.
50 shs Overman at 55@53 per foot.
21 shs Belcher at 200@190 per foot.
4 shs Alpha at 245 per share.
15 shs Imperial at 119@120 per share, s 30.
10 shs Cal Steam Nav Co at 55 per cent.
$ 5,000 Legal Tender Notes at 73¼c.
Amount of sales.....$160,190 00

Mining Summary.

CALIFORNIA.

TRINITY COUNTY.—The Trinity *Journal* says the most cheering reports come from all sections of the county. Junction City is speaking loudest just at present. Parties who have lately visited Moore & Co.'s claim, just below Stordivant's, say that they are working dirt which throws the surface diggings of early days entirely in the shade, and that with the present water prospect they must take out a bushel of gold this year. We hope so. Field's new claim, opposite Junction City, is yielding regularly from $12 to $20 a day each for four workmen.

SHASTA.—According to the *Courier*, the amount of shipments from Shasta of bars of gold dust, through Wells, Fargo & Co., during the month of January last, sums up the fair aggregate of $79,070.92. January is a comparatively dull month for shipments. The present month nearly equals it now. These figures do not indicate any great falling-off in those mines.

During the year ending 31st December last, the Highland company at French Gulch took out $67,249.13, and the Washington company $20,112.59. Both claims promise increased yields the present year. This company handed in to Lewin & Co., on the 26th ult., the result of a ten-days' run. Amount after assay, $2,530.87, or $253 per day. This company is making dividends every month.

Horsetown is doing pretty well for a place where the placers are said to be exhausted. A few days since, Weil & Co., at that place, in one day purchased of the miners there ninety-six ounces. That was the amount for that day alone, not including the business in that line during the week.

The new mill on the Potosi lode will be in operation in the course of another week There are other lodes at or near Muletown that are being prospected, and it is believed, from the evidence already had, that the Potosi is not the only rich lode in that immediate vicinity.

The Honeycomb company has made no report, but from the best information we can get it is doing well.

The Washington company, after a thirteen days' run, cleaned up on the 26th ult. $2,819—a little over $217 per day. This mine is now thoroughly open, and there will be no delay for want of rock to feed the mill. On the last clean-up a dividend was made, and hereafter monthly dividends are expected. There are six thousand shares in the company, all owned by five persons. The last dividend amounted to 33⅓ cents per share. The coming monthly dividends will, of course, be larger, as the full force of the mill will run uninterruptedly.

The Bunker Hill placer claim continues to wear the belt. A recent run of two days yielded $306.25. Very good placer diggings, if only located in Idaho or Montana; yet the above is far below the general yield of this claim. Nine days' work, ending on the 6th instant, resulted in $1,119. The two subsequent days realized $837.

The *Independent* says an assay has been had from rock taken out of the Williams & Kellenger tunnel, and supposed to be near the lode for which they are driving, that assays $70 per ton.

TUOLUMNE.—The Sonora *Democrat* says that during the week we learned that gold-bearing quartz of great richness has been found in the neighborhood of Blanket Creek, some eight or ten miles from Sonora. Wm. Sutton, of Jamestown, is the lucky discoverer. Several others have located claims in the same district, and are getting out splendid rock.

From the Big Oak Flat section very encouraging reports are received in regard to quartz mining operations. The claims generally are turning out well on the other side of the river. About Deer Flat and the two Garrotes are several excellent paying mines. The mills and arastras now running are doing very well. This section is much richer in quartz than is generally known.

The Mount Vernon mine, on Friday, February 2d, cleaned up $6,000 as the product of eleven days' work.

NEVADA.—The *Transcript* says that the Union incline is now down about 170 feet below the surface, and the company is drifting upon their ledge in a northerly direction. The ledge is now about eighteen or twenty inches wide, and the rock is of excellent quality. The large Cornish pump worked by a twenty-five horse-power engine, is sufficient to keep the mine free of water. The Union ledge is among the best in this vicinity, and under the excellent system of working adopted by the superintendent, is bound to pay large dividends to the stockholders.

A fine lot of specimen rock was taken from the Mohawk ledge on the 16th instant. The lot was estimated to be worth about $1,500, and was contained in a small candle-box. A hundred tons or more of rock from the ledge is now being crushed at Palmer's mill. From the appearance of the amalgam in the batteries, the yield is likely to far exceed the anticipations of the owners. It is now thought it will come up to a hundred dollars a ton. Kidd & Tisdale are in luck.

Some fifty or sixty tons of rock lately taken from the Wigham ledge has been hauled to Stiles' mill, and is now being crushed.

The *Gazette* reports some fine looking quartz from the Pennsylvania mine, which by working process prospects at the rate of $130 per ton. That portion of the ledge from which this rock was taken is but eight inches in thickness, whereas the average width of the ledge is from eighteen inches to two feet—but what it lacks in quantity on that portion of the mine where they are now at work, is more than made up in the quality of the ore. The company has no trouble now with water, the mine being kept free with the pump running less than half the time.

The Grass Valley *National* has seen two gold bars, molten from gold of the Eureka mine, of which Wm. Watt is part owner and superintendent, each one valued at $8,800. The melting was done by Wm. Watt, and as a sample of turning the metal into bars, it is beautifully done.

The same paper speaks as follows of the placer mines in the upper portion of the county:

During the past year a large amount of money has been taken from the mines in the vicinity of Washington, says the *Transcript*. The cement claims of Woolsey & Co., and Knowlton, Maltman & Potter, have yielded some of the richest specimens ever taken out in the State. The two mills erected upon these claims at Brandy Flat have turned out excellent profits to their owners, and the proceeds will, in all probability, be greatly increased during the next year, as the mines will be thoroughly opened. At Rock Bar, a short distance above Washington, a number of companies are engaged in mining out an old channel of the Yuba river. The range of gravel which pays so well at Washington is supposed to extend from Fall Creek, thence through to Omega and Diamond Creek.

THE Grass Valley *National* of February 10th gives the annexed mining news: "Workmen have been engaged for three years past on the Stockton ledge, one mile west of the Globe Ranch, nine miles below Grass Valley. On Saturday a ledge six inches thick was found, from which two men took out over one thousand dollars in a few hours. Where the gold was found the ledge was within four inches of the surface of the ground."

REPORTED DISCOVERY OF A MAMMOTH QUARTZ LEDGE.—The Nevada (Cal.) *Transcript* says:

We recorded, a week or two ago, the finding of a quartz specimen by a man named Spayth, some ten or twelve miles above Nevada, which yielded $640 in gold. The specimen was found in a ravine just below a mammoth quartz ledge, from which it is supposed to have come. We have since learned some further particulars in regard to the ledge. It crosses Deer Creek at the Cascade Falls, about twelve miles above Nevada, and which is supposed to extend a hundred miles or more in nearly a north and south direction. It extends from Plumas through Sierra, Nevada, Placer and El Dorado counties, cropping out in places, but is generally barren. At Steep Hollow it is thirty or forty feet in width, and for some distance crops out to a hight of fifteen or twenty feet above the surrounding rock. We have frequently seen notices of this ledge in our exchanges, and we believe it is being worked successfully in some places in Plumas county. Locations were made on the ledge in this county as long ago as 1852, but the prospects not being favorable, the locations were abandoned. A number of locations have recently been made near where Spayth found the specimen, and we understand one company purpose running a tunnel to strike the ledge at a considerable depth. There is reason to believe that the ledge contains rich pockets, which, if found, would amply reward prospectors.

AMADOR.—We learn from the *Ledger* that on Friday of last week, twenty additional stamps were put in motion at the Oneida mill, two miles from Jackson, making forty in all. Since the purchase of this mine by the present proprietors, many useful improvements have been made, and they now have one of the best mills in the county. They are also sinking new shafts, which will materially facilitate the getting out of rock. The mill and mine are under the supervision of Mr. Pringle, and from the way he pushes forward the work, proves himself a most competent superintendent.

Wilson, Bailey & Co., in sluicing off their claim near Hornitos last week, on Monday came on to a quartz boulder, weighing three hundred pounds, and containing over one thousand dollars of gold.

TULARE.—Capt. A. B. Paul is pushing forward the work upon his mill in Kearsarge District, vigorously. The Kearsarge company's mill is on the ground, and will be put up as soon as the weather will admit. The unusual severity of the present winter has obstructed operations at Kearsarge to a very great extent. The higher portions of the district are covered with from five to ten feet of snow. The Kearsarge mine is the only one now being worked in the district The coming spring and summer will present quite a busy scene in this neighborhood. A saw-mill will be put in operation in the spring, to supply the wants of the district for lumber.

ALPINE.—The Mullan claim, as work progresses, is yielding large quantities of ruby silver. Several tons are to be hauled to the Pioneer mill for being worked.

G. W. Probasco, Esq., one of the original proprietors of the Flora claim, has recently arrived at Monitor, and commenced operations toward opening the claim. It is his intention to erect a mill as soon as the mine is sufficiently opened to warrant the enterprise.

The Buckeye, No. 1, has been placed in the hands of an Eastern company of capitalists for development. The work of development will be commenced forthwith, and pushed with energy.

The Scandinavian company, whose claim is located at the mouth of Scandinavian Cañon, and we believe the first claim located in Alpine county, are about commencing operations. The company got into financial difficulties some time since, and the incorporation was sold out by some of its creditors. Some fine quartz has been taken from the croppings, and the lode is esteemed highly by its locators.

Some very fine specimens of silver-bearing ore from the Balaclava claim, have been exhibited at Silver Mountain, at the office of Wells, Fargo & Co. The company have just commenced operations, and as the face of the mountain, where they have commenced their tunnel, stands nearly vertical, they will gain depth rapidly.

REESE RIVER.

The amount of bullion shipped from Austin, Reese River, during the month of January, was $49,171. It is said that Mr. Henry A. Gaston, formerly a lawyer at Austin, has sent to the office of the County Recorder a deed for mining property to the amount of $334,000. The sale was made at the East, where Mr. G. now is. He is expected to arrive at Austin shortly.

The *Reveille* is informed by a person just arrived from Yankee Blade, that the Confidence mine has just been pumped free of water, and the work of extracting ore has been resumed under encouraging prospects. The mill was to have commenced crushing last Monday.

A very favorable report has been made upon the character of the Lizzie Adams ledge, by J. W. Varney, superintendent of the Ware mill. The ledge has been traced for the entire length of the claim. An incline has been run of a few feet only in depth, but from which assays as high as $500 to the ton have been taken. It lies in a direct line with the Whitlach Union.

Claghorn District.—This new mining district is about fifty miles south of Austin, between the districts of North and South Twin River. It has been selected by W. D. Chilson, superintendent of the Spanish G. and S. M. company, as a suitable point for the erection of its mill. He claims to have there several superior mines, which he is at present working. The mill is a Gardiner crusher—the first of the pattern ever manufactured—and was warranted by the maker to crush fifty tons of rock daily; and Mr. Chilson estimates its practicable capacity—safely as he thinks—at twenty-five tons. One economical feature claimed for the crusher is, that it will require a motive power of only ten horses. It is said to pulverize the rock very thoroughly, and that the "pulp" will pass through a screen eighty to one hundred fine. Mr. Chilson frequently saw the Gardiner crusher in operation in New York, and he was altogether pleased with its work. In his opinion it will produce a revolution in the mill business, that will result in discarding the present battery of stamps. The mill is now at Egan Cañon, whence it will be brought in immediately to its destination, where it will be put in operation, it is hoped, by mid-summer.

VIRGINIA CITY AND VICINITY.

The mining prospects of this region are looking decidedly better than they have been at any previous time for the past twelve months. In all the mines of the Comstock ledge the prospects of richer developments exist. The Gould & Curry is once more alive. The Hale & Norcross is again jubilant, and the Yellow Jacket is beginning to find out that success consists in activity, labor and energy, more than in the speculations of Boards of Stock Brokers in San Francisco.

The Peavine district is also beginning to attract much attention. When the railroad is extended to that district of the State, it may count on rich freights of copper ore to be sent abroad for smelting.

The Overman are busy with their 600-foot level, and with good hopes of soon finding ore. The Empire and Imperial are moving quietly along, both preparing to sink for deeper levels.

The Gould & Curry made a new and important strike on the 13th instant, in their lower level, in the drift which is being run to connect the Bonner with the old Engine shaft. They are said to have a 5 foot vein, the entire width of which will average $50 per foot. This strike is about on a level with that lately made in the Hale & Norcross, and 170 feet north of the north line of the Savage. It appears to grow richer as the miners approach the line of the Savage; a fact of considerable interest and importance to that company.

The Ophir is still producing fine ore in the fourth and sixth levels, and operations, generally, at this mine are progressing most favorably.

The Chollar-Potosi company have lately struck a deposit of good ore in their mine, four hundred feet below the surface. The new strike is far east of the old works. Everything appears to be going east. We shall yet see all the hoisting works located beyond the eastern limits of the settled portions of the city.

Mines in Churchill County.—The *Appeal* has a letter from Churchill county. The Silver Wave Mill at La Plata is completed, and commenced work. It is a wet crushing mill of ten stamps, with capacity for ten more, and cost $100,000. It is said that there is no doubt but that there is plenty of ore to keep the mill running. There are eighteen men at work in the different shafts of the mines. The new town of Averill, a few miles north of La Plata, is improving. A mill is building there which is expected to be ready for crushing by the first of March. New York companies are investing some in Churchill county.

Just and True Economy

The Proprietors of the MINING AND SCIENTIFIC PRESS would call the especial attention of MINING SECRETARIES, TRUSTEE and SHAREHOLDES, to a few substantial reasons for the publication of Mining Notices in their journal—the first and only important newspaper of its class published upon this coast.

1st The PRESS enjoys a large and permanent subscription list, having a more universal circulation among shareholders and men intimately connected with mining interests than any other publication.

2d. Under the present law the publication of all mining notices on Saturday, in a weekly journal, complies as fully with the statutes as a daily publication. It is generally found to be equally as convenient for secretaries, and decidedly preferable to stockholders who have not time to examine throughout every issue of a daily.

3d. Economy in mining should always be looked upon with favor, and the cost for weekly advertising in the PRESS is less by ONE HALF than the rates of any other journal in this city possessing a respectable circulation.

4th. The publishers of the PRESS, making the mining interest their especial care, take particular pains to assist in the avoidance of errors in advertising. Our print is also more clear and perfect than can be expected in such papers as are hurriedly issued from cylinder presses.

5th. Our "Shareholders' Directory" forms a complete index of all mining notices published in San Francisco, by reference to which shareholders can at once see if their company is advertised, and determine whether the same is inserted in the PRESS or some other paper.

6th. Many copies of the PRESS are bound by prominent professional men, mechanics, secretaries, brokers, shareholders and others, as an important record for future reference, thereby rendering advertising, of every class, in its columns, of peculiar and permanent value.

7th. The benefit of having all mining notices consolidated in one newspaper, for the common convenience of shareholders, secretaries, and others who have occasion to refer to the same, is obvious. With this view we have established our rates at only fair, living prices, believing that a journal like ours, untrammeled by party, creed, or prejudice, is the only medium which can reasonably ask for such a consolidation of mining patronage.

8th. Advertisements in the columns of the PRESS, after their first insertion, are arranged alphabetically. Our present list is equalled only in one instance by that of any other journal. Shareholders, as well as strangers, naturally turn their attention to a mining journal for information concerns ing the mines and mining matters.

LAST, BUT NOT LEAST.—Our sheet (having been recently enlarged to the size of Harpers' Weekly) is now only equalled in its dimensions by one mining paper in existence—the *London Mining Journal*. Published in this, the greatest mining field of the world, we desire that the PRESS shall have no superior. We can only realize our cherished object of building up a reliable advocate of the science and business of mining, which will be of just honor and profit to our community, by experience and liberal patronage. The bestowal of such favors only as naturally belong to us, and which it is clearly for the benefit of the mining fraternity to extend, is all that is requisite, and we are confident we shall receive it

DEWEY & CO.,
Office Mining and Scientific Press.

4v11

ITS correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco. [Nye County News.

MONEY BY MAIL.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid.

Mechanical.

THE RAZOR QUESTION.

Quite a discussion has been going on of late through the columns of the *Scientific American* with regard to the effect of heat in facilitating the cutting qualities of a razor. One considers that inasmuch as the microscope shows that the edge of a razor is notched, like a saw, the expansion of the steel by heat must have some unaccountable effect on those teeth; another accounts for the phenomena on the same principle that a hot knife cuts a cake of butter, or whittles a piece of horn easier than a cold one—that is, that the hot steel, in coming in contact with the beard softens it, and thereby allows the hot blade to cut it easier than the cold one. Various other theories have been proposed; but all quite unsatisfactory, and such as do not appear to answer the test of reason. The editor of the *Scientific American* finally comes to the conclusion that there is no difference in the cutting qualities of the hot and cold razor. He has tried the experiment carefully, shaving one side of his face with a cold blade, and the other with a hot one, and discredits the assumption altogether.

Now this razor question was thoroughly discussed and most philosophically settled nearly forty years ago in a number of the Franklin *Journal*, now before us, and published in Philadelphia in May, 1827. With respect to the editor aforesaid, who doubts the correctness of the opinion, that warmth facilitates the cutting of a razor, we think he can neither have a tender chin, nor a stiff beard; otherwise these doubts would have been fully removed with the removal of his beard.

Let any one shave with a cold razor and examine it carefully before wiping, and he will find a wall of wax-like matter along the edge, which limits its free action to a mere line, similar to the edge of a double-ironed plane; this wall of course prevents the free action of the razor. The same thing is observed by the mower, who is compelled to frequently wipe his scythe with a wisp of grass, and often to use a knife to remove the gummy substance which gathers upon the cold blade, near its edge, seriously interfering with its cutting qualities.

When a hot razor is used in shaving this wax-like wall will not accumulate — the matter forming it is removed as fast as it is deposited upon the hot steel. *The keeping of the edge of the razor clean*, is the cause of the difference in the cutting of the same blade, between its cold and hot condition. A cold blade cannot be kept clean by dipping it in cold water except with great trouble and frequent careful wipings. If it could, it would cut as well as a hot one. So much for the razor question.

EXPANSION DRILL.—Dr. P. Snell, says the Tuolumne *Courier*, has been for several days at work on a new kind of drill, the invention of a gentleman of Tuttletown, in this county, but whose name we have been unable to ascertain. It is intended to be used after the hole has been first bored with a common blasting drill, to enlarge the bottom and make a chamber. A steel rod flattened at the end, is the main shaft of the drill, on each side of this are cutters moving horizontally, these are thrown into each of the flattened sides of the main shaft. A pin with a rounded knob, similar in shape to a bell clapper, runs up a hole in the flattened end of the main shaft. This knob is slightly moveable. On striking the drill this knob is forced upwards expanding the cutters; and on removing the force, or cessation of the blows, the pin falls down to its original place, and the springs act as before described, so that the instrument can be easily taken out of the hole. By continuing this modus operandi, the chamber is created one, two, or three times larger than the original hole.

The principle of this drill appears to be almost identical with the "Linscott Chamber Drill" already fully described in this paper. The Linscott drill has no springs, gravity alone being relied upon to draw the horizontal cutters into the shaft of the drill.

STRIKE.—The workmen of the rolling mills and nail factories at Pittsburg, Wheeling and Maboney Valley, Virginia, struck for higher wages on the 3d of February. The mills are all stopped in consequence.

ON THE PREVENTION OF THE OXIDATION OF METALS.—Those familiar with the electrical science are well acquainted with the fact that zinc exercises positive relations with regard to most other metals. In other words, it possesses the power of keeping them in the negative state when in contact with them. In this negative state they are incapable of entering into combination with oxygen, and this circumstance may be applied with much advantage to the prevention of the oxidation of machinery, especially such parts of it as, in the case of marine engines, are liable to come in contact with water. Many instances will at once suggest themselves, in which such manual labor might be saved by the simple contrivance of appending a ring or a slip of zinc to the metal to be preserved bright. It would be especially applicable in the case of bayonets and rifle barrels; and a zinc edging to a scabbard would prevent rusting of the sword.—*Things not generally Known.*

A MODIFICATION OF THE LENOIR GAS ENGINE. A very valuable improvement in the Lenoir gas engine has been effected by M. Hugon, of Paris. Hitherto the explosion of the mixture of coal gas and air employed in these engines has been effected by means of a volatic spark, but M. Hugon effects it by a contrivance which is at once somewhat cheaper and much more regular in its working. To the slide or other valves regulating the admission of gas and air into the cylinder he attaches little burners, supplied with gas under pressure, and he so arranges that the flame from these burners shall explode the mixture in the cylinder at the proper time. These little jets are blown out by the explosion, but are afterwards relighted by an outer jet, which is kept constantly burning. This simple improvement seems likely to considerably diminish the uncertainty and irregularity which have hitherto characterized the action of the gas engine.

VALUABLE TIMBER.—The Nevada *Gazette* is informed by Thomas Hannah, that within a mile or two of Summit City there is a grove of yew trees, extending over a hundred acres or more of ground, the timber of which is said to be of an excellent quality for ship building. Some time since, some small specimens of the wood were sent to the master workman at the Mare Island Navy Yard, who stated that it was superior for ship building to any timber ever before found in California. Since then a board some eighteen or twenty inches wide and five feet in length has been sawed out of one of the trees, and sent to Mare Island, as a specimen of the size and character of the timber. The grove has been located, and is now owned by a joint stock company. Parties who have examined it carefully, say it is the only wood of the kind yet found in California.

NEW MOTIVE POWER.—At a recent session of the Paris Academy of Sciences, M. M. Burdin and Burgot laid before the members a description of the continuation of their experiments for obtaining the greatest amount of work from the hot-air machine, so constructed as to be adapted to a furnace resembling that of an ordinary steam engine. These gentlemen express a hope that the result of their thirty years' labor may be eventually the introduction of a new motive power superior to steam, and thus capable of increasing the wealth and power of civilized nations.

THE STRENGTH OF ICE.—The ordnance department of the Government has laid down the following rule, with regard to the strength of ice: Ice two inches thick will bear infantry; four inches, cavalry with light guns; six inches, heavy field guns; and eight inches, the heaviest siege guns, with 1,000 pounds weight to a square foot.

THE New York *Tribune* has ordered printing paper from Belgium, where it can be purchased for seven cents per pound in gold. It can be laid down in New York for less than fifteen cents, while the present price there is twenty cents.

MINERS' LEAGUE.—A miners' league has been formed in Union district, Reese River, having for its object (so reported) the prevention of the employment of Cornish miners to the seclusion of others.

HIGH RATES.—In Minnesota a carpenter gets at the rate of three bushels of wheat or fifteen bushels of potatoes for a day's work, and a laboring man gets a per diem that will purchase two bushels of wheat or ten bushels of potatoes.

GEOLOGY is Time's own biography, printed, paged, collated, and bound by the fingers of Omnipotence.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

OFFICE OF THE MINING AND SCIENTIFIC PRESS—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast can have their applications for patents made out through our Agency and sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the MINING AND SCIENTIFIC PRESS. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. Englishi, French, Austrian, Prussian, Spanish and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against citizens of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $30. If the patent is granted no further agency expenses ensues. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unequaled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimensions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first instalment of the Government fee, fifteen dollars. The money may be sent by express or otherwise with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered in our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his execution, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, send us the ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos...	$10
On every application for a design, for seven years.....	15
On every application for a design, for fourteen years.....	30
On every application for a patent, for seventeen years...	15
On every caveat.....	10
On issuing each original patent.....	20
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On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C....	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

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1866 JANUARY 1st, 1866

Commencement of Twelfth Volume

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W. B. EWER,.....SENIOR EDITOR.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reador must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

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Mr. Wm. R. Brndshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:

Saturday Morning, Feb. 24, 1866.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

THE UNION COPPER MINE—RICH DEVELOPMENTS.

We are permitted to make the following extract from a private letter received in this city a few days since, from a gentleman who has just visited the Union mine, in Copperopolis:

The prospects of the permanency of this mine were never so great as at the present time. I was down in the mine last Friday, when I saw, in the 500-foot level connected with the middle shaft, a vein of concentrated No. 1 ore, twenty-five feet in width, so far as explored (its full width not yet being known). In following that deposit eighty feet upward, to the level above, the width is there found to be twenty-eight feet. This will give you some idea of the future of the Union mine. In the No. 3 shaft they have also found a vein of concentrated ore, at a depth of 400 feet, that keeps widening, as they drift upon it to the southward. It is my honest opinion that they have only commenced finding the real depth of the deposit in the Union mine.

In order to arrive at some definite idea of the actual value of the immense deposit above spoken of, in the middle shaft, let the reader calculate the cubic contents of the mass, which is now known to be of the following dimensions:—Hight, 80 feet; width, 26½ feet; length, 150 feet. This will give us 3,180,000 feet; nine feet to the ton, and $60—the known value of the ore per ton—gives us a cash value of over two *millions of dollars* from this single mass, above the present lower level! According to all human calculations, the half of it is not yet developed. And yet this is only the first class ore which will be taken from the middle shaft only! When we take into account the immense amount of reserved ore in that and the other shafts, and the further developments yet to be made—this must be confessed to be the most remarkable mine in the whole history of copper mining.

RETURNED.—John C. Fall, Esq., a gentleman pretty well known throughout this State and Nevada, has recently returned to Humboldt well equipped for effective work for the development of several mines in that vicinity. The *Register* says that parties East have purchased his mill, and in connection with it several mining claims conveniently situated for working; and have provided him the means to prosecute vigorously the work of opening the said claims, and bringing the bullion to the surface. We wish him and his co-workers the fullest success in their undertakings.

A NEW BILL CONCERNING CORPORATION ASSESSMENTS.

In the State Senate, on Wednesday of last week, the Hon. Henry Robinson, of Alameda, introduced the following Bill, which was referred to the Committee on Corporations and ordered printed:

AN ACT CONCERNING ASSESSMENTS UPON THE STOCK OF CORPORATIONS.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. The Trustees of any corporation, formed under the general laws of this State, shall have power to levy and collect, for the purpose of paying the proper and legal expenses of such corporation, assessments upon the capital stock thereof, in the manner and form, and to the extent hereinafter provided, and not otherwise.

SEC. 2. No one assessment shall exceed five per cent. of the stated amount of the capital stock of the corporation, named in the articles of incorporation, and none shall be levied while any portion of any previous assessment shall remain unpaid, or uncollected, except in cases where all the powers of the corporation shall have been exercised in accordance with the terms of this act, for the purpose of collecting such previous assessment, and except, also, the collection of a previous assessment against one or more stockholders, restrained by injunction or otherwise; in which case, further assessment may be levied and collected according to this act.

SEC. 3. No assessment shall be levied except by order of the Board of Trustees, concurred in by a majority of said Board, and entered upon the records of the corporation.

SEC. 4. Every order levying an assessment shall specify the amount thereof and the time when the person or persons to whom and the place or places where the same is payable. It shall also appoint a day subsequent to the full term of publication of the assessment notice on which the stock upon which assessments remain unpaid shall be deemed delinquent, which said day shall not be less than thirty, nor more than sixty days, from the time of the making of the said order levying the assessment, and a day for the sale of delinquent stock, which shall not be less than fifteen, nor more than sixty days from the time appointed for declaring said stock delinquent.

SEC. 5. Upon the making of such an order, the Secretary shall cause to be published immediately a notice thereof in the following form:

"[Name in full.] [Location of works.] Notice is hereby given that at a meeting of the Trustees of said Company, held on the [date], an assessment of [amount] per share was levied upon the capital stock of said Company, payable [when, to whom, and where, particularly]. Any stock upon which said assessment shall remain unpaid on the [day fixed] shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the [day appointed], to pay the delinquent assessment, together with costs of advertising and expenses of the sale. [Signature of the Secretary, with particular location of office.]"

SEC. 6. Said notice shall be published once each week for four successive weeks in some daily or weekly paper published at the place designated in the articles of corporation as the principal place of business of the corporation, and also in some paper published in the county in which the works of the corporation are situated, if a paper be published therein: *provided*, that if the works of the corporation are not situated within some State or Territory of the United States, then publication in a paper of the County shall not be necessary; *provided, also*, that if there is no newspaper published at the place designated as the principal place of business of the corporation, then the publication shall be made in the newspaper published nearest thereto; and *provided, also*, that the notice specified in the 5th section of this act may be served by delivering a copy thereof, certified by the Secretary, to each stockholder personally, and in case of such service upon all the stockholders of said corporation, then no notice by publication shall be necessary, and such personal notice shall be deemed complete.

SEC. 7. If any portion of the assessment mentioned in said notice shall remain unpaid on the day specified therein for declaring the stock delinquent, the secretary shall, unless otherwise ordered by the Board of Trustees, cause to be published in the same papers in which the notice provided for in Sec. 5 shall have been published, a notice substantially in the following form:

"[Name in full. Location of works.] *Notice.*—There is delinquent upon the following described stock, on account of assessment levied on the [date,] [and assessments levied previous thereto, if any,] the several amounts set opposite the names of the respective shareholders, as follows: [Names, number of certificate, number of shares, amount.] And in accordance with law, [and an order of the Board of Trustees, made on the [date,] if any such order shall have been made,] so many shares of each parcel of said stock as may be necessary, will be sold at the [particular place,] on the [date] at [the hour] of said day, to pay said delinquent assessments thereon, together with costs of advertising and expenses of the sale. [Name of Secretary, with particular location of office.]

SEC. 8. Said last named notice shall state every certificate of stock with the number of shares which it represents, and the amount due thereon, separately, except where certificates may not have been issued to parties entitled thereto, in which case the number of shares and amount due thereon, together with the fact that the certificates for such shares have not been issued shall be stated.

SEC. 9. Said notice, when published in a daily or weekly paper, or in both, shall be published as follows: When published in a daily paper, the same shall be published for a period of ten days, excluding Sundays and holidays, previous to the day of sale. When published in a weekly paper, the same shall be published for two weeks previous to the day of sale. The first publication of all delinquent sales shall be at least fifteen days prior to the day of sale.

SEC. 10. By the publication of the said notices, as hereinbefore provided, the corporation shall acquire jurisdiction to sell and convey a full, complete, perfect, and absolute title to all of the stock described in the notice of sale upon which any portion of the assessment or costs of advertising shall remain unpaid at the hour appointed for the sale, but shall sell no more of such stock than is necessary to pay the assessments due and cost of sale.

SEC. 11. On the day and at the place, and as nearly as may be at the hour appointed in the notice of sale, the Secretary, who is hereby fully empowered and authorized, shall, unless otherwise ordered by the Board of Trustees, sell, or cause to be sold at public auction, to the highest bidder for cash, so many shares of each parcel of said described stock as may be necessary to pay the assessment and charges thereon, according to the terms of said notice of sale; *provided*, that if payment be made before the time fixed for sale, the party paying shall only be required to pay the actual cost of advertising.

SEC. 12. The person offering at such sale to pay the assessment and costs for the smallest number of shares, or fraction of a share, shall be deemed the highest bidder.

SEC. 13. If, at the sale of any stock under the foregoing provisions of this Act, no bidder shall offer to take and purchase the same for the amount of the assessments, and costs and charges then due upon the same, then and in such case the same may be purchased and bid in by the company or corporation, through the Secretary or President, or any Director or Trustee thereof, at a sum equal to the amount of the assessments, costs, and charges due upon the same; and in pursuance and by virtue of such purchase, the said assessments, costs and charges, shall be credited, as satisfied and paid in full, on the books of such corporation, and entry of the transfer of such stock to such corporation, in pursuance of such sale and purchase, shall be made on the books of said corporation. While such stock shall remain the property of such corporation, the same shall not be assessable, nor shall any dividends be declared upon the same; but all assessments and dividends shall be apportioned upon and against the other stock of such company not owned by such corporation. All purchases of its own stock made by any corporation, in accordance with the provisions of this section, shall be held valid, and as vesting the legal title to the same in said corporation, and the stock shall be held subject to the control of the remaining stockholders, who may make such disposition of the same as they may deem fit, in accordance with the by-laws of the corporation, or vote of a majority of the remaining shares. Whenever any portion of the capital stock of any corporation is held by the said corporation by purchase, a majority of the remaining shares of stock in said corporation shall be held to be a majority of the shares of the stock in said incorporated company, for all purposes of election, or voting on any question before a stockholders' meeting.

SEC. 14. The time fixed in any notice of assessments, or notice of delinquent sale, published according to the provisions of this Act, may be once extended for a period of not more than thirty days, by order of the Board of Trustees, duly made and entered on the records of the corporation; but no order extending the time for the performance of any act specified in any notice shall be effectual, unless notice of such extension or postponement be appended to and published with the notice to which the order relates.

SEC. 15. No assessment duly levied shall be rendered invalid by a failure to make proper publication of the notices hereinbefore provided for, nor by the non-performance of any act required to be performed in order to enforce the payment of the same; but in case of any substantial error or omission in the course of proceedings for collection, all previous proceedings, except the levying of the assessment, shall be void and publication shall be begun anew.

SEC. 16. No suit shall be maintained to recover stock sold for delinquent assessments or to invalidate any such sale on the ground of irregularity or in making the assessment, or defects or irregularity in the sale or notice of it, "unless the party seeking to maintain such action shall first pay or tender *to the corporation or party holding such stock so sold*, the sum for which the same was sold, together with all subsequent assessments which may have been paid thereon, and interest from the time they were paid; and no such action shall be sustained unless the same shall be commenced by the filing of a complaint and the issuance of a summons thereon within six months after such sale shall have been made.

SEC. 17. "An Act Concerning Assessments upon Stock of Corporations," approved April 4th, 1864, and all Acts and parts of Acts, inconsistent with the provisions of this Act, are hereby repealed; *provided*, that such repeal shall not affect proceedings commenced for the collection of assessments heretofore levied, but all such assessments may be collected in accordance with the provisions of the laws then in force.

SEC. 18. This Act shall take effect immediately.

EASTERN CAPITAL FOR THE MINES.—We understand that dispatches have been received stating that General Rosecrans is now on his way back to this city, with capital for developing certain mines in which he is interested, in Lower California and elsewhere. The General will also take an active part in the initiatory preparations for starting the work at the western terminus of the Southern Pacific Railroad. It is understood that a large number of prominent capitalists are engaged in this enterprise, and that all the aid required for its construction can be easily obtained. The General, in both these enterprises, represents numerous heavy capitalists and prominent individuals at the East.

We would also state, in this connection, that Capt. Winder, formerly in command at Black Point, near this city, and who arrived here per steamer two weeks since, has gone down the coast to take charge of a mine located at a point in Lower California, about forty miles south of the California State line, and some eight miles from the seacoast. The Captain, during his visit to the East, negotiated a sale of these mines, in which both himself and Gen. Rosecrans are interested, to a Philadelphia company, composed of some of the heaviest capitalists in western Pennsylvania. Capt. Winder goes down to superintend the work at the mines for this company. We are pleased to learn that during his absence at the East, some very rich and important developments were made at the mines, which have greatly increased their value and importance.

CORRESPONDENCE.—We have received, in addition to correspondence already noticed, and not published, the following communications:—"Electricity the Cause of Earthquakes;" "The Mammoth Mining District" of Nye Co., Nevada; A Letter from Aurora by "* * * * *;" A Letter from our Regular Correspondent, dated Amador, Feb. 1; "Blue Lead," from Nevada City, and another letter from "M," of Brown's Valley.

QUEEN EMMA, of the Sandwich Islands, now on a visit to England is said to be suffering in bodily health from the severe tax imposed upon her by the English public in almost compelling her to travel from place to place to satisfy the natural curiosity to see her. Her medical advisers have been compelled to positively forbid her any further appearance in public until she has had time to recuperate.

CHEAP TELEGRAPH.—Since the opposition telegraph line between San Francisco and Virginia has gone into operation, telegraphic rates have been reduced to fifty cents for ten words.

POSTPONEMENTS.—We would again call the attention of Secretaries to a certain point of the mining law, too commonly overlooked, viz: The requirement that all postponements must be added previous to the expiration of the regular publication of assessment or sale notices.

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. THE MINING AND SCIENTIFIC PRESS PATENT AGENCY has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

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Belcher, Gold Hill, Nev			Sale Feb 24
Bacon M. & M. co			Meeting Mar 6
Consolidated Silver Hill M Co., Nev.,	$2		Feb 17—Mar 3*
Comet Petroleum co.,	50c		Feb 24—Mar 8
Cassilli, Nevada co., Cal.,	$5		Feb 20—Mar 8
Cole, Storey co., Nev.,	$1		Mar 15—Mar 31
Chilpiones, Sonora, Mex.,	$5		Mar 14—Mar 26
Capital			Meeting Feb 26
Dancy, Lyon co., Nev.,	50c		Mar 5—Mar 26
Evoca, Del Norte co., Cal.,	25c		Mar 3—Mar 19*
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Elk Horn, Petroleum,	50		Feb 7—Feb 23
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Iowa, Storey co., Nev			Meeting Feb 22
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Leland, Arizona,	5c		Mar 3—Mar 19*
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London Quartz,	50c		Feb 20—March 10
La Fermandez, Sonora, Mex.,	$5		Mar 1—Mar 15
Maggie, Lander co., Nev.,	$5		Feb 14—Mar 3
Morning Star, Alpine co.,	$1		Mar 3—Mar 19
Napoleon, Calaveras co.,	$7		Feb 13—Feb 23
Nonpareil,	$1		Feb 20—Mar 10
Oxford Bela, Esmeralda co., Nev.,	50c		Feb 17—March 3*
Overman, Storey co., Nev.,	$10		Feb 9—Feb 26
Providence, Nevada co., Cal.,	$1		Mar 17—Mar 31*
Planet, Copper			Meeting Feb 22
Refugio, Chihuahua, Mex.,	$2½		Feb 10—Feb 24
Rodgers, Storey co., Nev.,	$3		Feb 27—Mar 12
Southern Light, Lander co., Nev.,	$12.50		Mar 10—Mar 26*
Santiago, Lyon co., Nev.,	$1		Feb 1—Feb 20
Sierra Valley, Plumas co., Cal.,	$1		Mar 5—Mar 17
Seer a Silver, Douglas co., Nev.,	$3		Mar 9—Mar 23
Salambo Copper,	50c		Mar 17—April 5
Sierra Nevada, Storey co., Nev.,	$2		Mar 13—Mar 28
Tuolumne Mountain,	50c		Feb 10—Feb 26
United States, Storey co., Nev.,	50c		Mar 17—Mar 31*
Wallpi, Arizona			Annual Meeting, Mar 21*
Wide West, Alpine co.,	$3		Feb 3—Mar 2*
Yellow Jacket, Storey co., Nev.,	150		Mar 17—April 17

*These marked with an asterisk (*) are advertised in this journal.

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Notices of Meetings, per square, four weeks	2 50
Assessment Notices, of ordinary length, four weeks	5 00
Assessment Notices, of more than usual length, for each additional square	2 50
Delinquent Sales, per square, two weeks	2 00
Delinquent Sales, per square, three weeks	2 50
Postponements, per square, one week	1 00
Slips of Advertisements, printed for meetings or assessments, per hundred	1 00
Advertising blanks and circulars	Free

Miscellaneous Advertisements.

One week, per square	$1 00
One month, per square	2 50
One quarter (3 months), per square	7 50
Advertisements of great length, or of special character, inserted by contract on the most favorable terms.	

☞ *Ten lines of solid advertising type constitutes a square.* ☜

Terms of Subscription.

THE MINING AND SCIENTIFIC PRESS is published every Saturday morning (containing sixteen pages—size of *Harper's Weekly*) at the following rates:

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One copy, six months, by mail, in advance	3 00
One copy, one year, by express	6 50
One copy, six months, by express	3 50
Five copies, one year, by mail, in advance	20 00
By city carriers, per month	50
Single copies	12½
Monthly Series (or parts), containing 4 Nos	50
Monthly Series, containing 5 Nos	62½

THE CIRCULATION of the PRESS, already extensive, is rapidly increasing, and substantial men who can profit by widely disseminating information of their business amongst the most intelligent, influential and industrial classes of the Pacific States and Territories will find no more effectual or economical medium for advertising

DEWEY & CO., Proprietors.

Patent Agency and Job Printing Office, 505 Clay street, San Francisco. July 1 1865

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, February 24th, 1866.

Semi-Annual Reports of the Savings and Loan Institutions of San Francisco.

NAME.	Date of Rpt	Deposits.	Loans.	Earnings.	Reserve Fund.	Cash on Hand.
Hibernia Savings & Loan Society	Jan. 21, 1866	$3,211,943 55	$3,075,716 97	$179,511 99	$81,3 2 60	$327,281 73
Savings and Loan Society	Jan. 1, 1866	1,596,869 73	1,320,231 59	84,3 2 22	41,876 34	224,484 10
San Francisco Savings Union	Dec. 31, 1865	620,093 35	699,374 27	42,235 50	52,706 69	70,002 28
French Savings & Loan Society	Jan. 15, 1866	1,361,155 27	1,428,381 10			
Cal. Building and Loan Society	Nov. 1865	212,000 00	120,000 00		58,000 0	
Totals		$7,003,061 6	$4,751,2?6 85	$306,000 80	$236,9 5 63	$621,768 10

During the recent agitation of the currency question by the Legislature of this State, with a view to a repeal of the Specific Contract Law, a large number of deposits were withdrawn from several of the above institutions, particularly from the Hibernia; but since the final vote in the Senate against the proposed change, confidence has been restored, and the reflux is even greater than before. As is well known, the loans made by these associations are secured by mortgages upon first-class real estate, and repayable in monthly installments. The Hibernia Savings and Loan Society declared, during the past six months, dividends of one ℔ cent. per month; the S. F. Savings Union declared 1 1-5 ℔ cent. per month to term depositors, and 1 ℔ cent. to ordinary. The California Building divided 1½ ℔ cent. per month. Pending the action of the Legislature, it was deemed prudent to carry unusually heavy cash balances, which, of course, decreased the percentage depositors derived from the gross gains; but this is no longer necessary, and loans are now made with more freedom.

The Money Market presents no new feature. A fair degree of activity prevails, and the current rate in bank is 1@1¼ ℔ cent. per month, with occasional transactions upon more favorable terms to the borrower.

Receipts of treasure from domestic sources, since our last reference, have amounted to nine hundred thousand dollars, making an aggregate of some three million dollars thus far during the current month. Bullion has been in good demand for shipping purposes, and sales of gold bars were made at about 850; silver bars range from ¾ to 1 ℔ cent. premium.

Legal Tender Notes are dealt in at the Board to the extent of $60,000 at 73¼@73⅜c., closing at 73¼c. bid. Our latest telegraphic advices from the East quote gold at 137.

The Mining Share Market has been somewhat irregular this week. Some stocks met with a material decline, while others have been well maintained at a slight advance. The tenor of advices from a number of claims is considered favorable.

Gould & Curry receded from $1,050 to $1,000, then sold at $1,030, buyer 30, and closed at $1,050 asked. The body of ore found recently on the "2d station" is said to be improving. The company's mill is now running up to its full capacity, and during the first 16 days of this month, 1,925 tons of ore were reduced at that establishment.

Savage has been actively dealt in, and some 200 feet changed hands, steadily declining from $1,025 to $770, seller 30, and selling yesterday at $800@$840. The drift from the bottom of the prospecting winze on the lower level now discloses a less formidable body of ore than was supposed to exist at that point. Mr. Chas. Bonner has been chosen superintendent in lieu of Mr. Curtis.

Hale & Norcross declined from $980 to $940, advanced to $990, dropped to $960, rallied to $1,010, and sold at the close at $1,050 bid, b. 30. The newly-discovered ore deposit in the 700-feet level is said to look promising, and has been tolerably well developed a distance of nearly 100 feet north and south. The ore strata, with the quartz lying to the west of it, also presents a flattering appearance, and is thought to indicate the existence of an extensive body of ore in the next level below.

Crown Point rose from $900 to $975, and closed yesterday at $1,025 bid. During the week ending February 16th, 590 tons of ore were extracted from this mine. In breasting out the full width of the lode going north, the ore deposit is 30 feet wide in the 300-feet level. The incline 60 feet from the north line is now down some 20 feet in fine ore, a small portion of which is being reserved for dry crushing. Shipments of bullion during the current month have amounted to about $80,000 thus far.

Yellow Jacket has been dealt in to the extent of 325 feet, advancing from $440 to $480, dropping to $440, rallying to $470, then declining to $360, seller 30, and selling yesterday at $390@400. During the week ending February 12th, 647 tons of ore were hoisted to the surface; 120 tons were reduced at outside mills, yielding $33.77 per ton, and the total receipts of bullion amounted to $14,850. The Kentuck company, in drifting to the Yellow Jacket line, and then west, at a depth of 285 feet, have met with a body of fine ore, supposed to be a continuation of the West stratum on the Crown Point.

Ophir has been rather steadily maintained, advancing from $435 to $450, receding to $430, and closing at $425. This mine continues to produce some fine ores taken from the fourth and sixth station levels. In the ninth gallery there is nothing new. The south drift has now reached a point 90 feet north of the Central shaft.

Chollar-Potosi rose from $305 to $325; receded to $306, and then sold at $306@324. Within this range more than 300 feet was dealt in. The Grass Valley Station is said to have improved a little recently. The Bajazette ground shows no change, and the Stope over head of Incline is looking as well as formerly. In the 2d Station the south end shows some improvement in raising up. Station 60 feet below Potosi tunnel good ore is now found on both sides of the old works. In the mine, new shaft, etc., 154 men are now employed. During the week ending February 16th, 637 tons of ore were sent to custom-mills, yielding an average of about $28 per ton, and 591 tons were sold at an average of $5½ per ton.

Alpha rose from $260 to 280, then sold at $240@242, closing at $245. Belcher rose from $190 to $220, buyer 30, dropped to $170, rallied to $185 and $190, buyer $30, and sold yesterday at $190@195. Empire Mill and Mining company met with small sales at 175@180, closing at $190 asked.

Imperial advanced from $116 to $121, and sold yesterday at $119 @$120, seller 30. The yield of the Company's mill for the first two weeks of this month amounted to $29,632.

Bullion rose to $67, fell to $59, and sold yesterday at $58@$59. Drifting still continues at a depth of 680 feet, and it is thought that the lode will be reached east of the engine shaft.

Overman has been sold at 48 to 55, and closes at $55. Work is progressing vigorously in the 600-feet level west and north of the engine shaft.

Confidence suddenly advanced from $41 to $63, then declined to 50 and closed at $75. Lady Bryan was sold at 4@4½, Exchequer 6¼ @7, Wide West at $9, and Sierra Nevada at $8.

The aggregate recorded sales of Stocks and Legal Tender Notes, since Saturday last, amounted to $839,191 50.

San Francisco Stock and Exchange Board.

SAN FRANCISCO, Feb. 23, 1866

	Bid.	Asked.
United States 7 3-10ths	$ 74	$ 74½
Gov. Legal Tender Notes	73¼	73½
State Bonds, 7 ℔ cent	86½	87
San Francisco 10 ℔ cent	..	..
San Francisco Bonds, 1855, 6 ℔ cent	70	..
San Francisco Bonds, 1858, 0 ℔ cent	67	..
Sacramento City Bonds, 6 ℔ cent	..	..
Sacramento County Bonds, 6 ℔ cent	50	55
Marysville Bonds, 10 ℔ cent	75	..
Stockton Bonds, 10 ℔ cent	60	..
Yuba County Bonds, 10 ℔ cent	75	80
Butte County Bonds, 10 ℔ cent	65	80
California Navigation Co	55	55½
State Telegraph Stock	22	..
San Francisco Gas Co	107	108
Sacramento Gas Co	..	75
Spring Valley Water Co	60	60½
RAILROADS.		
Sacramento Valley Railroad	..	
Omnibus Railroad	47	50
Central Railroad Co	..	65
North Beach and Mission	48	50
MINING STOCKS.		
Ophir	$ 425	$ 430
Gould & Curry	1000	1010
Empire M. & M. Co	175	185
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	805	810
Chollar Potosi	303	305
Hale & Norcross	1000	1010
White & Murphy	....	....
Sierra Nevada	8	9
Yellow Jacket	400	405
Overman	51	52
Cedar Hill Tunnel	....	....
Wide West	9	10
Crown Point	1030	1050
Antelope	....	....
Emeralda	1	5
Ætna	....	....
Real del Monte	..	15
Bullion, G. H.	59	60
Buckeye	....	....
Dick Sides	....	....
Imperial	119	119
Alpha	200	205

THE PRESS is a large, sixteen-page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

San Francisco Jobbing Prices Current.

Flour, extra, ℔ bbl	7 00	@	7 25
Do Superfine	6 75	@	7 00
Corn Meal, ℔ 100 lb		@	3 50
Wheat, ℔ 100 lb	2 10	@	2 25
Oats, choice, ℔ 100 lb	2 05	@	2 20
Barley, ℔ 00 lb	1 10	@	1 15
Beans, ℔ 100 lb	4 50	@	5 50
Potatoes, ℔ 100 lb	1 05	@	1 25
Hay, ℔ ton	11 00	@	18 00
Live Oak Wood, ℔ cord	8 08	@	10 00
Beef, on foot, ℔ lb	6	@	7
Beef, extra, dressed, ℔ lb	12½	@	15
Sheep, on foot	1 00	@	2 00
Hogs, on foot, ℔ lb	9	@	10
Hogs, dressed, ℔ lb	13	@	14
Groceries, Etc.			
Sugar, crushed, ℔ lb	16	@	—
Do China	10	@	12½
Coffee, Costa Rica, ℔ lb	—	@	27
Do Rio	26	@	—
Tea, Japan, ℔ lb	85	@	1 00
Do Green	70	@	1 00
Hawaiian Rice, ℔ lb	8	@	10
China do	7	@	8
Coal Oil, ℔ gal	1 10	@	1 15
Candles, ℔ lb	24	@	26
Ranch Butter, ℔ lb	50	@	55
Ishmus do	35	@	40
Cheese, California, ℔ lb	20	@	26
Eggs, ℔ doz	40	@	45
Lard, ℔ lb	22	@	23
Ham and Bacon, ℔ lb	25	@	—
Shoulders	20	@	22

San Francisco Retail Prices Current.

Butter, California fresh ℔ lb	50	@	60
do pickled ℔ lb	—	@	—
do Oregon	35	@	40
do New York, ℔ lb	45	@	50
Cheese, ℔ lb	25	@	35
Honey, ℔ lb	30	@	40
Eggs, ℔ doz	50	@	—
Lard, ℔ lb		@	25
Hams and Bacon, ℔ lb	28	@	30
Cranberries, ℔ gal	60	@	70
Potatoes, sweet, ℔ lb	8	@	—
do Irish, ℔ lb	1	@	2½
Tomatoes, ℔ lb	5	@	8
Onions, ℔ lb	4	@	6
Apples, No. 1, ℔ lb	8	@	10
Pears, table ℔ lb	3	@	10
Plums, dried, ℔ lb	15	@	25
Peaches, dried, ℔ lb	15	@	25
Grapes, ℔ lb	5	@	18
Oranges, ℔ doz	62	@	75
Lemons, ℔ doz	1 25	@	1 50
Chickens, apiece	87	@	1 12

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

SAN FRANCISCO, Feb. 16, 1866.

IRON.—Duty: Pig $9 ℔ ton; Railroad 60c ℔ 100 lbs; Bar 1@1½c ℔ lb; Sheet, polished, 3c ℔ lb, common, 1½@1¾c ℔ lb; Plate 1½c ℔ lb; Pipe, 1½c ℔ lb; Galvanized 2½c ℔ lb.	
Scotch and English Pig ℔ ton	70 @—75
American Pig ℔ ton	60 @65
Refined Bar, bad assortment, ℔ lb	3 @—
Refined Bar, good assortment, ℔ lb	3½@—
Boiler No. 1 to 4	4 @ 5
Plate No. 5 to 0	4½@ 6
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—
COPPER.—Duty: Sheathing 3½c ℔ lb; Pig & Bar 2½c ℔ lb.	
Sheathing ℔ lb	36 @38
Sheathing, Old	20 @30
Sheathing, Yellow	35 @37
Sheathing, Old Yellow	12 @13
Bolts	13 @16
Composition Nails	30 @32
TIN PLATES.—Duty: 2½c ℔ lb.	
Plates, Charcoal, IX ℔ box	14 @15
Plates, I C Charcoal	12 @13
Roofing Plates	11 @12
Banca Tin Slabs, ℔ lb	30 @ 5
STEEL.—English Cast Steel, ℔ lb	12½@16
QUICKSILVER.—Per lb	— @65
For export	55 @—
ZINC.—Sheets ℔ lb	9½@10
LEAD.—Pig ℔ lb	8 @—
Sheet	10 @12
Pipe	10 @12
Bar	9½@10
BORAX.—California, ℔ lb	20 @23

ELECTROTYPE CUTS, ENGRAVINGS, ETC.—Our Job Printing Office is abundantly supplied with elegant engravings, ornaments, and other embellishments to suit the various branches of industry in this State.

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

After the War the Mines.—This was the policy of President Lincoln, and in keeping with this we find our generals making reports from the metalliferous districts, and disbanded soldiers, Federal and Confederate, delving for the metals, In the old gold districts of Virginia the scene of the battles between Lee and his Federal opponents, there is a return to the gold searchings of other days. More than two million dollars of gold were obtained in the past from Culpepper, Louisa, Goochland, Orange, Spottsylvania, Fluvanna, Buckingham, Prince Edward, and other and neighboring counties of Virginia, and since the Rebellion closed hundreds of former Confederate soldiers having engaged in washing the gold deposits. It is stated that about two thousand of such miners are now at work in Lonisa and Goochland counties, and that the average is two pennyweights a day to each miner. Some of the quartz is crushed with stone and iron mortars.

Situation Wanted.

An Engineer, who would take charge of a Stationary Engine, in the city or country, for a reasonable salary, desires a situation. Address, "Engine," Box 17, San Francisco Post Office. 5v12tf

Trades and Manufactures.

Pacific Glass Works

Are now prepared to execute orders for the manufacture of

All Kinds of Bottles to Order.

Office, No. 621 Clay street, San Francisco. 3v11-3m

JOHN DANIEL,
(successor to o. gobi)
MARBLE WORKS,
No. 408 Pine st. bet. Montgomery and Kearny, San Francisco.

Mantels, Monuments, Tombs, Plumbers' Slabs, Etc., On hand and Manufactured to order.

☞ Goods shipped to all parts of the State. Orders respectfully solicited. 5v8-3m

NATHANIEL GRAY,
General Furnishing Undertaker,
641 Sacramento St., corner of Webb, San Francisco.

Barstow's Metallic Burial Caskets and Cases.
1tf

THEODORE KALLENBERG,
Maker of Models for Inventors.

Machines, Mathematical, Optical and Philosophical Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.
No. 415 Market street, San Francisco. n7-tf

Palmer's Patent
ARTIFICIAL LEG,
Manufactured in Philadelphia, Penn.
JARVIS JEWETT, AGENT.
629 Washington Street, San Francisco, Cal. 10v3-1m

DENIS WHELAN,
Fashionable Boot Maker,
REPAIRING NEATLY DONE, AT SHORT NOTICE.
No. 17 Fourth Street,
Near Market street, San Francisco.
15v10-1m*

FIRE, HYDRAULIC & SUCTION HOSE,
And Leather Belting.
M. M. COOK & SON,
861 Battery Street, San Francisco,

Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.

The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO
CORDAGE MANUFACTORY.
constantly on hand,
A Large and Complete Assortment
—of—
MANILA CORDAGE,
FOR MINING PURPOSES.
—also—
WHALE LINE, BALE ROPE, ETC.,
Manufactured from Pure Manila Hemp.
Hoisting Ropes for Deep Shafts,
—also—
Lines for Ferry Boats,
Manufactured to Order.

Office at **TUBES & CO.'S,**
Nos. 611 and 613 Front street.
Manufactory at the Potre 14v10

Professional Cards.

Our Patent Agency.

The Patent Agency of the Mining and Scientific Press has been signalized with remarkable success during the past two years. The importance to the inventive genius of this coast of a thorough and reliable agency for the solicitation of Letters Patent from the United States and foreign Governments cannot be over-rated, and the Proprietors of the Press, feeling the responsibility which rests upon them, and the reward which must follow the faithful performance of their trusts, will take care to afford inventors every advantage to be secured to them through a competent and responsible agency upon this coast.

S. C. BUGBEE & SON,
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DESIGNS, MACHINE DRAWINGS, AND DRAWINGS ON WOOD.
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SAN FRANCISCO. 25v10-3m

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Mechanical & Architectural Draughtsman,
No. 422 California street, corner of Leidsdorff.

Drawings of Models made for parties applying for patents at Washington or London. mar23-tf.

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COURT COMMISSIONER, appointed by the Fourth District Court. COMMISSIONER OF DEEDS for Nevada and Massachusetts,
Court Block, San Francisco.
Entrances opposite City Hall, Merchant street, and 636 Clay street. 14v1ltf

DR. H. AUSTIN,

DENTIST,

No. 634 Washington Street,
Between Montgomery and Kearny Streets
[over San Francisco Baths]
SAN FRANCISCO. 20v10-qy

AUGUST KUNAST,
Stock Broker,
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Buys and Sells Stocks, Bonds, Etc.
Office, No. 540 Washington Street, San Francisco. 2v10

G. F. DEETKEN,
Mining Engineer and Metallurgist,
Address - - - - - San Francisco.
25v9

WILLIAM P. BLAKE,
MINING ENGINEER,
Will make Surveys and Examinations of Mines, or give advice regarding their working, the erection of Machinery, etc.
Office at Union Iron Works, corner of First and Mission sts., or Lock Box 2,077 Post Office, San Francisco. 11v22qy

W. O. ANDREWS,
NOTARY PUBLIC,
—and—
COMMISSIONER OF DEEDS,
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10v8qy

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10v8-tf

SHERMAN DAY,
Mining Engineer,
No. 57 Montgomery Block, San Francisco,
Will examine, survey and report upon mines, and conduct and advise concerning investments in mining property, or the machinery management and expenditures of mines.
22q*

To Mining Companies.

A GENTLEMAN OF MUCH EXPERIENCE AS A MINing Superintendent, in England, Spain, and on the Pacific coast, and one intimately acquainted with every department of mining, and with nearly every class of mineral, is desirous of securing a position as Superintendent of some mining operation in California or Nevada. The applicant was for four years Superintendent of the New Almaden Quicksilver Mine, in this State. The best of references given on application at this office.
San Francisco, Oct. 12, 1865 5v11tf

REMOVAL.
MONS. A. COULON,
Informs his patrons that he has removed his DRAWING SCHOOL from Pine street to
410 Kearny Street.
Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done.
20v11-1m

Volume Twelfth.—The Mining and Scientific Press, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

Metallurgy.

MOSHEIMER'S CONCENTRATOR
RECEIVED THE FIRST PREMIUM

From the ROYAL POLYTECHNIC SOCIETY, in Cornwall, and was highly recommended by the Commissioners as the most Simple and Effective Concentrator for all kinds of Ores.

Every Quartz Mill ought to have them, as they not only save Gold and Silver, but also the Quicksilver and Sulphurets, without extra labor. They can be built entirely of wood at the mine, and will separate more perfectly in one operation, than any other Concentrator in use. Apply to

J. MOSHEIMER,
23v11qy 423 Washington street.

EUROPEAN
METALLURGICAL WORKS,
—and—
Practical Mining School,
Bryant Street, Between Third and Fourth,
SAN FRANCISCO.

The Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

S. P. Kimball, J. R. Murphy.
10v10

SODIUM AMALGAM!
With Instructions for its Use.
THE ABOVE
FOR SALE IN ANY QUANTITY THAT MAY BE REQUIRED,
—by—
H. P. WAKELEE, Importer,
2v12 1m Corner Montgomery and Bush streets.

G. KUSTEL,
Metallurgist and Mining Engineer,
Stevenson House, corner Montgomery and California sts.
Ores Analyzed,
Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
20v11-3m

BOALT & STETEFELDT,
Metallurgists and Mining Engineers
AUSTIN, NEVADA.
Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

Copper, Lead, Gold, Silver,
Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

THOMAS PRICE,
Agent for Townshend Wood & Co., Swansea,
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15v10-3m

MARTIN & CO.,
Office, Stevenson House,
Corner California and Montgomery streets (up stairs).
WILL CONTRACT FOR THE
PURCHASE OF COPPER ORES,
Assaying eight per cent. and upwards of Copper to the
We will make advances upon Ores of Copper.
San Francisco, Post Office Box 1259. 22

MINERS

Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.

Gold, Silver and Copper Ores bought in any quantity.

Assay of Ores made by a new Fire Process in half the usual time, an at half price.

Apply to **J. MOSHEIMER,**
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WILLIAM PENROSE,
Agent for Messrs. Vivian & Son and Dillwyn & Co., Smelters at Swansea,
Is prepared to buy in any quantity
COPPER, SILVER, GOLD, LEAD
AND OTHER VALUABLE ORES;
Also Lead Bars Containing Gold and Silver,
☞ Full value paid on delivery in this City.☜
Address Lock Box No. 992, P. O., San Francisco. 25v10

SODIUM,
Potassium, Magnesium,
And a fresh supply of
PURE CHEMICALS.
Just received and for sale by
JOHN TAYLOR & CO.,
4v12-1m 512 Washington street.

ADVANCES MADE
—on—
Copper Ore,
BY ALSOP & CO.,
4v12-3m **California Street, San Francisco.**

Mines Sold in New York.

THE SUBSCRIBER HAVING EXCELLENT FACILITIES for disposing of Gold, Silver and Copper Mines of the Pacific coast in New York and Boston, will be pleased to confer with those having mines for sale. No charges unless sales are made
Refers to R. G. Sneath, G. W. Gibbs, Thos. Hill.
4v12 J. WILLIAMS, 415 East street.

By Authority of the State of California,
Having fully Complied with the Law by a Deposit of $525,000 Bonds of the State of California and the United States.

BIGELOW & BROTHER,
General Insurance Agents.

Fire, Marine, and Life Insurance.

CAPITAL REPRESENTED $15,000,000.

California Deposit, $525,000.

OFFICES—N. W. corner of Montgomery and Sacramento streets.

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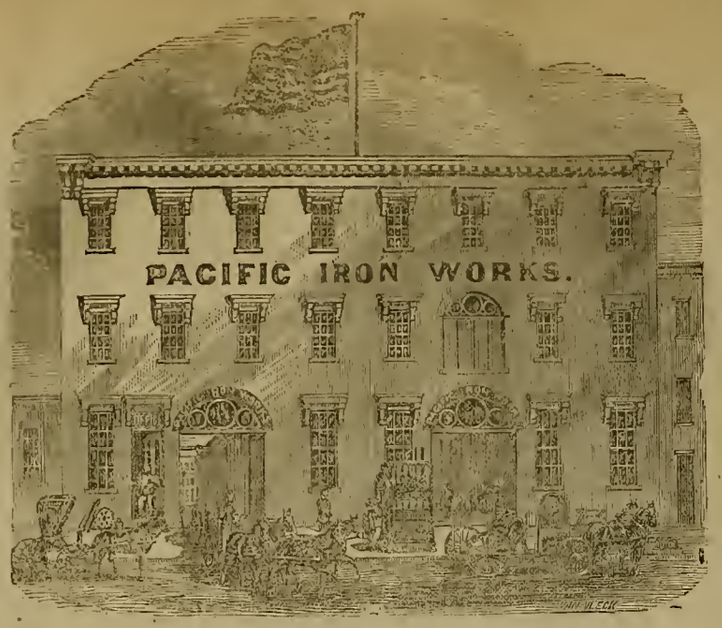

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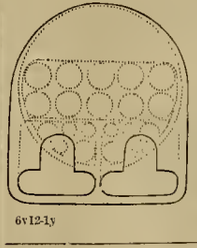

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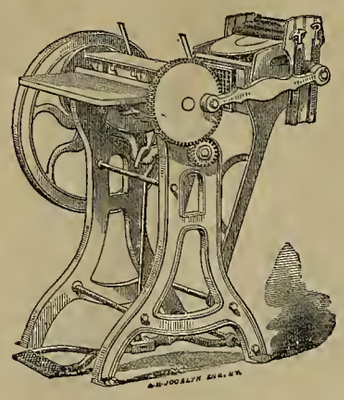

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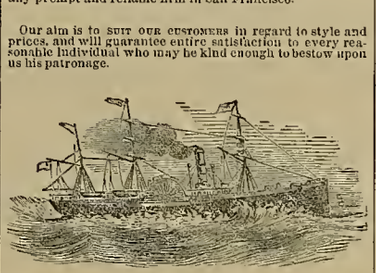

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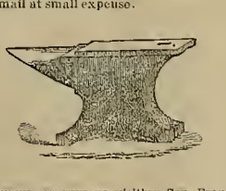

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New Mining Advertisements.

Continued Mining Advertisements will be found under another head

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal. Assessment No. 10.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 20th day of February, 1866, an assessment of one dollar and fifty cents ($1.50) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on Saturday, the 24th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 10th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco.

NOTICE.—By an order of the Board of Trustees, made in the above Company, all the Certificates of Shares outstanding of the old stock are annulled, and have been replaced by issues of Certificates of the new stock, and parties are cautioned against purchasing any of the old Certificates, as they are all cancelled on the books of the Company, and all transfer of the same stopped.

feb24 W. D. ROOT,

Walipi Gold, and Silver Mining Company, Moss Lode, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that the Annual Meeting of the stockholders of the Walipi Gold and Silver Mining Company, will be held at the office of the Company, No. 620 Washington Street, San Francisco, ON WEDNESDAY, March 21, 1866, at 12 o'clock M. Trustees will be elected, and other important business transacted.

feb24-4w H. B. CONGDON, Secretary.

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Consolidated Silver Hill Mining Company. Location of Works: Esmeralda District, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Ainsworth, J C	337	12	$24 00
Braly, F C	159	10	20 00
Buckman, J A	294	30	60 00
Buckman, J A	914	10	20 00
Barkelow, John	700	5	10 00
Barkelow, John	973	10	20 00
Boyd, Jas T	872	10	20 00
Bennet, Th	764	10	20 00
Bradford, C H	947	10	20 00
Bohn, S H	932	25	50 00
Belden, H	959	3	6 00
Belden, H	960	2	4 00
Barker, J	995	5	10 00
Cullen, J W	101	8	16 00
Center, M	194	5	10 00
Cohen, S	502	2	4 00
Carlyle, Mary E	967	14	28 00
Chamberlin, A L	993	10	20 00
Chamberlin, A L	994	10	20 00
Donahue, W M	326	5	10 00
Dunn, E T	350	10	20 00
Daly, John T	411	10	20 00
Daly, John T	412	10	20 00
Eckel, J N	321	10	20 00
Feast, W	727	5	10 00
Feast, W	728	5	10 00
Feast, W	729	5	10 00
Feast, W	730	5	10 00
Feast, W	731	5	10 00
Feast, W	732	5	10 00
Feast, W	733	5	10 00
Feast, W	734	5	10 00
Feast, W	735	5	10 00
Feast, W	736	5	10 00
Falkenan, J	606	5	10 00
French, J M	710	5	10 00
French, J M	737	10	20 00
French, J M	738	5	10 00
Foy, J D	773	15	30 00
Foley, T	1041	20	40 00
Gillin, D F	838	3	6 00
Gillin, O F	794	10	20 00
Gillin, O F	797	15	30 00
Gillin, O F	939	10	20 00
Gillin, O F	940	10	20 00
Grinbaum, M S	772	10	20 00
Grinbaum, M S	854	5	10 00
Gattell, B	1048	10	20 00
Howston, John, Jr	280	20	52 00
Hadeler, H	652	10	20 00
Harper, W M	875	2	4 00
Hamden, W H	901	5	10 00
Hoerchner, C J	901	5	10 00
Hawkins, Julia	984	3	6 00
Kellogg, S W	336	2	4 00
Kohler, A	562	10	20 00
Kessing, B	1030	8	16 00
Lohani, Ch	413	5	10 00
Lewitzky, H	869	12	24 00
Leppien, J	978	3	6 00
Levy, A	1024	4	8 00
Murphy, J L	733	42	84 00
Murray, J	661	26	52 00
Murray, J	801	10	20 00
Mitchell, O C	906	10	20 00
Marcus, A	1049	10	20 00
Mandlebaum, F	853	20	40 00
McLea, Donald	905	12	24 00
Newmark, J P	bal 787	2	4 00
Osgood, John K	361	2	4 00
Osgood, John K	898	30	60 00
Parker, B G	170	25	50 00
Pfister, C	826	5	10 00
Pollemus, C B	870	10	20 00
Phelan, Jas	883	13	26 00
Phelan, Jas	884	12	24 00
Phelan, Jas	886	30	60 00
Phelan, Jas	887	20	40 00
Perry, John, Jr	889	6	12 00
Perry, John, Jr	817	2	4 00
Perry, John, Jr	890	15	30 00
Perry, John, Jr	891	25	50 00
Perry, John, Jr	1039	20	40 00
Redington, J H	374	15	30 00
Redington, J H	311	10	20 00
Redington, J H	312	5	10 00
Redington, J H	313	5	10 00
Redington, J H	314	5	10 00
Rosenfeld, J	bal 823	5	10 00
Reichenbach, J	934	10	20 00
Robbins, J J	1025	9	18 00
Robbins, J J	1026	10	20 00
Robbins, J J	1027	10	20 00
Robbins, J J	1028	10	20 00
Robbins, J J	1029	10	20 00
Robbins, J J	1030	10	20 00
Robbins, J J	1031	10	20 00
Robbins, J J	1032	5	10 00
Robbins, J J	1033	4	8 00
Robbins, J J	1034	1	2 00
Robbins, J J	1035	15	30 00
Shotwell, J M	903	10	20 00
Shirley, P	335	2	4 00
Schofield, H	935	20	40 00
Schmiedell, H	bal 843	5	10 00
Sparks, Z W	1045	10	20 00
Spense, W A	807	10	20 00
Spense, W A	904	5	10 00
Stevens, Th	972	20	40 00
Stevens, Th	981	10	20 00
Stevens, Th	976	5	10 00
Stevens, Th	977	15	30 00
Toomy, D	bal 104	5	10 00
Tracy, Theo F	320	5	10 00
Tracy, Theo F	327	5	10 00
Talbot, T A	574	5	10 00
Tams, S	bal 744	3	6 00
Toomy & Fagan	769	10	20 00
Turney, John H	871	10	20 00
Levy, H	752	10	20 00
Levy, H	753	10	20 00
Levy, H	931	20	40 00
Stanley, S L	1043	15	30 00
Van Bergen, N	558	10	20 00
Vanderslue & Co	874	5	10 00
Watson, N A	011	10	20 00
Wadham, W	830	5	10 00
Ponton, L de Arce	080	7	14 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co, at the office of the Company, Room No. 15, Government House, San Francisco, Cal., on the 3d day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

feb17 JOHN S. MACKENZIE, Secretary.

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Evoca Consolidated Copper Mining Company. Location of Works Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 31st day of January, 1866, an assessment of twenty-five (25) cents per share was levied upon the assessable capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, at No. 537 Washington street, room No. 3, in the City and County of San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

CHARLES E. ABBOT, Secretary.

Office, 537 Washington street, Room 3, San Francisco, Cal. feb3

Jewett Gold and Silver Mining Company, Gold Hill District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 29th day of January, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 20th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

G. M BURNHAM, Secretary Pro tem.

Office, 436 Jackson street. feb3

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of February, 1866, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

A. B. WINEGAR, Secretary.

Office, 308 and 310 Front Street, San Francisco. feb17

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable on the 2d day of February, 1866, in United States gold and silver coin, to the Secretary, at his office.

Any stock upon which said assessment shall remain unpaid on Saturday, the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. feb3

Leland Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 2d day of February, 1866, in United States gold and silver coin, to the Secretary, at his office.

Any stock upon which said assessment shall remain unpaid on the 3d day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 19th day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary,

Office, 302 Montgomery street, San Francisco, Cal. fe3

Providence Gold and Silver Mining Company, Nevada District, Nevada County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of February, 1866, an assessment of one ($1) dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco. feb10

Southern Light Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of February, 1866, an assessment (No. 8) of twelve dollars and fifty cents ($12.50) per share was levied upon the capital stock of said Company, payable immediately, in United States gold or silver coin, to the Secretary, at his office, No. 228 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 10th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 26th day of March, 1866, at 3 o'clock, P. M., to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

E. J. DRINKHOUSE, Secretary.

Office, No. 228 Front street, San Francisco, Cal. feb10-4w

United States Mining Company.---Location: Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of February, 1866, an assessment of fifty (50) cents per share was levied on each and every share of the capital stock of said company, payable immediately, in gold or silver coin of the United States, to the Secretary, at his office, or to F. A. Marston, Virginia, Nevada.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised as delinquent, and unless paid, will be sold on Saturday, the 31st day of March, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. feb10

Wide West Gold and Silver Mining Company. Location: Silver Mountain District, Alpine County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Mrs S K Arnold	228	5	$15 00
Reuben Best	130	5	15 00
Reuben Best	140	5	15 00
Reuben Best	141	5	15 00
Reuben Best	155	6	18 00
Reuben Best	237	31	93 00
Reuben Best	259	31	93 00
Reuben Best	299	3	9 00
Reuben Best	302	32	96 00
Reuben Best	162	10	30 00
Reuben Best	135	5	15 00
Geo E Brush	120	4	12 00
J S Brown	213	10	30 00
P D Bailey	253	17	51 00
J G Brayton	283	10	30 00
J G Brayton	284	10	30 00
J C Brayton	285	10	30 00
J G Brayton	286	10	30 00
J G Brayton	287	10	30 00
J G Brayton	288	10	30 00
J G Brayton	289	5	15 00
J G Brayton	290	5	15 00
J G Brayton	291	5	15 00
J G Brayton	292	5	15 00
Frank Cable	not issued	250	750 00
B Capell	69	10	30 00
B Capell	70	10	30 00
B Capell	71	5	15 00
B Capell	262	10	30 00
B Capell	77	5	15 00
B Capell	80	5	15 00
B Capell	81	10	30 00
B Capell	82	10	30 00
B Capell	78	5	15 00
B Capell	79	5	15 00
P Christianson	114	8	24 00
P Christianson	115	5	15 00
W B Carleton & E W Leach	187	5	15 00
W B Carleton & E W Leach	188	5	15 00
Jas S Capel	231	10	30 00
W J Dobbins	25	25	75 00
W J Dobbins	306	25	75 00
M L Durbin	237	10	30 00
Wm Demming	248	10	30 00
Wm Demming	249	10	30 00
John Dawdy	309	5	15 00
S B Edsall	not issued	150	450 00
Wm Edgington	223	10	30 00
Thos Earl	238	15	45 00
Wm H Gibbs	260	10	30 00
B R Johnson	250	10	30 00
B R Johnson	251	10	30 00
John Gillam	240	10	30 00
Wiley F James	241	5	15 00
Wiley F James	242	5	15 00
Wiley F James	243	5	15 00
Wiley F James	244	5	15 00
Wiley F James	245	5	15 00
Charles Kather	300	10	30 00
A B Lake	121	4	12 00
N Lawrence	234	16	48 00
J A McGilmsey	not issued	75	225 00
J A McGimsey	305	10	30 00
J A McGimsey	33	5	15 00
J A McGimsey	34	6	18 00
J Mechlnberg	113	5	15 00
James Morrison	41	5	15 00
Robt McReynolds	118	10	30 00
Jacob McReynolds	122	2	0 00
Jacob McReynolds	241	5	15 00
Donald McDonald	234	10	30 00
Geo W Maxwell	193	5	15 00
A C McDonnell	225	5	15 00
A C McDonnell	226	7	21 00
Chas McIntire	265	10	30 00
Wm McGill	301	10	30 00
J N Pierson	195	10	30 00
Geo F Reeves	230	5	15 00
J W B Reynolds	19	25	75 00
J W B Reynolds	20	25	75 00
J W B Reynolds	184	15	45 00
J W B Reynolds	22	25	75 00
T H Rickmaa	127	5	15 00
T H Rickman	128	10	30 00
T H Rickman	129	8	24 00
Rickman & Sewell	130	5	15 00
Andrew Stephens	106	20	60 00
Andrew Stephens	107	20	60 00
Andrew Stephens	108	20	00 00
Andrew Stephens	186	20	60 00
Ole Simondson	119	5	15 00
John Stilts	232	20	60 00
Stilwagon & Boynton	256	33	99 00
W W Stilwagon	267	10	30 00
O P Southwell	200	5	15 00
T Vann	270	10	30 00
Jerome Wade	35	5	15 00
Jerome Wade	36	5	15 00
Jerome Wade	37	5	15 00
Jerome Wade	38	5	15 00
B F White	42	12½	37 50
R J Whitton	66	10	30 00
M S Whitton	2	5	16 00
M S Whitton	304	15	45 00
F Whitton	62	20	60 00
Mrs N Whitton	63	10	30 00
W H Whitton	48	20	60 00
W H Whitton	49	5	15 00
W H Whitton	51	5	15 00
S C Wolfskill	179	25	75 00
A G Wood	272	20	60 00
A G Wood	273	20	60 00
A G Wood	274	20	60 00
A G Wood	275	20	60 00
A G Wood	276	20	00 00
A G Wood	277	20	60 00
A G Wood	278	20	60 00

And in accordance with law, and an order of the Board of Trustees, made on the said 4th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 21st day of February, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOSEPH GREEN, Secretary.

Office, 330 Davis street, San Francisco. feb3

POSTPONEMENT.—The above sale is hereby postponed until Friday, March 2, 1866, at the same hour and place. By order of the Board of Trustees.

feb10 JOSEPH GREEN, Secretary.

HIGH RENTS.—The New York *Express* gives the following list of rents in that city:

Twenty-eighth st., near 5th avenue,	$650	per month.
Eleventh street, nicely furnished,	550	"
Forty-fourth st., 20x60 feet	600	"
Forty-seventh street, 20x40 feet,	300	"
Fifth avenue, large and elegant,	1,200	"
Union Square, house and stable,	1,100	"

A house on Union Sqnare, (old-fashioned style, not very remarkable for anything) rented for $1,000—$12,000 per annum, about half of the salary of the President of the United States.

THE LATE FLOODS have done immense damage in Solano, Yolo and Yuba counties. The levees constructed under the Swamp Land Law have been of no nccouut.'

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mniug property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

FOR SALE.

Owing to the great distance from our point of manufacture. we offer for sale the State Right of California for our

Patent Boring Tools for Artesian Wells,

Illustrated upon the first page of this paper February 17th. These Tools are now in use in the various Oil Regions of Pennsylvania, Ohio and Virginia; and although but just introduced, are universally approved and admired, and bid fair to become eventually the most popular tools in use. We shall close without reserve to the party sending us the highest bid, to whom we will mail a complete set of Drawings, copy of Circulars, etc.

Address, fully,

A. A. WILSON,
Morgan Iron Works,
7v12tf Foot 9th street, East River, New York City.

GEORGE E. BROWN,

(Late Assistant Examiner in the U. S. Patent Office,)

HAVING RESIGNED THAT POSITION AFTER A TEnure of office of eighteen months, offers his services to

INVENTORS AND THEIR ASSIGNEES,

—AS A—

Patent Solicitor,

He will make Preliminary Examinations in the Patent Office, with a view to ascertain the Patentability of any invention that may be submitted to him for that purpose; will prepare the necessary papers for those who wish to make Applications for

Patents for their Inventions,

—OR FOR—

EXTENSIONS OR REISSUES OF PATENTS

Already granted; will act as an Attorney in presenting Applications at the Patent Office, and in managing them to a final issue; will draw up Assignments; will examine into the condition of Rejected Applications when desired to do so, and undertake the prosecution of such as may be considered patentable, and do whatever else is usually done by Patent Solicitors.

Address, P. O. Box 257, Washington, D. C. 7v12-3m

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLAture of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS.

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire.....	$12,973,949
Marine.....	434,403

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

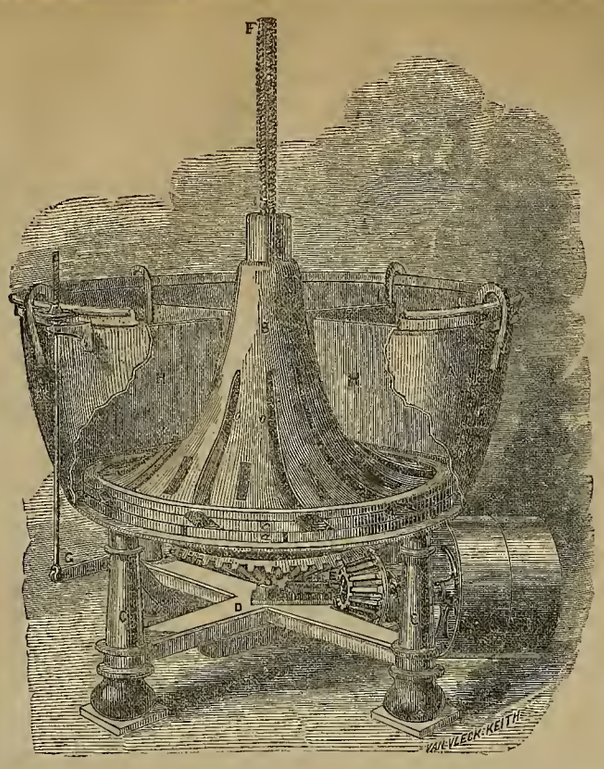
J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19, 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheesman,	Chas. Mayne,
Abm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Anson G. Sciles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John C. Earl,
C. Meyer.	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m



THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and o, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,
WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.

SAN FRANCISCO, June 13, 1865.

LICK HOUSE,
Corner of Montgomery and Sutter streets,
SAN FRANCISCO.

S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests.
15v11

SACRAMENTO SEMINARY.

BOARDING SCHOOL
FOR YOUNG LADIES,
Tenth Street, between F and G.

Session commenced January 8, 1866.
MR. AND MRS. HERMON PERRY,
7v12tf **Principals.**

WHAT CHEER HOUSE,
SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals.....	25 cents.
Board, per week.....	$4 00
Board and Lodging, per day.....	1 00
Single Rooms.....	50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m **A. J. SMATZ, Proprietor.**

A Good Financial Weekly.

The Stockholder:
MONITOR OF FINANCE AND INDUSTRY,

Is published every Tuesday Morning,

At 72 William street, New York,

—GIVING—

Quotations of all important Bonds and Stock Securities in the United States; GOVERNMENT, STATE, CITY, BANK, INSURANCE, PETROLEUM, MINING, and other miscellaneous Joint-Stock Organizations, with the Financial Statements of the same; Notices of Payment of Interest and Dividends—

fact, all matters that can be of interest to Security-holders.

Its columns will be found replete with important and useful financial information.

The Quotations given are correct, and may be relied upon either for the purchase or sale of Bonds or Stocks.

THE STOCKHOLDER is the *only strictly financial paper published in the United States.*

TERMS, FIVE DOLLARS PER YEAR.

All letters should be addressed,

GEO. M. NEWTON, Publisher,
5v12tf 72 William street, New York.

Removal.

The Office of the MINING AND SCIENTIFIC PRESS has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive JOB PRINTING OFFICE.

San Francisco, April 10th, 1865.

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,
No. 602 Montgomery street, San Francisco.
EXCLUSIVE AGENT
—FOR THE—
AMERICAN
WATCH FACTORY.
A large assortment of these
Superior Watches,
In Gold and Silver Cases,
Constantly on hand, and sold at Factory prices. Also,
ENGLISH AND SWISS WATCHES,
Imported directly from he Manufacturers.
The American Company are now making
VERY FINE WATCHES FOR LADIES.
☞ A large assortment of Gold Chains and Jewelry. 25v10 6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

CALIFORNIA CLOTH,
For Wholesale and Retail Trade,
ALSO, CLOTHING MADE TO ORDER,
AT QUINCY HALL,
Nos. 545, 547 and 549 Washington Street,
SAN FRANCISCO, CAL.
CLOTHING MADE FROM
19-v11-3m

SUBSCRIBE FOR IT.—The large, illustrated sixty-four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

JOHN TAYLOR & CO.,
—IMPORTERS AND DEALERS OF—
ASSAYERS' MATERIALS,
Druggists' & Chemists' Glassware,
Photographic Stock, Etc.
512 and 514 Washington Street,
SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco, March 6, 1865. Hv10-tf

CHARLES BERNARD,
MANUFACTURER AND DEALER IN
Family Chartres Coffee,
AND SPICES OF ALL KINDS,
No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.

First Premium Awarded
BY THE MECHANICS' INSTITUTE,
FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to.
15v11-3m

OIL WELL BORING.
J. SEVENOAKS,
Contractor
For Well Boring and Erecting all kinds of Machinery connected therewith.

Having had extensive experience in boring for oil in Pennsylvania, Canada and elsewhere, I feel confident of being able to give entire satisfaction. Persons desirous of making contracts as above, or wishing information with regard to oil indications, etc., will please address me at the office of the "Mining and Scientific Press," San Francisco, or to my personal address, Box 1239 San Francisco. 2v11

MINING PROPERTIES.

PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble.
1v12

ENGRAVED TO ORDER.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st

Bad Luck is simply a man with his hands in his breeches pocket and a pipe in his mouth, looking on to see how it will come out. Good luck is a man of pluck to meet difficulties, his sleeves rolled up working to make it come out right.

An Important Truth.—Neither in the material body nor in the moral body, was a sore ever healed, or a disease cured, by being concealed. Exposure to light and air is the universal law of surgery, whether of mind or of body.

Trouble Between England and Victoria. The London *Times* says the present contention in the Colony of Victoria, if carried much further, must assume the form of a conflict between the Assembly and mother country.

By Mail.—The Mining and Scientific Press will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

BACK VOLUMES.

Back files of the Mining and Scientific Press, from January 1st, 1864, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

Send us Word.—If any subscriber to this Journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

VALUABLE
PATENT RIGHT
FOR SALE.

The patent right for the United States of a valuable invention can be secured at a bargain by applying at this office. The article is one of general application throughout civilization.

DEWEY & CO., Publishers.

RUGGLES' PRINTING PRESS
For Sale or Exchange.

The Proprietors of the Mining and Scientific Press have on hand a Half Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,
Office, 505 Clay street.

Mining and Scientific Press
JOB PRINTING OFFICE,
No. 505 Clay street, corner of Sansome.

CERTIFICATES
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—FOR—
MINING
—AND—
PETROLEUM
Companies
Neatly Printed.

Stock Certificates of all kinds embellished with wood cuts and electrotype engravings. We devote special attention to the execution of all kinds of work required by Mining Companies, Machinists and Manufacturers.

HENDY'S
IMPROVED BLOW-PIPE.
This Convenient Helpmeet
—TO THE—
ASSAYER, CHEMIST, DENTIST, JEWELLER, PROSPECTOR AND MILLMAN,

Can now be procured, at the Patentee's price, by sending your orders, by mail or otherwise, to the

Office of the Mining and Scientific Press.

This article was more fully mentioned in the Press of April 15th, 1865. Since that time, however, Mr. Hendy has made a further improvement by attaching a rubber hose between the mouth-piece and the pipe, enabling the blower to change his position without disturbing the direction or constant accuracy of the current on the object upon which it is turned. The main portion of the blow-pipe is made with a joint, at which a valve is placed, which is opened when the operator blows and closed immediately when he ceases. By this arrangement the little bag or bladder is readily filled at a single breath, and with very little exertion. When so filled, a continous current of air is forced from the nozzle of the pipe by the mere contractive force of the gutta percha. This force is uniform until the air is very nearly exhausted. The current may be easily varied or entirely cut off by gently pressing the fingers upon the neck of the bladder above the nipple to which it is attached.

Price, Complete.....$5.00.
Call and examine samples.

Sent by mail, if desired. Address

DEWEY & CO.,
16v10 tf No 505 Clay street, San Francisco

Machinery.

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,
Awarded a Silver Medal at the late Mechanics' Fair.

Hunter's Concentrator can be seen in operation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; not a particle of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest irregularity of speed the best of results were given.

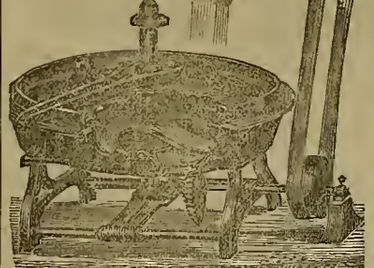
5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant

6th. In exhibiting the working of the machine if it is not run empty, all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v12-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD'S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine Scientific Knowledge with Practical Experience, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; its small cost; its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltham's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Hengh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

BLAKE'S
QUARTZ BREAKER
Is now extensively used for breaking hard masses of
Quartz or Ores
To a size suitable for stamps. These machines are patented, and are in practical operation in
CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.
Address,
BLAKE & TYLER,
Box 2077 San Francisco Post Office.
CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Hepburn & Peterson's
AMALGAMATOR.

The subscribers would call the attention of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

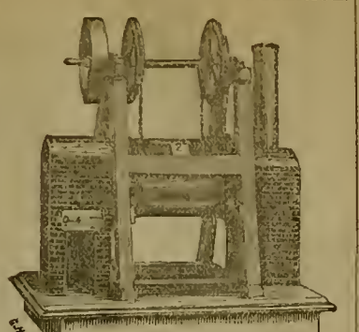
Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, 141 St. bet. 3d and 4th. [Illustrated in the Mining and Scientific Press, April 9th, 864.]
HEPBURN & PETERSON.
nov8 3m*

McCOMB'S
CUMULATIVE POWER PRESS
AND
ARROW TIE.
E. C McCOMB, Agent.
No. 1 Government House, cor. Sansome and Washington sts.
23v10 3m

The Mechanics' Institute
AWARDED A
PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
12v11 416 Market street, San Francisco.

HUNT'S
IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person; and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN
HORSE POWER
For Sawing Wood.
ALSO, THE
Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.
☞ For further Particulars see small circulars. ☜
E. O. HUNT,
No. 28 Second Street, and 108 & 112 Jessie Street, San Francisco. 26-3m

Portable Steam Engines!
"Houdlry's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of Weight and Price.

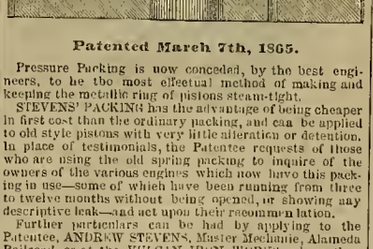
These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.
For sale by TREADWELL & CO.,
3v12-3m Corner of Front and Market streets.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df ANDREW STEVENS.

FOR SALE!
A STEAM ENGINE!

10-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Can be seen running at the San Francisco Pioneer Woolen Factory, Black Point. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

WATER WHEELS!
Equal to the Best Overshot Wheel

POWER PLEDGED

IN EXISTENCE.

LEFFEL'S
AMERICAN DOUBLE TURBINE

Is now manufactured by the Vulcan Iron Works Company, in this city, and orders for the same can be filled immediately. We have a large supply of the different sizes, from 10 inches to 30½. That we may know the proper sized Wheel you require, measure your water in the following way: Take the width of the stream, the average depth and the distance it flows in a minute.

All the Wheels already in use give universal satisfaction. For particulars send for a Circular.

This Wheel is especially adapted to mining purposes. It is light, and can be easily packed into the mountains. Wheels weighing from 50 to 300 pounds, will yield from 10 to 40 horse-power under a head of 25 or 30 feet. They are the cheapest wheel to set up known, as they are so arranged as to produce the greatest power possible from the water used.

Come and see them, or send for a Circular to

LEFFEL & MYERS,
At Vulcan Iron Works, office 137 and 139 First street, San Francisco. 4v11tf

VARNEY'S
PATENT AMALGAMATOR.
These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setters made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setters for themselves, at the PACIFIC FOUNDRY,
1v1 San Francisco.

Prater's Patent Concentrator
(Known as HUNGERFORD & PRATER'S Concentrator,)
MANUFACTURED AT THE
San Francisco Foundry and Steam Engine Works.
Corner Fremont and Mission Streets.
All orders promptly attended to.
2v12 BEVOE, DINSMORE & CO.

HUNT'S PATENT
Circular Sweep Horse-Powers,

For running Churns, Washing Machines, Grindstones, pumping water, sawing wood, and other light machinery. Price, $100, at the Factory.

HUNT'S PATENT SELF-REGULATING TREAD HORSE-POWER is superior to any machine of the kind in the market. Price, with Governor, all complete to set to work, at the Factory, $300. Manufactured by

E. O. HUNT,
7v10 28 Second street, San Francisco.

Important to Miners.
NEW PATENT! ROASTING PROCESS.

I am now prepared to offer to the mining community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A Furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day.

MORE COMPLETELY AND CHEAPER

Than any other Process. All the Sulphur is saved, by being converted into Bisulphide of Carbon, which is a valuable product, and will pay nearly all expenses.

For particulars, apply to

J. MOSHEIMER,
25v11-3m 423 Washington street.

SALMON'S
PROPELLOR AMALGAMATOR
—AND—
Challenge Settler

Has been in use and thoroughly tested, both in California and Nevada, with entire satisfaction to all parties concerned. These Machines are

Made entirely different from any others,

And with the same power will grind, amalgamate, settle and separate, more gold and silver ore than any others now in use. Manufactured at the SAN FRANCISCO FOUNDRY where Machines can be seen in operation. Address

J. & W. C. SALMON.
2v11

Economy in Advertising.—The Mining and Scientific Press is the best and most economical mining advertising medium in this city. Our terms are less than one half the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The Press contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

"The California Youths' Companion."

The following article from the *Youths' Companion*, of last week, fully explains itself:

The proprietorship of the undersigned in the YOUTH'S COMPANION, closes with the present number. Hereafter, Messrs. DEWEY & Co., of the *Mining and Scientific Press*, will assume its publication. The principal object we have had in view in making this arrangement, has been to promote the interests, and give additional value to the little paper we have established and conducted, thus far, for the amusement, instruction, and benefit of the youth of California.

The usual difficulties a new publication has to contend with in starting, and what is more important—in *continuing*—have been fully experienced by the projector of this enterprise, yet the kind words and cheerful interest of many true friends, has made the sacrifice a pleasant one. The gentlemen into whose hands the paper has now passed, have more extended means and facilities for making it what it should be, than we could command, hence the change. While our proprietorship ceases, our interest and efforts in behalf of the paper will still continue. At the request of the new proprietors, we shall continue, for the present, to look after the outside interests of the COMPANION, and on the issue of the next number shall visit, in succession, the Schools throughout the city, for the purpose of securing for it a more extended circulation among the youth of San Francisco, and eventually throughout the State. The subscriptions of all who have subscribed by the quarter, expire with the present number, and we trust that they will he prepared for renewal when we reach them.

The well-knowu position which the new proprietors hold in the city and State, as the publishers of a journal devoted more especially to the purpose of diffusing useful and iustructive information, is a guarantee quite sufficient to warrant the assumption that the readers of the YOUTHS' COMPANION, will lose nothing by the contemplated change; but on the other hand, will find a marked increase in the value and interest which will hereafter attach to its columns.

With thanks to all, but more especially to the Teachers in the department, who have afforded us every facility and assistance for the circulation of our paper, we submit it to other and abler hands. FRANK SMITH.

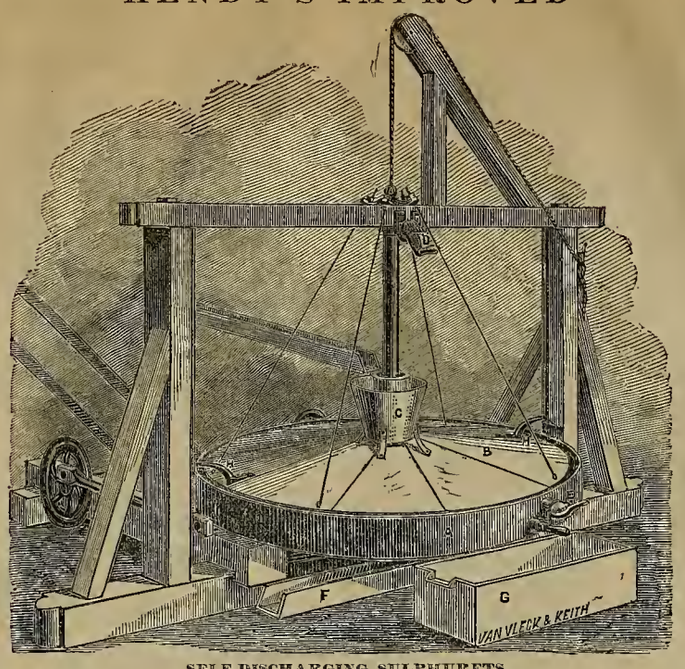
W. S. KEYES, A. M.,
(GRADUATE OF SCHOOL OF MINES, FREIBURG.)
Office, northwest corner Montgomery and Sacramento Streets.
Room No. 19, over Parrott & Co's Bank.
Assays—Analysis of Ores, Mineral Waters, etc., etc. Mines examined and reported upon.
Office Hours, from 9 to 12 M. 8v12tf

INTERNATIONAL HOTEL,
K Street, between Third and Fourth,
SACRAMENTO,
IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.
Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

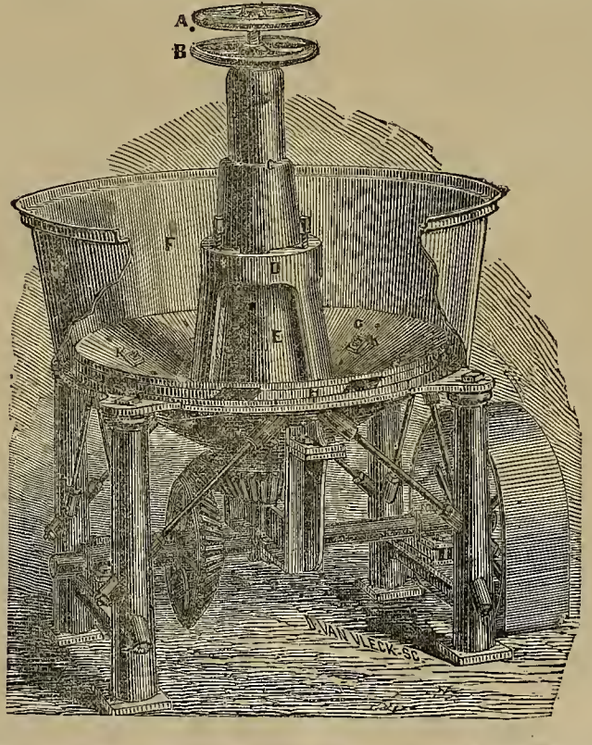
BRANNAN HOUSE,
(Formerly Vernon,)
J street, between Front and Second streets,
SACRAMENTO.
FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m **MRS. J. DUNN, Proprietress.**

Pacific Map Depot.
A. GENSOUL,
PUBLISHER, IMPORTER AND DEALER IN
MAPS, ATLASES,
Charts, Ouide-Books Globes,
Books, Stationery, and Fancy Articles,
511 Montgomery street, between Commercial and Sacramento, San Francisco.
Agents and Dealers supplied on Liberal Terms.
5v12tf

Constitution and By-Laws
— OF —
Mining and Prospecting Companies
Elegantly printed, with care and dispatch, at the office of the **Mining and Scientific Press.**
☞ Orders from the interior faithfully attended to.

HENDY'S IMPROVED


SELF-DISCHARGING SULPHURETS
PRATER CONCENTRATOR
Is Receiving Universal Favor.
NOTICE TO QUARTZ MINERS:
Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:
STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " " "
U. S. REESE RIVER MILL, Austin, "
CARROL & ASPINWALL MILL, Reese River, Nevada.
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
BLUE LEDGE MILL, near Spanish Flat, El Dorado Co.
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.
And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.
As a further evidence of its worth, two of these Concentrators were ordered recently by Messrs. Goddard & Co., of this city, for their Mill (Independence Mill), near Sonora, Tuolumne County, which are now being fitted up at the Pacific Foundry. The parties have extensive experience in quartz machinery, and have concluded to use these Concentrators in preference to all others.
A further order for a Concentrator from Messrs. Bigelow & Bro., of this city, who are now using two Concentrators at the Coney Mill, Jackson, Amador County.
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.
☞ For explanation of the above engraving, and other particulars, send for a Circular.
JOSHUA HENDY,
8v12tf No. 402 Montgomery street, Room 3, 4th floor.

Hepburn & Peterson's Pans and Separators.


WE Invite the Mining Public to examine the record of our Machines before adopting any other for producing similar results. They have been in general use for the past three years, during which time they have been repeatedly tried in comparison with every other machine of note, and of a similar nature, and have invariably been adopted in preference; which facts we offer as the most suitable recommendation, and which is attested by the following list of
Principal Mills Using them:

Names of Companies.	Location of Mill.	
GOULD & CURRY	Virginia City,	Nevada.
SILVER STATE REDUCT'N WKS.	Empire City,	"
OPHIR	Washoe City,	"
EDWARD McLEAN	Silver City,	"
SANTIAGO	Zephyr Flat,	"
RAPHAEL & HUSTED	Gold Hill,	"
FRENCH & BESLER	Dayton,	"
HERMAN, KETSCHER & CO.	Carson River,	"
A. SUTRO	Dayton,	"
DAVIS & BARRON	Carson City,	"
PHŒNIX	Silver City,	"
CHAS. S. COUVER	Silver City,	"
PIONEER	Silver City,	"
L. A. BOOTHE & CO.	Virginia City,	"
A. DEVLAND	Washoe,	"
SUCCOR MILL & MINING CO.	Gold Hill,	"
ROGERS & GRISSAM	Silver City	"
ANDERSON & SEAL	Washoe,	"
TEAKLE, ROGERS & CO		Nevada.
MELVILLE KELSEY	Silver City,	"
HUDGIN & NORMAN	Silver City,	"
YELLOW JACKET	Empire City,	"
BELDIN & GREGORY	Esmeralda,	"
BECKENDORN	Calaveras Co.,	Cal.
CARSON CREEK	Calaveras Co.,	"
CROWN LEAD	Mariposa Co.,	"
BIG BLUE LEAD	Tulare Co.,	"
E. T. STEEN	Amador Co.,	"
EAGLE	Amador Co.,	"
IDA MILL	Owens River,	"
ALACRAN	Sonora,	Mexico.
SANTA CLARA	Sonora,	"
ROSARIO & CARMAN	Sonora,	"
LIBERTAD	Sonora,	"
DON JUAN ROBINSON	Sonora,	"

Manufactured at the Principal Foundries in San Francisco.
6v12tf HEPBURN & PETERSON,
At the VULCAN IRON WORKS, Nos. 137 and 139 First Street, San Francisco.

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XII.—Geology, Mining, Etc.
XIII.—Natural History of Animal Kingdom.
XIV.—The Vegetable Kingdom.
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H. H. BANCROFT & CO.,
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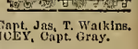
City
BRASS AND BELL FOUNDER.

Cor. Market and First Sts., opposite Oriental Hotel, SAN FRANCISCO.
Manufacturer of Brass, Zinc, and Anti-Friction or
Babbet Metal Castings;
CHURCH AND STEAMBOAT
BELLS,
TAVERN AND HAND BELLS AND GONGS,
FIRE ENGINES, FORCE AND LIFT PUMPS,
Steam, Liquor, Soda Oil, Water and Flange Cocks, and Valves of all descriptions, made and repaired. Hose and all other Joints, Spelter, Solder, and Copper Rivets, &c. Gauge Cocks, Cylinder Cocks, Oil Globes, Steam Whistles,
HYDRAULIC PIPES AND NOZZELS
For Mining purposes, Iron Steam Pipe furnished with Fittings, &c. Coupling Joints of all sizes. Particular attention paid to Distillery Work. Manufacturer of "Garratt's Patent Improved Journal Metal."
☞ Highest Market price paid for OLD BELLS, COPPER AND BRASS. ☜ 6tf

Pacific Mail Steamship Co.
The following Steamships will be dispatched on the following named days.


February 28th—COLORADO.....Capt. Jas. T. Watkins.
Connecting with HENRY CHAUNCEY, Capt. Gray.
From Folsom street Wharf
At 11 o'clock A. M., punctually to the hour,
For Panama.
Passengers will be conveyed from Panama to Aspinwall by the Panama Railroad Company, and from Aspinwall to New York in the splendid steamships of the PACIFIC MAIL STEAMSHIP COMPANY.
Steamers of this line will be dispatched the 10th, 19th and 30th of each month When these dates fall on Sunday, the steamer will leave on Saturday preceding.
Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.
Departure of 19th connects with French Trans-Atlantic Co's steamer for St. Nazaire, and English steamer for South America.
Departure of 10th connects with English steamer for Southampton, and steamer running to Guayaquil, touching at Tumaco, the port of the new mines, and P. R. R. Co.'s steamer for Central America.
Cabin passengers will be berthed through. Baggage checked through—100 pounds allowed each adult.
An experienced Surgeon on board. Medicine and attendance free.
These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.
For merchandise freight apply to Wells, Fargo & Co.
For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff strees.
OLIVER ELDRIDGE, Agent.

Mining and Scientific Press
JOB PRINTING OFFICE,
No. 505 Clay street, corner of Sansome.

Stock Certificates of all kinds embellished with wood cuts and electrotype engravings. We devote special attention to the execution of all kinds of work required by Mining Companies, Machinists and Manufacturers.

ENGRAVED TO ORDER.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.
DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st

Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors. | SAN FRANCISCO, SATURDAY, MARCH 3, 1866. | VOLUME XII. Number 9.

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A. W. HALL'S DRY PULVERIZER.

The accompanying engraving represents a novel mill for pulverizing ore to an impalpable powder in a dry condition; and from the reports of its practical operation where it is now in use, at the New York Quartz Company's Works, 48 East Twenty-sixth street, New York, it appears to be a success.

The general design of the machine is, to pulverize ore, or other material, in an air-tight chamber, and separate the fine from the coarse by blowing it out into a receiver, by means of a fan blower. In this way the fine particles, as fast as produced, will be carried off, leaving only the coarser particles, to be further operated upon by the machine.

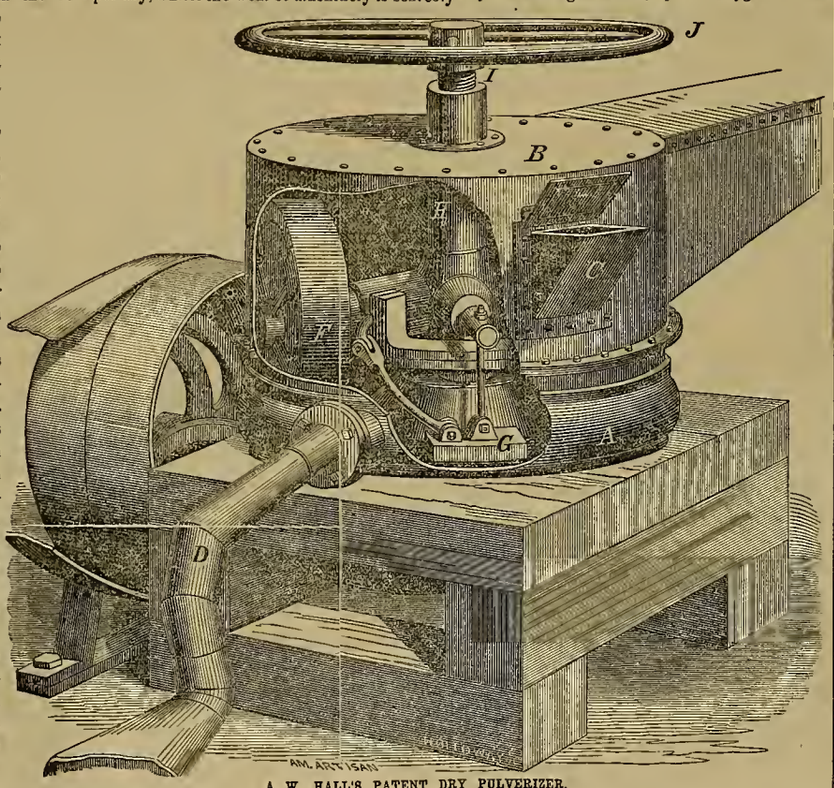
In this machine the Chilian wheels and the Spanish arrastras are employed in an ordinary cast-iron pan. The crushing surfaces of the wheels and arrastras are made convex, with a corresponding concave valley in which they travel, the working surfaces being of Franklinite iron. A dome, B, of sheet-iron, is made to cover the crushing and pulverizing apparatus, and secured to the flange of the pan, allowing space for the machinery to revolve. The material to be crushed is fed into the machine through the hopper, C, which is provided with two doors, one only of which is opened at a time to prevent the escape of the air and dust. The air passes from the blower through the tube, D, and enters a pipe, A, which surrounds the lower part of the pan. From this pipe there are thirty or forty five-eighths-inch holes leading into the pan, directly under the crushing wheels, which conduct the air in jets, and stir up the ore, and constantly keep the coarse separated from the fine powder, which is carried out through the spout, E. The receiver into which the dust is carried should be so large and so high as to allow the dust to settle and not be carried off.

The wheels are moved by means of bevel-gearing connected with the upright shaft, H, shown by part of the dome being broken away, which carries around the wheels, while they are free to rise and fall without cramping. This is effected by a double funnel-shaped hole through the centre of the axle, while the arms which bear against the axle are secured to the shaft.

The hand-wheel, J, bears against a rubber spring, I, which can be screwed down to increase the pressure of the wheels when desired, thus enabling the operator to gauge the crushing power of the wheels to correspond with the driving power of the engine.

The general features of this process of crushing and separating ore are applicable to the ordinary stamp-mill which has been patented by the same inventor, and was practically demonstrated by him in Colorado Territory in 1860.

The power necessary to drive one of these mills, including blower, will not exceed five horses. It will crush the hardest rock to absolute flour, at the rate of two-and-a-half tons per day, whilst the wear of machinery is scarcely



A. W. HALL'S PATENT DRY PULVERIZER.

perceptible, the only parts liable to wear being easily replaced.

A company is now being formed to use these mills for crushing barytes as a substitute for white lead, also felspar as a fertilizer, and to manufacture the machines for pulverizing gold and silver ores.

Persons wishing to purchase the patent for the State of California, for the use of the atmosphere as a separator of pulverized ores, either in the stamp mill or the one represented in the cut, or obtain any information concerning the invention, can address A. W. Hall, patentee, Tarrytown, N. Y.

While workmen were recently engaged in fixing up the Pacific Mail Steamship Constitution, lying at Mare Island dock, they found in her hulk a piece of a sword fish's sword stuck into the hard timber to the depth of several inches. The fish probably mistook the vessel for a whale.

ANOTHER MINING SCHOOL.

We took occasion, on Monday last to visit the Laboratory and Lecture Room, recently fitted up at the College of California, at Oakland. The laboratory is provided with a furnace and all the necessary appliances and fixtures for the accommodation of students in chemistry and assaying. We alluded last week to the delivery of the introductory lecture, by Prof. Blake, upon the subject of "Science and Scientific Schools, in their relation to Mining, Agriculture and the Kindred Arts." We had the pleasure, on Monday of listening to the introductory lecture to the chemistry course, by the same gentleman, upon "Oxygen." The subject was handled in a familiar and interesting manner, and fully illustrated by the usual experiments. This series of lectures will embrace incidentally the principal applications of chemistry in the arts and in metallurgy, and will be illustrated throughout by experiments.

The lectures on Mineralogy and Geology will be partly illustrated by the collection of the college, and that of the director, recently increased by the arrival of his collection from the East. The following is a general outline of the course: Common Minerals and the rocks which they form. Principal Ores of Iron, Copper, Lead, Silver, Gold, and other metals; their varieties, appearance, and methods of distinguishing them. Gems and Ornamental Stones. Historical Notice of the use and purposes of Geology; Geology a History; The succession of Life upon the Earth; Coal Formations; Movements of the Earth's Crust—Volcanoes, Earthquakes; Mineral Veins, their variety and origin.

On the subject of Mining, an introductory lecture will be given on "The Necessity of Education to a Mining Engineer." The general course will embrace: The Irregular Distribution of Ore in Veins; examples from the principal mines of the world; Association of Minerals and Ores; General study of Mining Plans, with a view to the proper opening and development of Mines; Timbering of Mines; Ventillation; Drainage; Hoisting; Mills for Working Ore—their construction, cost, and management; crushing, stamping, grinding and amalgamating machinery; concentration of ores, etc.

This course of instruction will be known as the "Department of Science and Arts of the College of California," and will be under the immediate direction of Prof. Wm. P. Blake, a gentleman in every way fully qualified to fill with credit such an important position.

For the Colorado.—Fourteen former residents of El Dorado Cañon leave this city today by the Los Angeles steamer, *en route* for the Cañon. Twenty-five tons of supplies left for the same destination, by a sailing vessel, a few days since, and more will soon follow. Among the party leaving, as above, are several connected with the Colorado Mill Company. These parties will start up the mill again immediately after their arrival, having made a contract with the Techatticup Company, for crushing their rock, on a percentage of its yield. This rock is known to be rich. This and that from the Queen City mine was the rock from which the large amount of bullion was taken to which we alluded some weeks since, as the first bullion from El Dorado Cañon.

Mr. Hazen Kimball, a well known artist of this city goes down on the steamer, and will visit the principal localities along the Colorado, for the purpose of taking sketches, which he will subsequently produce on canvass. Mr. Frank S. Alling, who holds the appointment of Postmaster at El Dorado Cañon, also goes down on this steamer. He informs us that he expects to be in regular receipt of the mails from this city by the first of July next.

Some of the principal merchants of San Francisco have made arrangements to ship a large quantity of goods to Callville, where proper storehouses will be erected, and at which point traders from Salt Lake and intermediate points, also from Western Montana and portions of Nevada and Arizona can be most conveniently supplied with goods of every description, at more reasonable rates than they can be obtained through any other channel. This supply will be constant, and must prove a great convenience to the vast extent of country intervening between the Rocky Mountains and Sierra Nevada; and by it San Francisco will lay the foundation of a business from which she must eventually reap immense commercial advantages.

It is easy to say, "Know thyself," but who is to introduce you? Most people go through life without making the advantageous acquaintance in question.

Grief knits two hearts in closer bonds than happiness ever can; and common sufferings are far stronger links than common joys.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

BY W. A. GOODYEAR.

[continued from page 114.]

To find the surface of revolution generated hy the curve in revolving about the axis of x.

Denote this surface by S.

The general formula is $\frac{dS}{dy} = 2\pi y \frac{ds}{dy}$.

From (25) $\frac{ds}{dy} = \pm \frac{a}{y}$. Therefore,

(32) $\frac{dS}{dy} = \pm 2\pi a$. Integrating (32), we have

(33) $S = \int \pm 2\pi a\, dy = \pm 2\pi a y + C$.

The arithmetical value of the integral in (33), taken between the limits $y = 0$, and $y = a$, is $2\pi a^2$. This is the surface generated hy either of the two branches of the curve which lie on the same side of the axis of y. The total surface generated is, then, $4\pi a^2$ = four circles with radius a.

To find the volume of the solid of revolution generated by the curve in revolving about the axis of x,

Denote this volume hy v

The general formula is $\frac{dv}{dx} = \pi y^2$.

Now, $\frac{dv}{dy} = \frac{dv}{dx} \times \frac{dx}{dy}$. Therefore,

(34) $\frac{dv}{dy} = \pi y \sqrt{a^2 - y^2}$. Integrating (34) we have

(35) $v = \int \pi y (a^2 - y^2)^{\frac{1}{2}} dy =$

$$-\frac{\pi}{3}(a^2 - y^2)^{\frac{3}{2}} \times C.$$

Taking the integral between the limits $y = 0$ and $y = a$, we have the whole volume of the solid generated by either of the two branches of the curve which lie upon the same side of the axis of y, which is $\frac{\pi}{3} a^3$. The total volume generated hy the curve, is then $\frac{2}{3} \pi a^3$ = a hemisphere, whose radius is a.

To find the radius of curvature for the tractory,

Denote the radius of curvature hy r.

The general formula is

$$r = \frac{\left\{1 + \left(\frac{dx}{dy}\right)^2\right\}^{\frac{3}{2}}}{\frac{d^2x}{dy^2}}, \text{ and}$$

in using this formula, it is proper to give to the radical in the numerator the same sign as $\frac{d^2x}{dy^2}$ has, so that r may be always positive. Doing tbis, and suhstituting the values of $\frac{dx}{dy}$ and $\frac{d^2x}{dy^2}$ from (3) and (21), we have

(36) $r = a \frac{\sqrt{a^2 - y^2}}{y}$.

To find the evolute of the tractory.

The evolute is the locus of the center of curvature. From the manner in wbich the general formula for the radius of curvature is obtained, we know tbat if x' and y' be the coördinates of the center of curvature corresponding to the point x, y of the original curve or involute, then the two following equations are true, viz.:

(37) $y - y' + (x - x')\frac{dx}{dy} = 0$;

(38) $1 + \left(\frac{dx}{dy}\right)^2 + (x - x')\frac{d^2x}{dy^2} = 0$.

Now, $\frac{dx}{dy}$ and $\frac{d^2x}{dy^2}$ are known in terms of y: Hence, in (37), (38) and (18), we have three equations, between whicb, if we eliminate x and y, we shall obtain a fourth equation, expressing the relation between x' and y', which is the equation of the evolute. This we proceed to do.

Substituting in (37) and (38) the values of $\frac{dx}{dy}$ and $\frac{d^2x}{dy^2}$ already known, these equations become, respectively,

(39) $y - y' \pm (x - x')\frac{\sqrt{a^2 - y^2}}{y} = 0$, and

(40) $1 + \frac{a^2 - y^2}{y^2} \mp (x - x')\frac{a^2}{y^2\sqrt{a^2 - y^2}} = 0$.

Simplifying equation (40), it becomes

(41) $\sqrt{a^2 - y^2} = \pm (x - x')$, or,

(42) $x = x' \pm \sqrt{a^2 - y^2}$.

Substituting the value of $\pm (x - x')$ from (41) in (39), the latter becomes

(43) $y - y' + \frac{a^2 - y^2}{y} = 0$. Solving (43) with respect to y, we have

(44) $y = \frac{a^2}{y'}$, therefore,

(45) $\sqrt{a^2 - y^2} = \sqrt{a^2 - \frac{a^4}{y'^2}} = \frac{a}{y'}\sqrt{y'^2 - a^2}$

Substituting this value of $\sqrt{a^2 - y^2}$ in (42), it becomes

(46) $x = x' \pm \frac{a}{y'}\sqrt{y'^2 - a^2}$. We have now in (44) and (46) the values of x and y in terms of x' and y'.

Substituting these values in (18), we obtain

(47) $x' \pm \frac{a}{y'}\sqrt{y'^2 - a^2} =$

$$\pm \left\{ \frac{a}{y'}\sqrt{y'^2 - a^2} + \frac{a}{2} \log_e \frac{a - \frac{a}{y'}\sqrt{y'^2 - a^2}}{a + \frac{a}{y'}\sqrt{y'^2 - a^2}} \right\}$$

Removing the parenthesis from the second member of (47), and cancelling the equal terms with like signs upon opposite sides, we obtain

(48) $x' = \pm \frac{a}{2} \log_e \frac{a - \frac{a}{y'}\sqrt{y'^2 - a^2}}{a + \frac{a}{y'}\sqrt{y'^2 - a^2}}$

$$= \pm \frac{a}{2} \log_e \frac{y' - \sqrt{y'^2 - a^2}}{y' + \sqrt{y'^2 - a^2}}$$

which is the equation of the evolute. Equation (48) may be put into the form

(49) $y' = \pm \frac{a(1 + e^{\frac{2x'}{a}})}{2e^{\frac{x'}{a}}}$, Moreover, (49), by a very simple change of form, becomes

(50) $y' = \pm \frac{a}{2}\left(e^{\frac{x'}{a}} + e^{-\frac{x'}{a}}\right)$ whicb is the equation of two equal common catenaries, one upon each side of the axis of x, and having their vertices respectively at the points $y = a$, $x = 0$, and $y = -a$, $x = 0$, tbe one above the axis of x being upright, and the one below it inverted. (See Todhunter's Analytical Statics, page 201.)

D' Alembert is, therefore, right in saying that the evolute of the tractory is the common catenary, in spite of the assertion upon page 93 of the Quartz Operator's Hand-Book. As to the remark tbat the equations of the tractory and catenary are essentially different, it is very true they are. But this fact alone is not sufficient (as it is there assumed to be) to enahle us to decide, or even to guess, beforehand, what the *evolute* of the tractory may or may not he. It is the general *rule* and *not* tbe exception that a curve and its evolute are essentially dissimilar to each otber. The cycloid is an exception to this rule. Tbe tractory is not, as I have shown.

[To be Continued.]

[Written for the Mining and Scientific Press.]

Electricity the Cause of Earthquakes.

BY W. WADSWORTH.

Before discussing the above proposition—using the plural—we will endeavor to define what electricity is.

We believe it to be a fluid, exceedingly subtle and elastic, more so tban any of tbe known gases; in its motions as rapid as light, and like heat, may be either active or latent; when active, sometimes visible; when latent, invisible, and is a principal agent employed by Diety in producing some of the most wonderful phenomena of nature—and among them, earthquakes.

Books have taugbt us that there is a positive and a negative terrestrial electricity. In all our varied experiments we have never been able to discover but one. We might as well say that heat and cold are both heat, only that the one—heat, is positive; and cold, negative. *Plus* and *minus*, are terms better adapted to tbe conditions of terrestrial electricity. The earth is one vast reservoir of latent electricity; and all bodies connected with it, unless acted upon by local excitants, would contain just their share of latent electricity—no more—no less. The electricity of tbese bodies would then be neither plus nor minus. But suppose one of these bodies to be insulated from the earth by wbat electricians recognize as a non-conductor; now, if with a common electrical machine, we charge this insulated body with more than its natural quantity, it is then plus, just that quantity, and the whole earth apart from it, becomes minus just tbat quantity; but if by a conductor the connection between the insulated body and the earth is renewed—the equilibrium is restored, and neither can be said to be plus or minus.

By latent and active electricity, we mean that, the electricity held by a body insulated and charged highly, or plus, if no conductor approach it, is as perfectly invisible as though tbe body had only its natural share—neither light or heat is evolved; and this is latent electricity. Now let another body—if not also plus—approach the body which is insulated and plus, and electricity in sparks or a continuous stream of flame passes from the latter to the former, evolving both light and heat; and this is active electricity.

Electricity may be latent in the earth or the clouds, and be wholly invisible; but let it pass through the air—a non conductor—and it becomes active, and is the "lightning;" thunder being only the noise produced by its passage through or along a non-conductor; we would not advert to this, which every school-boy is supposed to know, only that we may have occasion to connect the simple fact with our explanation of the rumblings attendant upon earthquakes.

We started with the proposition that the earth was one vast reservoir of latent electricity, liable however to have its equilibrium disturbed in places by local causes; when this takes place, one portion of tbe earth may become largely plus in quantity, and this necessarily gives us another portion as largely minus. Tbat this is the case is quite clearly demonstrated in tbe "thunder storm," whicb—tbrough the agency of clouds—conveys the plus electricity of one portion of the globe and deposits it in the "lightning" upon another—which is minus; or the clouds may be minus, and passing over a district of country largely plus, the "lightning" may pass from the earth to the clouds, as several well-authenticated instances clearly prove.

We might enumerate several of tbe causes that tend to disturb the equilibrium of the earth's electricity, producing in one portion a vast excess over another, thousands of miles distant; but it seems unnecessary to go into elaborate argument to prove what no one doubts. We would however in this connection remark, that, a recent writer on the subject of the Atlantic telegraph, gives it as bis opinion that, to insure perfect success, a return cable to the point at which the battery is applied will be found necessary, for the reason that, suppose tbe battery be applied in Ireland, and reliance is placed upon the waters of tbe ocean for the return current; now if the two countries should happen to be at all times exactly in equilibrium there would be no difficulty; but suppose the American side happened at the time to be largely minus, the entire charge from the European battery would be absorbed by the minus of tbe American side, there could then be no return current, and imperfect working or total disappointment must ensue.

We present the argument here only as another proof showing the now very general belief among electricians that, different countries of the earth possess at times a greater proportion of the earth's electricity than others, though directly connected by water, a very good conductor under ordinary circumstances, though not equal to a metallic one.

We will now examine some of the phenomena of the earthquake, and then see if there is any other agent than electricity, that can possibly produce them all. One fact has been very generally overlooked by writers on the causes and effects of earthquakes, and that is, the occurrence of the shock at *all places at the same instant of time*. No matter if the shock be felt along the earth's surface a distance of four thousand miles in all directions, all places in a line directly north or south feel the shock at the same instant, as the records of its occurrence have always shown, whilst places to the east or west of the same line report the same instant of time, making the proper allowance for difference of longitude.

Now there is no power on earth known to man, that can possibly produce this instantaneous shock to all places within the circle of its influence, but electricity. Sane writers speak of the "earth-wave," and an "ocean-wave," produced by earthquakes. There are no continuous waves, other than the sudden shock or tremor, either upon land or water, except such as are purely local, caused by the direct upheaval and fracture of districts of country in the line of the greatest shock, and these produce the only rocking or waving motion to which the term wave, can be aptly applied.

Vessels at sea feel the shock, and all at the same moment of time though thousands of miles apart; there could be no "water-wave" that could do this; and further, vessels totally becalmed seem to feel the shock more severely than though they were at the time upon a rough sea, and yet not the slightest appearance of a wave is produced upon the calm sea; and in either case the shock is described invariably, as like one that might be expected had the vessel struck upon a rock, and in no wise like the effect produced by striking a heavy sea or wave.

A part of Lisbon bordering on tbe sea was sunk by an earthquake and never came to the surface again, whilst a still larger part was overwhelmed by a tremendous ocean wave that rolled in upon the doomed city. The waters first receded solely from the lifting up of the earth beneath, when on suddenly settling back to and even below its original position, the sea flowed in far beyond its former boundaries causing tbe destruction that is recorded of it; and this is the only kind of *wave* properly so-called, resulting from earthquakes.

We are now ready to assert our belief that earthquakes are caused solely by the instantaneous passage of immense accumulations of electricity from portions of the earth whicb are largely plus, to others which are minus, and in its passage traversing the best conductors presented; and tbese without doubt are the great metallic ore-veins of the earth. The first, immediate effect of its passage is the shock that is felt simultaneously on land and sea, throughout tbe entire extent of its influence. Its secondary and local effects are as varied as tbe diversified conditions of the earth along the route of its transit would be likely to cause. The former, can be well compared to the shock the physical frame of man or animal feels on receiving a powerful electric discharge from a battery; whilst the latter are of an entirely different character, and will be alluded to again, after we present an experiment or two so completely analogous to that of electricity traversing the earth's metallic veins, as to prove to our satisfaction, tbat in it lies the true cause of earthquakes.

We will take a clay pipe-stem the substance of which is a non-conductor; into one end run a bit of iron or copper wire half-way through, then turn the open end up and fill in one-fourth of an inch with powder mixed with a little iron filings, insert the other wire down to the powder, now lay it upon a table and

send even a light charge from an electrical battery through the wires, and the powder will be ignited and the tube burst into fragments. Now instead of powder take powdered rosin or sealing-wax, and the result is the same as before though attended with no apparent combustion of the rosin or wax; but a remarkable fact connected with this experiment is, that, instead of an explosive or inflammable substance we substitute one which is neither, such as dry earth, clay, sand or powdered glass, and the explosion seems equally violent.

Let us extend the experiment by placing upon a table, from one side to the other, several sections of wire or any good conductor and bringing the ends within a quarter of an inch of each other; now cover the spaces and the adjacent ends of the conductor with different earths having different degrees of compactness; covering some with weights, and in every respect varying their conditions as much as possible; now send a strong charge of electricity through the line formed of conducting and non-conducting substances, and the latter will be blown up, scattered, cracked, and the weights raised for an instant only to fall back to their original position, no two being affected alike but all of them earthquakes in miniature, and these without calling to our aid the powers of explosives or pent-up steam or gases, except such as may be the result of an instantaneous action of the electric fluid upon the substances it encounters in its passage; and these substances need not as we have shown, be either explosive or inflammable.

Now mining experience in California has shown us that metallic veins are not always continuous; but in many places broken or disjointed, and this feature doubtless pertains to all the great metallic ore-veins of the earth, and intervening, between the ends of these disrupted veins are substances that compared to the veins themselves are non-conductors. These breaks or chasms in the regular veins are doubtless sometimes of great extent, and the passage of the electric current through them causes the infinite variety of upheavals, rollings and rockings of the earth adjacent to and above them.

This doubtless is the real reason why one place of only limited extent, seems more violently agitated than another near by, though apparently in the direct route of the electric current. In one part the fluid traverses a nearly perfect conductor, and here the disturbance is but slight; but let it be compelled to leap the chasm that was made through and deep below the conducting vein, when the Golden Gate chasm was formed and we hear the rumblings of the earthquake and San Francisco feels the shock, and so of other places situated on or near any of these dislocations.

We intended to have shown what connection volcanoes have with earthquakes; but we have already greatly exceeded the limit usually allowed to writers, who are able only to interest the few.

Little Children.—Bless the little children! Who does not love to hear their sweet voices ring merrily and sweetly out under the clear and open sky? If there is reserved for human life a joy more exalted than any other, it is that of witnessing and mingling in the innocent enjoyments of children. So nobody has said, "beware of that man who does not love children." The noblest minds that the world has ever witnessed, have been delighted with the frolics and amusements of children. The great Duke of Wellington is often referred to as an example in this respect. It is recorded that when the veteran Blucher once looked upon a large collection of children, assembled at St. Paul's, in London, despite of his attempted forbearance, the big tear drops trickled down the cheeks of the hardy warrior until he was completely unmanned. The great Burke, whose mighty mind swayed senators at his will, was accustomed, in his hours of leisure, to take an active part in the amusements of children: lying down upon the carpet, rolling over and tumbling about with them like a very child himself.

Children are human flowers! When cares crush the spirit and labor wearies the body how refreshing the smiling looks, the bounding step and the joyous laugh of the little ones as they come rushing forth to meet you on your return from your field of labor, your counting-house or your office! Care and weariness are alike forgotten, while joy beams forth at the sight of these beautiful human flowers. Misfortunes, disappointments and treachery would sour the sympathies of the soul; while mildew would gather thick upon the face of man's existence were it not for these beautiful, infantile human flowers springing up everywhere in all the pathways of human life!

A child thus defines gossip: "It is when nobody don't know nothing, and somebody goes and tells of it."

There were enlisted during the war 186,057 colored troops.

From Our Regular Correspondent.

Editors Press: Though my observations in this county have not been so extensive or so thorough as I should have been glad to make them; still in my hasty trip I have collected some facts which I think will probably be of interest to the readers of the Press.

The gold quartz mines of this county, with the exception of those in the Volcano and Pine Grove districts, noticed last week, are situated principally on the "Carson lead," otherwise known as the great "Mother vein" of the State, which consists of a principal ledge, flanked by a series of subordinate, parallel ledges, running through the country in a northeasterly and southwesterly direction and occupying the line of contact between the ordinary slate formation of the country on the western, or foot-wall side, and a narrow belt of "greenstone," apparently volcanic, which forms the eastern or hanging wall. The subordinate veins are wholly in the slate, or greenstone, as they happen to lie to the eastward or westward of the principal lead.

The main Carson ledge varies in width from three to thirty feet, and in dip, (to the eastward, in all cases), from thirty-five to fifty degrees from the perpendicular.

The principal feature of this vein is the large size and steady character of the chimneys of paying ore, which, however, is generally of low grade—six to eight dollars per ton being considered a fair yield. The large size of the vein, and uniform character of the quartz, makes its extraction and working very easy and economical. The subordinate veins vary more in the character and richness of their ores, and are generally smaller, though in one case, that of the Keystone claim at Amador City, a ledge lying to the westward of the principal vein, is twenty feet in thickness.

I will notice by name some of the principal mines on this range, beginning with

THE SEATON MINE,

Better known as the "Drytown lead," situated on the "Mother vein," one and a half miles east of Drytown, this being the most northerly of the mines on this range that I visited. This mine is noted for having in the short period of twenty months from its first opening, paid over $100,000 in dividends; besides paying for the erection of a 40-stamp mill, and all its own expenses. It is owned by the Seaton Mining Company, one-half of the stock of which is held by Mr. Henning, the Superintendent, and most of the remainder by prominent San Francisco capitalists, a small portion being still held by the heirs of the late Hon. Geo. W. Seaton, the original proprietor of the mine. The width of the ledge, as far as opened, varies from nine to twenty feet—the paying portion being represented as averaging eight feet. The average yield of the quartz crushed during the past year, Mr. Henning assures me, is over $20 per ton; that average being much increased by a small layer of decomposed quartz of almost fabulous richness, which is found directly under the hanging wall of the vein, near the surface. The mine is opened by a tunnel for a distance of 400 feet along the vein, and at a depth of 183 feet from the surface at its northern extremity, at which point it is connected with the surface by a shaft. The mill of forty stamps, is run in winter by water-power, and in summer by steam; the power being furnished in the present season by a 40-foot overshot wheel, and in summer by an 80-horse engine of fine substantial workmanship.

Adjoining the claim of the Seaton Company is that of

THE LOYAL MILL COMPANY,

Consisting of 1,200 feet of the "Carson ledge." This company commenced work in September last on an extensive outcrop of mingled quartz and slate of varying richness, and over 100 feet in width. A stratum two feet thick, lying next to the east, or hanging wall, proved to be very rich, paying $75 to $100 per ton. On following this down a considerable distance, it entirely disappeared, and the miners came upon a horizontal surface of hard greenstone, like that forming the hanging wall of the vein. As the dip of this stratum was to the westward, instead of the east, as it usually is in this vein, the superintendent, Mr. James, came to the conclusion that the upper part of the vein had slidden down the hill on the surface of the greestone, and that the remainder of the vein would be found in its original position farther to the eastward. For the purpose of testing this theory, and prospecting the mine, he took possession of an old abandoned tunnel, which had been driven into the hill on the western side, for a distance of over three hundred feet, but which had been given up by the original projectors, on the slate in which it had being run changing into a hard greenstone. This tunnel he has pushed on to a distance of 350 feet. It will cut the ledge at a depth of 200 feet. They will probably have to drive this tunnel a distance of twelve feet further before striking the ledge, if it should be in the most natural and probable position at this depth. A shaft is being sunk for the purpose of connecting the end of the tunnel with the surface. It has reached a depth of eighty feet.

The company have a very fine 20-stamp steam mill, which, however, is now idle for want of quartz to supply it. Next southwest of the Loyal, is

THE HAZARD CLAIM,

Owned by Messrs. Flochart, Sugden, and others, of Amador. The vein is here only from four to five feet in thickness, as far as explored, which, however, is not to any great extent. The proprietors have an 8-stamp water mill. Mr. Sugden, who has charge of the mine and mill, assures me that the average yield of the quartz is from $10 to $12 per ton.

THE BUNKER HILL COMPANY

Are working a claim lying about a mile from the Hazard, on the same vein, which is here about three feet wide. It has been explored to a depth of 300 feet, and the rock taken out varies, according to the estimate of the superintendent, Mr. Palmer, from $26 to $50 per ton, averaging from $10 to $12. The mill is about half a mile from the mine, and consists of eight stamps, and sixteen of Knox's amalgamators, driven by water-power in winter and steam in summer. Mr. Palmer says the pans give excellent satisfaction.

The next claim upon which active operations are carried on is

THE SPRING HILL,

Situated at Amador City, and owned by Messrs. Hooper & Sons. This mine has been opened to a depth of 200 feet, and for a distance of 1,300 feet along the ledge, disclosing a fine well defined ledge of quartz, fifteen feet in thickness. I did not learn what proportion of this was considered "pay rock," but was told by Mr. Hooper that the crushings had yielded from $8 to $12 per ton. This mine has been worked for a long series of years, and is well and thoroughly opened. Both ore and water are hoisted in buckets by steam-power; not a single pump being in use in a gold mine in Amador county. The mill consists of thirty-one stamps and four of Knox's pans, for working sulphurets, the whole being driven by water-power in winter and steam in summer—the former being obtained from an overshot wheel of thirty-seven feet diameter, and the latter from a 60-horse power vertical engine of the walking-beam pattern.

Adjoining the Spring Hill on the south, is the claim of the

KEYSTONE CONSOLIDATED MINING COMPANY,

Mr. John a Faull, superintendent. The property consists of the Keystone and Geneva ledges, and the Keystone mill, the Geneva being an extension of the Spring Hill. The Keystone is a parallel ledge lying to the westward of the Carson lead, at a distance of about 100 feet, and being, therefore, entirely in a slate formation. The greatest depth to which it has been opened is 584 feet, the present working shaft being only 206 feet. The ore and water are now hoisted by horses, but it is intended soon to substitute steam, an engine having been used on the deepest shaft before it was closed for repairs. The vein varies in thickness from three to twenty feet, having an average of at least twelve feet. Mr. Faull estimates the average yield at $17 per ton up to this time. The company have a 20-stamp steam mill, to which they are adding five of Prater's Concentrators. These are being erected by Mr. Morgan Hungerford, of San Francisco, who was in Amador at the time of my visit. The mine and mill were formerly the property of Mr. A. H. Rose, at present State Senator from Amador county, from whom they were purchased by the present owners, who, I think, have made an excellent investment.

The mines now recognized as the most valuable of any on this range, are situated at the village of Sutter, two miles southwest of Amador, and four miles from this place. The principal of them is

THE EUREKA,

Or Hayward mine, owned by Messrs. Hayward & Chamberlain, famous as the deepest gold mine in the world, and the deepest mine of any character in California, if not in the United States, being worked to a depth of over 960 feet. This mine is situated on the main Carson lode, and is the richest location ever made upon it. The owners have two mills with an aggregate of fifty-six stamps, and usually clean up at the end of a two week's run about $20,000. The ore is transported from the hoisting works to the principal mill, on a railroad made of light T rails, laid on cross-ties, after the manner of an ordinary railroad. It is by far the most substantial and durable mining railroad in the State.

A late discovery in Sutter is known as

THE RAILROAD MINE,

Owned by Messrs. Belding, Downs and others of Sutter. The ledge is in a slate formation, and has been opened to a depth of 200 feet, and by drifts laterally a distance of 180 feet, disclosing a vein of stratified quartz of an average width of eighteen inches, showing much free gold, and which appears to improve as it goes down. The last crushing paid fifteen dollars per ton. At the time of my visit they were employed hoisting water by horse power, as the mine had been flooded by the late rains. The Lincoln and Mahoney are among the oldest and best paying mines in the State.

Sutter is regarded, and I think justly so, too, as the great center of quartz in Amador county, and the long experience and careful observation of those engaged in the business, has given them the reputation of an authority among their neighbors on all questions connected with quartz mining. One gentleman, the superintendent of one of the oldest mines in the place, assured me, very seriously, that he thought that, considering his long and varied experience, there was nothing left for him to learn in regard to "practical mining," though there might be something in regard to "prospecting" that he did not know. I took the liberty of inviting this gentleman to become a contributor to the Press, which invitation he very graciously accepted, and the readers of the Press may hope at no distant day to have laid before them an array of facts in regard to the practical working of quartz, which will be of incalculable value to the mining interests of the State.

Between Sutter and Jackson are several mines on the same range, the principal of which is

THE ONEIDA,

At present owned by Messrs. Morgan, Dickerson & Co., and superintended by a Mr. Pringle. This mine has been worked since 1851. Two shafts have been sunk to the respective depths of 350 and 400 feet, and steam hoisting works erected on both. Both are now, however, closed for repairs, and a new shaft has been sunk, some distance to the northward, to a depth of 110 feet, from which rock is hoisted at present by horse power. In the old shafts the vein was from six to fourteen feet thick, but in the new shaft a drift has been run for a distance of thirty feet from the shaft, in the direction of the foot wall, without striking it. The mill is driven by steam, and consisted at the time of its purchase, of twenty stamps, to which the present proprietors have added as many more, and an Excelsior Grinder and Amalgamator, for working the sulphurets which are believed to be very rich. It was expected to start the works in a few days after the date of my visit.

The principal mine at Jackson is

THE CONEY,

Owned by Mr. Leonard Coney, of Jackson, and Biglow Bros., of San Francisco. It has been opened to a depth of about seventy-five feet, though the lowest working level is only about sixty. The vein is from four to twenty-seven feet in thickness, and the rock thus far has averaged eight dollars per ton. It is believed to be upon the same vein as the principal mines of Sutter and Amador. The proprietors have erected a substantial steam mill of eight stamps, with two of Prater's concentrators, and the same number of Knox's pans. Both machines give good satisfaction.

Adjoining the Coney, on the northeast, is

THE BLUE JACKET CLAIM,

Consisting of 800 feet of the same ledge, owned by Messrs. Little, Dunning & Burwell. It has been prospected by means of an open cut, and is found to be over twenty-two feet wide, the cut being of that width, in quartz all the way, and no signs of the walls yet. The quartz is somewhat decomposed, and is readily taken out. It has yielded thus far an average of five dollars to the ton, by a barbarous method of crushing, adopted in the only custom mill in the place. This is

THE KEARSING MILL,

Of four stamps and a grinder, driven by water power. The whole machinery is very imperfect, but as it is the only custom mill in town, it has all the work it can do.

West of the Coney and Blue Jacket, and on a parallel ledge, is the famous

HINCKLEY CLAIM,

Owned by Mr. T. Hinckley, of Jackson. This ledge has only been opened to a depth of seventy feet, but it has yielded over $13,000, of which 10,000 has been clear profit, the quartz paying on an average forty-five dollars per ton. At a distance of 127 feet from the main shaft another hole has been sunk, from which very rich quartz has been taken, proving that the chimney extends that distance, if not further.

Besides these, several minor claims are being prospected in this vicinity, all of which show more or less gold, so that we may soon expect to see this place take rank among the most important quartz mining towns in the State.

D.

Jackson, Amador Co., Feb. 1, 1866.

SALES OF THE WEEK
BY THE S. F. STOCK & EXCHANGE BOARD.

Monday, February 26.

AFTERNOON SESSION.

4 shs Crown Point at 1030 per foot, s 3.
8 shs Yellow Jacket at 430 per foot.
1 sh Yellow Jacket at 425 per foot, s 10.
1 shs Yellow Jacket at 435 per foot.
5 shs Yellow Jacket at 440 per foot, b 30.
1 sh Yellow Jacket at 425 per foot.
4 shs Alpha, G. H., at 262½ per foot, b 3.
8 shs Alpha, G H, at 260 per foot.
4 shs Alpha O, H., at 262½ per foot, s 3.
5 shs Chollar-Potosi at 323 per foot.
10 shs Chollar-Potosi at 320 per foot.
2 shs Savage at 850 per foot.
1 sh Savage at 845 per foot.
1 sh Savage at 840 per foot.
36 shs Ophir at 420 per foot.
24 shs Ophir at 425 per foot, b 10.
4 shs Hale & Norcross at 1040 per foot, b 30.
2 shs Hale & Norcross at 1015 per ft, b 3.
6 shs Hale & Norcross at 1010 per foot, b 3.
8 shs Hale & Norcross at 1030 per foot, b 30.
100 shs Exchequer at 7¼ per share, b 30.
85 shs Exchequer at 7 per share.
10 shs Exchequer at 7¾ per share.
100 shs Exchequer at 7¼ per share, b 15.
40 shs Exchequer, at 7 per share, s 3.
60 shs Exchequer at 7¼ per share, b 5.
10 shs Exchequer at 7¼ per share, b 3.
5 shs Overman at 60 per share.
20 shs Overman at 60 per share, s 30.
10 shs Caledonia Tunnel at 3¼ per share.
1 sh Imperial at 122 per share.
6 shs Imperial at 122½ per share.
2 shs Confidence at 75 per share
33 shs Fireman's Fund at 123 per cent.
Amount of sales..... ...$119,655 25

Tuesday, February 27.

15 shs Savage at 845@850 per foot.
3 shs Savage at 820@830 per foot; s 30.
6 shs Savage at 850@855 per foot, b 30.
12 shs Chollar-Potosi at 330@335 per foot.
8 shs Hale & Norcross at 1002@1075 per ft.
4 shs Hale & Norcross at 1075 per foot, s 3.
43 shs Yellow Jacket at 425@443 per foot
6 shs Yellow Jacket at 420@440 per ft. s 3.
15 shs Yellow Jacket at 425@440 per ft, b 3.
24 shs Ophir at 427½ per foot.
24 shs Ophir at 430 per foot, s 3.
9 shs Belcher at 195@200 per foot, b 3.
3 shs Belcher at 195@200 per foot.
3 shs Belcher at 205 per foot. b 30.
79 shs Imperial at 121@127 per share.
5 shs Imperial at 120 per share, b 5.
10 shs Imperial at 120 per share, b 10.
40 shs Imperial at 116@117 per share, s 3.
5 shs Imperial at 118 per share, b 30.
5 shs Overman at 65 per foot, b 20.
5 shs Overman at 64 per foot, s 30.
47 shs Overman at 65@70 per foot.
5 shs Overman at 70 per foot, b 30.
16 shs Overman at 69@70 per foot, s 3.
25 shs Exchequer at 7¼ per share, b 30.
20 shs Exchequer at 7 per share.
30 shs Real del Monte at 4@5 per share.
24 shs Confidence at 78@81 per share.
5 shs Confidence at 80 per share, s 5.
20 shs Caledonia Tunnel at 3 per share.
26 shs Bullion at 60@52¾ per share.
4 shs Cal Steam Nav Co at 56@56¼ per ct.

AFTERNOON SESSION.

1 sh Yellow Jacket at 440 per foot.
2 shs Yellow Jacket at 435@430 per foot.
2 shs Savage at 850@855 per foot.
6 shs Savage at 860@880 per foot.
3 shs Savage at 885 per foot.
2 shs Savage at 865 per foot, s 30.
3 shs Savage at 875 per foot.
4 shs Crown Point at 1085 per foot, b 30.
4 shs Crown Point at 1080 per foot.
4 shs Belcher at 195 per foot
2 shs Belcher at 200 per foot, b 10.
5 shs Chollar-Potosi at 335 per foot, s 30.
4 shs Alpha, G. H. at 265 per foot.
5 shs Overman at 71 per share.
15 shs Overman at 70 per share.
5 shs Overman at 69 per share.
5 shs Overman at 68 per share.
6 shs Bullion at 58@56 per share.
30 shs Bullion at 55 per share.
5 shs Bullion at 53 per share, b 30.
10 shs Bullion at 56 per share, b 10.
35 shs Exchequer at 7½ per share, b 30.
5 shs Imperial at 117½ per share.
30 shs Imperial at 116¼ per share, s 3.
15 shs Imperial at 116¼ per share.
5 shs Imperial at 116 per share, s 3.
20 shs Lady Bryan at 3 per share.
5 shs Real del Monte at 6 per share.
2 shs Confidence at 82 per share.
$10,000 Legal Tender Notes at 72¼c, s 30.
$2,500 Legal Tender Notes at 72¾c.
Amount of sales.....$138,969 00

Wednesday, February 28.

5 shs Chollar-Potosi at 340 per foot, b 5.
10 shs Chollar-Potosi at 340@350 per ft.
5 shs Chollar-Potosi at 350 per foot, b 20.
34 shs Yellow Jacket at 440@455 per ft.
9 shs Yellow Jacket at 440@445 per ft, s 30.
2 shs Yellow Jacket at 445@452½ per ft, s 5
1 sh Yellow Jacket at 450 per foot, s 10.
1 sh Yellow Jacket at 455 per foot, b 30.
1 sh Yellow Jacket at 455 per foot, b 10.
2 shs Hale & Norcross at 1200 per foot.
32 shs Daney at 6¼ per foot.
2 shs Belcher at 205 per foot, b 30.
5 shs Belcher at 195@197½ per foot
1 sh Belcher at 200 per foot, b 3.
6 shs Belcher at 200 per foot, b 5.
17 shs Savage at 925@945 per foot.
6 shs Savage at 920@940 per foot, s 3.
5 shs Savage at 850 per foot, b 30.
1 sh Savage at 950 per foot, b 10.
6 shs Savage at 930@910 per foot, s 30.
12 shs Crown Point at 1020@1040 per foot.
24 shs Alpha, G. H., at 270@280 per share.
4 shs Alpha, G H, at 270 per foot, b 10.
50 shs Imperial at 114½@113½ per sh, s30.
40 shs Imperial at 115½@114 per share, s3
38 shs Imperial at 114½@114 per share, s 3.
10 shs Imperial at 114 per share, b 5.
25 shs Overman at 63@62 per foot.

REPORT

ON THE

Mining District of BATOPILAS, in the State of CHIHUAHUA, MEXICO.

[Extracts from a work now in Press in the Mining and Scientific Press Job Printing Office.]

(Continued from Page 117.)

SOME TECHNICAL EXPRESSIONS USED IN THIS DISTRICT.

BODOQUE—A sort of rotten veinstone, in which the native silver is found disseminated, either in very fine particles, or lumps and nails, or other fantastic shapes of larger or smaller size.
BODOQUE BLANCO—White chlorides of silver.
TIERRA ABODOCADA—Chlorides of silver.
PETANQUE—Black sulphides of silver in metallic form.
PASTA—A class of arsenical silver ore in metallic state.
GUIJA PIZARRA—Quartz (flint).
GUIJA MOLLAR—Rotten quartz.
ESPATO CALIZO—Calspar, (the principal matrix of the lodes.)
COPALILLO—A yellowish blende.
PLOMOSA—Lead pyrites, galena.
FIERROS—Arsenical pyrites.
BORRASCA—An earthy, generally soft part of the vein, which, in some particular veins, is harren, in otbers, extremely rich.
BORRA—Barren part of the lode.
OJO DE PLATA—Deposit of silver in the lode.
CLAVO DE PLATA—Chimney of silver in the lode.
ROSICLER—Ruby, or dark silver ore.
CARDENILLO.—Light red silver ore.
BOLA DE PLATA—Roundish shaped masses of native silver.
TEJOS DE PLATA—Pieces of native silver, generally found embedded in the borrasca.
TEPETATE—Rubbish stones.
GAMBUCINOS—Poor miners who hunt metal on their own account.

THE EXTENT—"PERTENENCIA,"

Of a Mexican mining claim is 800 varas (2,400 feet) in a longitudinal direction, measured on the lode, and 100 varas (300 feet) in width, counted on either side of the lode, according to option.

TRANSPORT ROAD FROM THE SEA COAST TO BATOPILAS.

The present regular monthly steam communication between San Francisco and the northwestern coast of Mexico, offering great facilities for communication with, and sending goods from and to the interior of that country, cannot fail to influence immensely the rapid development of those vast yet partly unknown mineral regions, from which, within a few years, an extraordinary stream of wealth must naturally emanate.

Batopilas, although lying in the centre of the high Sierra Madre, will still be destined, at some future day, to pour forth a not inconsiderable part of those treasures; and the question whether it may be reached within three or five days' travel from the nearest sea-port town will be of very little importance, inasmuch as those natural roads, already existing, are in a state quite sufficiently good for transportation.

Two starting points offer themselves from the coast, nearly equal in their advantages: First, the port of Mazatlan; second, the port of Guaymas.

Shipping goods, or mining materials, out by the way of the first, are re-embarked on board small coasting vessels to the ports of Navachiste, Babarrasa, or Playa Colorado, in the State of Sinaloa. The freight to either of these places is nine or ten dollars per ton of 2,000 lbs. From thence the packages—none of which must weigh more than 300 pounds, but better still of 150 pounds each—are transported over a good natural wagon road, through a level country, to the town of El Fuerte, distant about twenty-eight leagues, at a cost per carga of 300 pounds, of three to three and one-half dollars.

From El Fuerte, a sufficiently passable road for pack mules leads over the mountains to Batopilas, on which the general cost per carga amounts to from seven to eight dollars, the distance being probably seventy odd leagues, in a straight line.

The total expenses of transportation of goods from Mazatlan to Batopilas will, therefore, average eighty to eighty-five dollars per ton, in which the fees for commission, etc., are included.

The cost of shipping from San Francisco to Mazatlan, on board a sailing vessel, which generally runs down in from nine to twelve days' time, varies from seven to nine dollars per ton.

From Guaymas, schooners are running to the small ports of Ajiavampo and Santa Barbara, in the State of Sonora, charging freight at the rate of nine to ten dollars per ton. From there a good wagon road leads to the town of Alamos, distant about twenty-five leagues, to which place the general charge is from three to four dollars per carga, or about twenty-five dollars per ton.

From Alamos to Batopilas, over the same mountain road as the former, the distance is seventy-five leagues in a straight easterly direction, and the freight ebarge per carga is eight to ten dollars, or about sixty dollars per ton.

Batopilas is situated in about 27° 30′ North Latitude, and 107° 26′ West Longitude from Greenwich; distant from the Capital of the State of Chihuahua about 130 leagues in a northeast direction, from the town of Parral eighty leagues, and the same from the mining district of Refugio, to the South.

I will now, gentlemen, give you an outline history and description of some of the principal old "Bonanza" mines of the district, as well as such as have been worked in later days, referring you about their relative location to the accompanying map.

For many of the followiug notices I am indebted to the kindness of Mr. George Le Brun, Director of the mint in Alamos, an English gentleman, not only of the most honorable character, but also of such high scientific attainments that his name is looked upon as a *safe voucher*, not only over all Mexico, but also favorably known in Europe, who used to work, and actually still is doing so, various mines in Batopilas. Also to the communication on the subject hy Don Francisco Viniegra, a prominent resident of the district, and several others, and the very excellent and scientific notices of the district of the eminent German geologist and miner, Mr. A. F. Schleiden, which I had occasion to examine.

First of all ranks, undoubtedly, the great

"PASTRANA" MINE.

The lode runs in a spur from the "Cerro de Animas," with a general direction from southwest to northeast, with the medium dip of twelve degrees East.

From the very scanty remaining documents, we can only draw the information that this mine was first worked toward the end of the seventeenth century, and gave its first great "bonanza" of many millions of dollars in the early years of the last. This lasted without interruption for eighteen years, most of the time in the very richest metal, so that frequently over $40,000 in one week were realized.

We do not know the reason why it was finally given up, although there is a common saying among the mining population, that in a very rainy season, during a tremendous shower the water entered and filled the lower works so rapidly that the workmen employed in them then had not time to escape, and were drowned, leaving many of the pillars and galleries in rich metal. One of the pillars taken out in later years from the upper works, gave $40,000 in silver.

Certain it is that since then this water has not been cleaned out, although several parties afterwards undertook to do so, but failed for want of means. The depth of the mine is reported to be about 150 varas, of which about 70 remain inundated.

Between 1770 and 1780, one Ordoñez, and after him, others, extracted considerable riches from other parts of the vein, among which an enormous quantity of the very richest chlorides of milk-white lamas, which, for a long time, out of ignorance, was thrown away, yielded them a principal part.

Before these parties, however, another "bonanza" was taken out hy a Spaniard by the name of Serastegui, in a part of the lode known as the "Obra de Serastegui."

At the beginning of this century, one Blas Alvarez repaired another old shaft, and dedicated himself for several years merely to the extraction of the silver remaining in some of the former pillars.

The last capitalist who worked there, was Don Juan Nepomuceno Sanchez, who was then the administrador of the rich Marquis of Bustamante, and acknowledged to have been a miner of rare scientific attainments. He intended to take the water out of the old mine hy way of a deep shaft, and a windlass driven by mule power, some remnants of which are still visible. The expulsion of the Spaniards in 1821 put an end to this laudable enterprise. With this, almost every kind of work in Batopilas came to an end.

In 1859, Mr. George Le-Brun took hold of the mine, and began driving a tunnel from the southeast, with the view of striking the vein below the reported ancient works and draining them. With untiring perseverance he has continued this work up to the present day, having now accomplished about 240 varas in length, without, as yet, attaining the object.

Should a part of the old, vague reports prove true, as to the works being left in metal, another great "bonanza" will undoubtedly reward his well directed exertions.

The same gentleman, a few years ago, while engaged in the foregoing, entered another part of the mine, called "Tiro de Sanchez," and struck a thread which, in a very short distance, gave him about $46 000, although the said thread was no thicker than from a half an inch to three inches. This is a proof of the extreme richness of the "Pastrana" metal. There seem to enter quite a number of such threads, all of which contain more or less, and will pay for the working.

Mr. Le-Brun is actually again engaged working another thread in the same mine, and if the metal should run on only for some ten varas as that extracted for the past two weeks, it may also give him another handsome fortune.

Now, what riches must the main lode give, which is known, and visible in several places, to be six varas wide, and reported eight varas at the bottom of the old works? Its average width in the still accessible parts is from one to one and a half varas.

The owner of this celebrated mine is just now negotiating its sale in the City of Mexico and Paris, with a flattering prospect of realizing a large sum for it. I am given to understand that he asks for about one half of the shares $300,000.

Adjoining this, and, in fact, laying on the same vein, to the north, we come to the

LA "CATA,"

Also owned by Mr. George Le-Brun. In this mine laying in the same favorable mineral ground, the lode divides itself into three chambers of an average thickness of three-fourths of a vara, which seem to be extremely rich in sulphurets. Evidently, it has also been worked a great many years back; and, in one of the chambers, at least, some 70 varas in depth. The still accessible works extend also over a considerable length. It is not known who were the original workers, but it is evident from the nature of the former that they must have taken out from them great amounts of silver.

Don Nepomuceno Sanchez worked the mine for several years for account of the Marquis of Bustamante, and extracted a considerable bonanza, part of the time in solid silver, as several of the old men, still living, who worked under him, assert that it was, in places, four inches in thickness. After him, a Mexican gentleman, by the name of Don Marcos Viniegra, worked it for a time, and also got very rich returns. The accidental destruction of a viaduct which ran along one of the upper openings, allowed the water to rush in freely, filling up a great part of the mine, and finally obliging him to quit it. He left there, in paying metal, several of the lower levels towards the south, and on the eastern branch of the vein.

Mr. Le-Brun, in 1860, took the water out of the middle branch works, and found in parts some very rich ore. He also intended to drain the former; but happening at the time to lose a large capital by the failure of a house, he was compelled to desist.

A few weeks ago, he again put a few workmen into a part of the western branch, where he intends making a cross-cut to a promising by-vein, and got into very fair prospects. Also, in another place above, in the centre branch, the latter are becoming excellent, and should the metal continue in downward tendency, there is a good hope that rich returns will reward his perseverance.

The circumstance of the hill to the north being as yet perfectly virgin, and throughout of superior mineral appearance, gives great weight to the "Cata" claim to rank among the very first mines in Batopilas.

To the west of this, about 200 yards distant, is found the now celebrated mine

"ARBITRIOS."

This mine, since the last two years, became the property of an American Company, incorporated in San Francisco. In its days of glory, it undoubtedly formed one of the galaxy of others which, by their bonanza, gave their owners extraordinary riches.

It must, to all appearances, have been abandoned for upwards of a hundred years. Not a single document exists at present relating to its former returns. A just conclusion as to the enormous masses of silver that came out of this mine may be drawn from the contemplation of some of its still accessible upper works, in places hollowed entirely to the height of fifty or sixty feet. Old reports still floating in the district corroborate the statement that the "Arbitrios" gave great masses of perfectly solid silver; and Don Juan de Escudero, in his work, says: that he heard from old men that it gave only a little less than the "Pastrana," which, in its first bonanza, was computed at nearly twenty millions.

The reason of its abandonment is of course lost to us. Very likely the same cause that acted on the "Pastrana" may have done so here. It is well known that a mine with large openings once left, although but for a very short time, will rapidly fill up with rain water, which naturally drains towards the lower works, filling these and preventing its rehabilitation.

The mine is reported to be about 100 varas deep, of which some 50 are filled up with rain water and rubbish.

A so-called "sacobon" (tunnel) was commenced in 1820 by Don Juan Nepomuceno Sanchez, who had the greatest faith in the mine, in order to facilitate its draining and cleaning. His object was prevented by the expulsion of the Spaniards. Had he succeeded in his enterprise, he could only have gone about midway of the bottom, whereupon shafts would have been indispensable.

The pillars of the upper works having mostly all been thrown down by the gambusinos, on account of their great richness, caused these works to fall in, thereby closing and destroying them; yet, it is supposed that the lower works will, in parts at least, be found open, and some of the remaining pillars in paying metal.

The company at present working it, intend to take the rainwater out by means of force-pumps, and, when down to the bottom, sink through the intervening barren section of the lode, where they are confident of striking again into the same deposit of silver which formerly made the "Arbitrios" so famed. The works are so far advanced, that the company entertain the well justified hope of soon being compensated for their exertions.

"THE RONCESVALLES."

located on the same vein as the former, towards the S. W. It shares an equal fate with it, in regard to the scantiness of documents relating to the state of its works and amount of silver produced. A lawsuit was commenced in 1727 by one of its owners, relative to the extraction of water from an adjoining claim, which stopped, for the time being, all work on it. It is reputed to have been for a number of years in Bonanza, during a part of which (nine months) it yielded over 3,000,000 of dollars. It is said to be one hundred varas deep, but is now entirely filled up with water.

The present owner had of late began to clean an old work of its rubbish, and found some very fine silver left in it; but want of greater means on hand prevented him from prosecuting it.

The location and mineral ground in which the lode runs, gives great hope of another "big strike;" but the drainage, by means of a tunnel, must be undertaken, and such could be done easily.

LA "NEVADA."

The traditions of the district say that the first foundation to it was laid about 200 years ago, by the accidental discovery, by an Indian swimming the river during a very high freshet, of a vein shining in beautiful white silver, as bright as snow, and caused the name *La "Nevada"* to be given it.

The place where it was found, was right on the eastern bank of the river; the sides of the lode, by some natural accident laid bare, were thickly covered with the glittering metal, and being followed up, soon entered into solid silver, until the water penetrated into the fissures of the vein, where it dipped under the bed of the river, and prevented the workmen from going any further downward, at that time not being provided with any of our modern appliances.

So, common report says, this place was actually left in silver, after giving a considerable bonanza. At our present day, it is only marked by a large piece of rock, jutting into the water, while the space intervening between the margin of the water and the mountain, rising up a few yards behind, is entirely filled up by sand—in fact, so obliterated, that nobody passing it would entertain the slightest idea of its ancient fame.

Numerous other rich lodes shortly after being discovered, it seems that the "Nevada" was then left; at least, there exist no documents proving the contrary; and by careful inspection I have not been able to discover any other works on it, except a small shaft, partly filled up, about 30 varas above the river. Yet there is no doubt it will, in all probability, contain riches as great as any of its far famed neighbors, the "San Antonio," the "Carmen" and "Cancio," that had the fortune to be extensively worked, and consequently paid many millions into the laps of their owners.

Its Location is on a hill, adjoining the one of the great "San Antonio Mine," only separated from it by an intervening ravine.

The Mineral Ground (panino), through which it runs, belongs, for a considerable distance, to the first order, slightly differing from that, and holding, in its precise nature, the middle between this and that of the "San Nestor" lode, lying on the same hill to the south.

The Rock forming it consists of syanitic porphyry, higher up blending with granite and diorite.

Its general course lays S. to N., 20° E., with a dip of 20° W. The distance from the town is about one mile in a N. E. direction, easily reached by a plain road along the river.

The lode shows itself well defined, of about one vara width on the surface. Numerous by-veins and threads *(Cintas e hilos)* cross or fall into it on various points; among the first, one called La "Purisima," at about 180 varas from the river, which has only a work of about eight varas depth in it, giving therefrom a rich pocket of silver.

Taking its, as yet, almost virgin strata, its location between the "San Antonio" and "San Nestor" mines, and other favorable points, into consideration, I am of the opinion that the *"Nevada,"* if once properly opened and prospected, will turn out great riches.

LA "CANDELARIA"

Lays next adjoining the former one, and bears in general the same character, which to mention would only be to repeat the same. Its course likewise is from S. to N., 15° W.

This vein was discovered about fifteen years ago, by a man named Nepomuceno Avila, who on a particular spot, about 200 varas above the river, took out about $12,000 in some twelve varas depth, in exceedingly rich bodoques *(chlorides)* and earth. Some sixty varas below this place, is a small work, consisting of two shafts of about ten varas depth, given by "Gambusinos."

The lode here shows itself divided into a number of small threads, all of which contain metal, and have been extensively bored into by those shrewd workmen. They tend to unite again to form a body some thirty varas below. Some five years ago, one Don Antonio Aguirre sank a few varas here, and drove a short gallery of three varas to the S. W., towards a cross vein, out of which he took about $3,000.

An English gentleman of this place, Mr. Wm. Hooper, of great enterprise and scientific attainments, undertook, four years ago, to drive a gallery or tunnel on the lode, about fifty yards lower down, but was prevented from executing his purpose by temporary want of means. Right at the entrance of the before mentioned small work, the "Candelaria" is likewise crossed by the La "Purisima" vein.

In the upper parts of the claim, enters another independent lode, which shows a very formal body of about one yard width, and is very fair looking, while the "Candelaria," at the work of Avila, and below where Mr. Hooper worked, attained the same average width near the surface.

The mine offers the same inducements for a regular work on it, and equal hopes with the "Nevada" of very rich returns.

THE "SAN ANTONIO."

This celebrated mine, generally looked upon as the second leading one in the District, lays about 300 varas to the N. E. of the "Candelaria," on the hill of its own name, and the east side of the river.

It is the property of an American company, represented by Mr. John Robinson, a gentleman of high respectability and valuable practical experience. Its general direction is from S. W. to N. E., with a dip to the W. of 20°.

The Rock forming the hill seems mostly to be a fine grained diorite, changing in the ravine, in places, into aphanite and granite.

Its first discovery was made about the beginning of the present century, by a poor laboring man by the name of Cristobal Perez. It is said that the native silver commenced from the very surface, and continued without interruption for the term of fourteen years, to a depth of 120 varas, by an average longitudinal extension of fifty varas.

In the still accessible parts, the metal appears to have been richest where stratified rock joined the diorite, here perfectly compact, and without crystals; while towards the north this offers all the characteristics of a conglomerate, that seems to have given much less. The amount taken out is reported to have been above *sixteen millions of dollars*, which were, however, spent by the old man and his two prodigal sons, one of which is still living, although poor, in a neighboring village.

The vein, averaging three-fourths of a vara in width, extended itself in places to fifteen feet, which were filled with the rich metal.

Since its abandonment the mine has filled up with rainwater and rubbish from the pillars, which were thrown down by the *Gambusinos* in some of the lower levels.

Mr. Robinson is now engaged in driving a tunnel, called the "San Miguel," which will eventually strike the lode below its old works, some of which, especially one towards the south called the "Santa Ana," is known to have been left in good metal. Another tunnel is being run for the same purpose, starting from the ravine.

LA "DOLORES"

Lays to the west of Batopilas, at the head of a small branch of the ravine called after it.

Its direction is southwest to northeast, with a dip of 22° West, and located throughout in first-class mineral ground. Of all the old bonanza mines in this district, this enjoys, probably, one of the first names in regard to the richness of its antlepile (terrero), which in itself proves the former richness of its metals.

[To be Continued.]

20 shs Overman at 65 per foot, b 10.
20 shs Overman at 65@63 per foot, b 5.
35 shs Overman at 63 per foot, b 7.
35 shs Overman at 60 per foot, s 30.
19 shs Bullion at 57½@59 per share, s 3.
14 shs Bullion at 60@59 per share, b 30.
3 shs Bullion at 60 per share.
20 shs Exchequer at 6¾ per share.
40 shs Lady Bryan at 3¼ per share.
10 shs Confidence at 90 per share.
30 shs Confidence at 90@87 per share, s 30.
10 shs Confidence at 10 per share, b 5.
25 shs N H & Mission R. R. at 40 per ct., b 3.

AFTERNOON SESSION.

5 shs Belcher at 205 per foot, b 20.
4 shs Belcher at 200 per foot.
1 sh Belcher at 200 per foot, s 3.
5 shs Belcher at 210 per foot, b 15.
10 shs Belcher at 205@207½ per foot.
1 sh Chollar-Potosi at 655 per foot.
5 shs Chollar-Potosi at 355 per foot, s 30.
3 shs Chollar-Potosi at 370 per foot.
12 shs Chollar-Potosi at 365 per foot.
5 shs Chollar Potosi at 365 per foot, s 3.
5 shs Chollar-Potosi at 362½ per ft, s 30.
2 shs Chollar-Potosi at 372½ per foot, b 20.
4 shs Hale & Norcross at 1150 per foot.
4 shs Crown Point at 1040 per foot.
12 shs Crown Point at 1040 per foot, s 3.
4 shs Alpha, G. H., at 260 per foot, s 3.
1 sh Yellow Jacket at 445 per foot, s 5.
1 sh Yellow Jacket at 440 per foot.
1 sh Yellow Jacket at 437½ per foot, s 5.
2 shs Yellow Jacket at 435 per foot.
8 shs Yellow Jacket at 430 per foot, s 3.
3 shs Yellow Jacket at 427½ per foot.
4 shs Yellow Jacket at 430 per foot, b 3.
1 sh Yellow Jacket at 420 per foot, s 15.
3 shs Savage at 915@910 per foot.
26 shs Confidence at 100@102½ per share,
20 shs Confidence at 102½ per share, s 5.
7 shs Confidence at 102 per share.
5 shs Confidence at 102 per share, b 5.
5 shs Confidence at 100 per share, s 3.
20 shs Exchequer at 7 per share.
20 shs Exchequer at 7¾ per share, b 30.
5 shs Imperial at 114 per share, s 5.
5 shs Imperial at 115½ per share.
5 shs Imperial at 115¾ per share, s 3.
15 shs Imperial at 116¼@117 per share.
10 shs Imperial at 115 per share, s 30.
5 shs Imperial at 117 per share, s 5.
2 shs Empire M & M Co. at 200 per sh.
7 shs Overman at 62½@62 per share.
8 shs Cal Steam Nav Co at 56¾ per cent, s 3
15 shs Cal Steam Nav Co at 56¾@57 per ct.
Amount of sales.....$191,042 00

Thursday, March 1.

4 shs Gould & Curry at 975 per foot, b 30.
4 shs Gould & Curry at 950 per ft, s 3.
4 shs Gould & Curry at 925 per foot.
21 shs Chollar-Potosi at 364@367½ per foot.
5 shs Chollar-Potosi at 372½ per foot, b 30.
12 shs Belcher at 210@227½ per foot.
12 shs Belcher at 220@225 per foot, s 3.
1 sh Belcher at 220 per foot, s 10.
3 shs Belcher at 225 per foot, b 3.
14 shs Savage at 930@960 per foot.
1 sh Savage at 925 per foot, s 3.
3 shs Savage at 910 per foot, s 30.
1 sh Savage at 940 per foot, b 30.
4 shs Hale & Norcross at 1150@1165 per ft.
120 shs Ophir at 445@435 per foot.
48 shs Ophir at 440 per foot, s 3.
12 shs Yellow Jacket at 436@445 per ft.
4 shs Yellow Jacket at 420@425 per ft, s 30.
20 shs Crown Point at 1040 per foot, s 3.
1 sh Empire M & M Co. at 200 per share.
2 shs Empire M & M Co. at 200 per sh, b 3
5 shs Sierra Nevada at 7½ per sh.
20 shs Exchequer at 7 per share, s 3.
30 shs Bullion at 60 per share, b 3.
28 shs Bullion at 59½@65 per share.
40 shs Confidence at 96@90 per share.
25 shs Imperial at 110@142 per share.
15 shs Imperial at 121 per share, s 30.
28 shs Imperial at 123 per share, s 3.
28 shs Overman at 62½@66 per share.
5 shs Overman at 66½ per foot.
350 shs Firem ans' Ins Co, 123¾@123 per cent

AFTERNOON SESSION.

3 shs Savage at 920@915 per foot.
1 sh Savage at 920 per foot, b 30.
2 shs Savage at 900 per foot, s 30.
4 shs Savage at 900@890 per foot.
3 shs Savage at 875 per foot, s 30.
1 sh Savage at 900 per foot, b 30.
20 shs Crown Point at 1040@1050 per ft, s 30
4 shs Crown Point at 1070 per foot, s 3.
12 shs Crown Point at 1060 per foot, s 30.
4 shs Crown Point at 1075 per foot, s 3.
4 shs Crown Point at 1080 per foot, s 3.
1 sh Belcher at 240 per foot.
1 sh Belcher at 240 per foot, s 3.
3 shs Belcher at 250@255 per foot.
10 shs Belcher at 260@265 per foot.
9 shs Belcher at 265 per foot, s 5.
1 sh Belcher at 270 per foot, s 3.
15 shs Belcher at 270@265 per foot.
7 shs Belcher at 270 per foot, b 5.
12 shs Gould & Curry at 900 per foot, s 30.
8 shs Gould & Curry at 925 per foot.
4 shs Alpha at 270 per foot.
4 shs Alpha, G. H., at 270 per foot, b 3.
2 shs Yellow Jacket at 425 per foot, b 5.
3 shs Yellow Jacket at 425@422½ per ft.
1 sh Yellow Jacket at 420 per foot, s 5.
2 shs Yellow Jacket at 422 per foot.
1 sh Yellow Jacket at 420 per foot, b 3.
12 shs Ophir at 425 per foot.
10 shs Confidence at 90@97½ per share.
7 shs Confidence at 100@101 per share.
6 shs Empire M & M Co at 200 per sh.
80 shs Caledonia Tunnel at 3¾ , er sh.
20 shs Imperial at 123½@125 per share.
10 shs Imperial at 124 per share s 30.
5 shs Imperial at 126 per share, s 10.
5 shs Overman at 72½ per sh, b 3.
24 shs Overman at 72½ per sh.
Amount of sales.....$181,920 00

Friday, March 2.

5 shs Savage at 900@925 per foot.
7 shs Savage at 940@950 per foot, b 30.
17 shs Savage at 925@930 per foot.
6 shs Savage at 945 per foot, b 30.
2 shs Savage at 930 per foot.
17 shs Yellow Jacket at 427½@435 per foot
8 shs Yellow Jacket at 440@435 per foot.
6 shs Hale & Norcross at 1250 per foot.
2 shs Hale & Norcross at 1190 per foot, s 30.
2 shs Hale & Norcross at 1225 per foot.
4 shs Gould & Curry at 925 per foot.
28 shs Bullion at 60 per share.
16 shs Bullion at 64 per share, b 30.
60 shs Exchequer 7 per share.
42 shs Confidence at 100@90 per share.
7 shs Overman at 72½@73 per sh.
3 shs Empire M & M Co. at 200 per sh.
200 shs Dancy at 7 per foot.
18 shs Belcher at 240@235 per foot.
72 shs Belcher at 230@240 per foot.
9 shs Belcher at 240@245 per foot.
12 shs Cal Steam Nav Co at 57 per cent.
$ 5,000 Legal Tender Notes at 73c, s 30.
$ 5,000 Legal Tender Notes at 73½
$25,000 Legal Tender Notes at 73½c, b 30.
$5,500 Legal Tender Notes at 73¼c.

Mining Summary.

CALIFORNIA.

NEVADA COUNTY.—The Nevada *Gazette* says that a lot of one hundred and ten tons of rock from the Tolbert ledge, crushed at the Oriental mill, was cleaned up on Saturday, of last week, and yielded between eleven and twelve hundred ounces of amalgam. We do not know how much the amalgam retorted, but even at four or five dollars an ounce, the yield would be large. The ledge is being worked steadily, and we understand that the owners purpose erecting steam hoisting and pumping works immediately.

The Grass Valley *Union* says that Frank Morse, who has long owned an interest in the Essex Ledge, on Mill street, has succeeded in buying out the conflicting titles to the claim, and now owns some two thousand feet; he intends erecting machinery upon it during the next month.

The Nevada *Transcript* says that a considerable amount of prospecting is being done about Rough and Ready, and no doubt rich ledges will yet be opened. The gold found in the channels in that vicinity is all wash gold and bears unmistakable evidence of having come from quartz ledges. These ledges will yet be found, and those who search diligently are bound in good time to be rewarded. The editor has seen some specimens from the Sherman ledge, which is located about three miles from Rough and Ready. The rock contains a large amount of free gold and rich sulphurets.

The Excelsior Mines.—It is stated that the snow is gradually disappearing from the hills in Excelsior. Several claims on Old Mau Mountain are being worked. The California mill is crushing ore from the mines of the company. The Eclipse mill will shortly start up. Many persons who left last fall are returning to the mines. The people are anticipating lively times in the spring.

Two hundred pounds of rock taken at random from the White Mountain lead, worked at the Mariposa mill in Virginia city, yielded $36 per ton. This rock was not selected, but was taken from across the width of the lead. Parties have offered to erect a 20-stamp mill for half the mine. Whether the owners will accept the offer remains to be seen. The lode is seventy five feet wide and well defined, and can be traced southerly three miles.

The Fredonia mine, situated in Meadow Lake district, has been sold recently to a New York company. The amount paid for the property was $20,000. The Fredonia is regarded as among the leading mines of the district, though not so well developed as a number of others.

PLACER.—A gentleman who has had much experience in hydraulic mining about Dutch Flat, expresses the opinion that good hydraulic claims can be found in the vicinity of Auburn, and is now on a visit there for the purpose of finding suitable ground upon which to commence work. The editor of the *Stars and Stripes* hopes his surmises may be correct and the undertaking a successful one.

The same paper adds that almost the entire section between Auburn and Grass Valley is a mineral region, traversed by numerous ledges, the golden richness of which will some day astonish many an "honest miner." Not many years hence we expect to see numerous quartz mills erected upon some of these ledges. Capital and more practical quartz miners is what we need in this section.

AMADOR.—The editor of the *True Press* has been presented with a beautiful specimen of gold-bearing quartz, by Ruffino Barni, agent for Jose del Carmen Rodriguez, owner of the celebrated "Cerro Rico" vein in this county. The specimen literally sparkles all over with gold and is the richest we have ever seen. The vein is situated on Bear Creek, about two miles from the town of Colorado, and eight miles from Mariposa. The editor thinks it is a fortune to its lucky possessor.

MONTEREY.—The Monterey *Gazette* says: We are repeatedly asked whether we bear anything more of the silver mines that were reported discovered some time since. We are not in receipt of anything definite yet. All that is known is that mines have been found, and there are parties now engaged in thoroughly prospecting them. Nothing definite has been developed as yet, but holders are very sanguine. We will wait and see, and we are assured by a gentleman largely interested and in every way reliable that should the result be that anticipated, *i. e.*, favorable, that he will lose no time in apprising us of the fact.

ALPINE.—We learn from the Silver Mountain *Bulletin* that the Mullan company, at Mogul, have struck some very rich rock in their claim, forty-seven sacks of which have been shipped to the Pioneer mill at Markleeville, to be worked.

We learn from the Monitor *Gazette* that the company owning the Lady Franklin, or Fremont lode, in Scandinavian Cañon, have got their ledge, and that it is all the most hopeful stockholder could wish. They have a mass of clay which proves to be rich in chloride of silver, and intermixed with fine looking quartz, showing ruby silver in remunerative quantities. They had previously passed through this, and thought it worthless. This occurrence shows the necessity of watching closely for new developments in our mines as the work of exploration proceeds—and the importance of having superintendents thoroughly versed in and educated to their business.

The workmen in the Morning Star tunnel struck through into their shaft a few days since, thus insuring good ventilation in the future progress of their work, and relieving the Company from the necessity and expense of artificial ventilation.

Quartz of a very rich character has recently been taken from nearly all tunnels that have tapped their lodes. The Wide West shows equally as good a ledge as the I X L or Buckeye No. 1, and has commenced a double shaft, well and securely timbered, which is now down fifty feet. The ore that has already been taken from the ledge is such as fully justifies the erection of steam hoisting works, which would greatly reduce the cost of working the mine.

VIRGINIA CITY AND VICINITY.

The gold Hill *News* has prepared a tabular statement of the number of men employed in the mines at Gold Hill and Virginia City, together with the quantity of ore mined daily. We give the statement as a matter of interest to many who would doubtless like to preserve statistics of this kind:

VIRGINIA MINES.

	No. men employed.	No. tons ore per day.
Ophir	45	30
California	6	10
Gould & Curry	245	215
Savage	176	90
Hale & Norcross	40	40
Chollar-Potosi	160	90
Total	662	475

GOLD HILL MINES.

	No. men employed.	No. tons ore per day.
Bullion	28	
Exchequer	10	
Alpha	50	75
Imperial	75	150
Bacon	30	75
Empire	49	65
Eclipse	27	40
Stevenson	27	20
Consolidated	38	100
Floda	16	60
Challenge	48	50
Confidence	41	55
Burk & Hamilton	9	10
Yellow Jacket	180	175
Kentucky	11	10
Crown Point	75	75
Total	724	960

Supposing this ore to be worth $30 per ton, the amount taken from the Gold Hill mines, daily, would amount to $28,000; per month, $864,000.

The amount taken from the mines of Virginia, per day, would be, by the same estimate, $14,250; per month, $427,500.

The total amount of ore taken out in Virginia and Gold Hill, per day, is 1,435 tons; per month, 43,050 tons. Value per day, $43,050; per month, $1,291,500.

In the above estimate no account is taken of any of the mines outside of the two cities of Gold Hill and Virginia. A large amount of prepatory work is now being done, by which, according to the *News*, the present yield will be very materially increased within three or four months. The *News* thinks that in view of these facts and the late important developments on the Comstock lode, that district is on the verge of a new era in a mining point of view.

The Virginia *Union* says that since the several rich strikes which have recently been made on the Comstock lode, work upon many claims which had been partially or entirely suspended, has now been resumed, and several parties who were formerly owners in the old locations made years ago, north of these recent reported developments, are looking up their old stock, which by force of circumstances had become "wild-cat" and considered worthless. Among these old companies we notice that the Indisputable Quartz Mining Company, whose claim was located in 1863, and incorporated in January, 1864, have commenced work on their claim by sinking a shaft east of E street and north of Taylor. Some fair-looking rock, showing free gold, has already been found at a depth of ten feet, where their ledge was struck. Considerable excitement is now brewing on account of this and other locations on this same line, which are being looked up by the former owners. As the old owners of these long-thrown-up claims are now becoming wide awake upon the subject, we shall expect soon to chronicle the successful opening of numerous valuable quartz veins within a stone's throw of our office.

Nine bars of bullion, worth $7,820 60, were brought into Virginia City on the 16th ultimo, from the Whitlatch claim, Reese River.

A new mill is being built in Mountain Wells District, some three miles from La Plata, by a company known as the Connecticut & Nevada. The main mill building will be forty-two by eighty-four feet, and will go into operation about the first of April. The company own a lead some ten feet in width, which will average $100 per ton, by mill process, as the rock assays from $190 to $300.

Some ore lately brought to Virginia City from the new Truckee District assays $138 per ton. The argentiferous galena ores of this district are very rich, and we hope that some profitable mode of working them will shortly be discovered.

The Winton Mill, Excelsior District, Nevada county, California, is running on ore from the Pacific mine. It yields about $70 per ton.

The Hale & Norcross shipped $16,000 in bullion on the 24th ult. The California Company are taking out a considerable amount of excellent ore from near the surface of their claim. In following the deposits down, bodies of ore may be found which have heretofore been missed by the drifts of the lower levels.

The Globe Mining Company, on American Flat struck another vein of water in their tunnel on the 20th ult. They supposed they must have cut through the casing into the vein. A stratum of water five inches deep, running the whole width of the tunnel was running out at the date of the latest report. The water alone, if it continues is worth a fortune.

Work has recently been again commenced on the old Indisputable claim. This claim was located in 1863. The Company are taking out ore for a mill test. The lode is said to be nearly fifty feet wide at a point where it is cut by the Best & Belcher tunnel. Parties owning in old claims located in the range of the late developments are beginning to prick up their ears and look after ancient stakes and landmarks.

The *Enterprise* has seen some excellent ore from the New Truckee district, which was taken to that office by Mr. P. Williams. In the series are included the Moonlight, 4½ feet wide; the Northern Light, 7½ feet; and the Morning Light, 12 feet in width. The ores from these leads assay from $138 to $600 in gold and silver. Mr. W. exhibited a specimen of argentiferous galena which assays at the rate of $80 per ton in gold. So large a per cent. of gold has seldom been found in argentiferous galena.

REESE RIVER.

Location of Reese River Mining Districts. Much attention appears to be directed, at the present time, to the outside districts, which recognize Austin as their commercial center. Throughout the entire of Central Nevada, a number of new mining districts have recently been established, which promise, in the course of time, to prove equal to most of the older localities, the permanency and richness of whose mines is well established. South of Austin there are several districts in the Toiyaba range. On the west side is Washington district; into which capital is now finding its way, but from which no bullion has yet been received. Directly opposite, on the east side of the mountains is Blue Spring district. It is claimed that there are quite a number of very important ledges already discovered in this district. A large Pennsylvania Company is located here. Immediately south and adjoining is the North Twin River district; and still further south is the well known Twin River district itself, where is located the famous Murphy mine. A large amount of Eastern capital has already been located here. Still south of here is the South Twin district, where it is said no less than four mills are to be erected the coming summer. From Blue Spring to Twin River is one continued series of mining districts; and within which it is expected not less than a dozen mills will be put up the coming season.

Some twenty miles west of the Twin River country is Union district, in which there is a 10-stamp mill in operation, and several others in process of construction. Ten miles further west is the Mammoth district. Here two mills are in process of construction. Several heavy Eastern Companies are located here. To the south of this point is San Antonio district, where a first class 10-stamp mill has recently gone into operation, and where the prospect is good for the erection of others soon. West of this is the Esmeralda country, which is well known to our readers. Still further south is the Silver Peak country which gives evidence of soon becoming an important mining point. A 10-stamp mill is already in operation there and a 40-stamp mill nearly ready to start; several others are in contemplation. Clarendon district is 150 miles southwest of Austin, and fifteen west of Volcano district. We gather the above from the Nye County *News*.

Very rich developments have recently been made in the Manhattan Company's mines on Lander Hill.

Hunt's mill, at Indian Springs, near the San Antonio district went into operation on the 2nd ult. It is crushing ore from the Lee mine, which is said to be very rich.

The Confidence mill, at last accounts was about ready to go into operation. The Company's mine was rapidly being freed from water, and will soon be in a condition to yield a harvest of rich ore.

The *Revielle* is informed that important developments are being made on the Murphy mine. They have recently taken out of different excavations from 250 to 300 tons of ore that will easily yield $250 per ton by mill process.

HUMBOLDT.

We learn, from the Humboldt *Register*, that the Arabia mines continue to improve as the work of prospecting progresses. Work continues on the Bald Hornet, and the ledge looks better than ever. A new ledge, bearing the same character of ore, has been discovered near the Gloriana Series—the ore being as fine as any ever found in the district. The Daisy, having turned out to entire satisfaction lengthwise and in width, is now having its depth tried. At Oreana, "everything is lovely and the goose hangs high."

Another mill is on the way to the East Range. M. Milleson has organized a company to open the Ne Plus Ultra mine, of Sierra district. This company, if we are correctly informed, is composed of solid men, who know something of what a good silver mine is, and that it cannot be properly opened in a day, and without expense.

ESMERALDA.

The editor of the Esmeralda *Union* has conversed with gentlemen, who are practical miners, from Bodie, Silver Peak, Hot Springs and other adjoining camps, and all appear to be sanguine as to the future of their respective localities. The Crescent company, at Bodie, is reported to have struck it very rich, but as we have not been able to ascertain the facts, we merely give the report as we have heard it. There is hardly a week but what large freight teams are passing through Aurora, loaded with machinery for some of the adjoining camps, which to us appears rather flattering. Nearly all the ledges in the immediate vicinity of Aurora are owned by incorporated companies, many of whom will not work the mines themselves, or allow others to work them. The editor is satisfied that a good portion of these mines will pay well if properly worked, and thinks there should be some provision made compelling them to work or abandon the mines.

SALT LAKE.—The Salt Lake *Vedette* says: We recently witnessed assays of ores from the surface of four ledges in Rush Valley, thirty-eight miles from this city, which yielded from one to six hundred dollars per ton. The ore was argentiferous galena. When we consider that millions of tons of such rich ores, easy of access, are the prize awaiting the capitalist, we can form some idea of the vast wealth and power that will at no distant day, be here concentrated.

SHADOWS OF LOVE.—Old men's lives are lengthened shadows; their evening sun falls coldly on the earth, but the shadows all point to the morning.

There have been many religious, but there is only one code of morals.

Experiments with Sodium-Amalgam in Gold Ores.

BY PROFESSOR SILLIMAN.

Having at my disposal a considerable quantity of California gold quartz from a mine in Calaveras county, I proposed to Mr. Wurtz to subject these ores to his method of amalgamation, under conditions subject to control, both as expressing the actual value of the material experimented on, as well as giving the value of the results and the loss in the process.

For this purpose recourse was had to the crushing and grinding apparatus of Mr. M. B. Dodge, in New York city, which, doing its work dry, gives unusual facilities for exactness. The details obtained in these experiments as to the degree of comminution reached by this apparatus have been very carefully worked out, but are reserved for a future communication, having no bearing on the subject now before us, although believed to be of value to the art of ore-dressing.

Suffice it to say, we were able by this means to obtain a fair average sample of the entire amount of the ore treated—a thing of the greatest practical difficulty, as every assayer well knows.

FIRST SERIES OF EXPERIMENTS.

One lot of very poor ores, being quartz, showing no gold, but some iron pyrites, and much ochrey matter, being crushed and ground, gave of fine dry powder 525 pounds.

Several assays of this lot, made both at the U. S. Assay Office by Dr. Torrey, and also by Dr. Buck, a private assayer of excellent repute, gave an average value to the ore, on the ton of 2,000 pounds—

Gold	$13 50
Silver	1 33
	$14 80

The whole of this lot of 525 lbs. or rather more than a quarter of a ton of pulverized ore, was then treated in a Freiberg amalgamating pan, provided with 16 mullers and driven by steam power. In this apparatus the mass was first made into a thin paste with water, and then treated for one hour with twenty pounds of mercury, to which four ounces of 4 per cent. sodium amalgam was added in four successive doses, applied at about equal intervals of time during the process, the alloy being dissolved in a small part of the mercury.

On cleaning up the results of the experiment, and obtaining as nearly as possible average samples of the waste, the entire amount of mercury used in the experiment was recovered with a loss of less than one 320th of the original quantity. On careful distillation (retorting) the button of bullion melted at the United States Assay Office gave 0.1925 of one ounce troy of a fineness of 827 thousandths and a value of $3,295, or calculated upon the ton of 2,000 lbs., giving a value per ton of $14.03 of precious metal.

The tailings from this experiment yielded to assay a mere trace of gold too small to be weighed.

The concentrated sulphids washed from the tailings, and representing a very small fraction of the whole original mass, gave as the result of two assays

	$1,183.73
	1,140 63
Average	1,162.18 per ton of 2,000 lbs.

On calculating the ratio of these concentrated tailings to the whole mass it was found to be as 1 to 1700, giving about 70 cents as the bullion value additional to the bullion obtained by amalgamation, giving a total of $14.73, and differing by only 16 cents from the entire chemical contents as shown by the average of several assays.

In other words, the sodium amalgamation had in this experiment saved, practically speaking, all the gold in an ore containing less than $15 to the ton.

SECOND SERIES OF EXPERIMENTS.

Another lot of ores from the same mine, known to be much richer than the first, was in like manner ground to a fine powder, and very carefully sampled in a manner to secure a fair average.

Repeated assays, both at the United States Assay Office and at the private office of Partz & Buck, fixed the value of this sample of about 80 pounds of powdered ore at $320 per ton, the range of difference being quite moderate. The assays gave respectively $293.63, $332.78, $296.37, $368.22, $306.20, $320.36. One anomalous assay of $445.70 was rejected, as having beyond doubt involved a pellet of gold, carrying the result much above average. With this exception, the average result of the value of the whole quantity is very closely $320 per ton of 2,000 lbs. of ore.

In treating this sample a different mode of experimenting was adopted.

A small rotating cask, capable of treating 10 or 15 pounds of ore, was arranged in imitation of the usual Freiberg Barrel. In operating on small quantities of ore (10 or 15 pounds, for example,) the ratio of loss and error is much higher than in treating larger quantities, as in the great processes of the arts. We did not expect, therefore, to obtain in this series of experiments results as closely approximating the assay as in the first experiment, which was made upon a scale equal to that of the quartz mill.

EXPERIMENTS.

1. To make a comparative experiment, showing the relative saving power of common quicksilver and of the sodium amalgam, 5 lbs. of the ore were treated for thirty minutes with 2 lbs. of common mercury, which gave per ton of 2,000 lbs.

	$118.80 or 37.12 per cent. of the av'ge.		
The tailings of this experiment panned by hand with 1 oz. of magnetic mercury yielded an additional quantity.	67.20 or 21.00	"	"
	$180.00 or 58.00	"	"

2. 10 lbs. of the ore were next treated in the same manner with 1 lb. of common mercury 30 minutes, and the tailings panned in like manner with 1 oz. of magnetic quicksilver, giving in all per ton $182.60 or 57.1 per cent.

3. 10 lbs. of the ore with 1 lb. of common quicksilver for 30 minutes yielded

	$191.80 or 60 per cent.	
Tailings treated for thirty minutes with 1 lb. of magnetic quicksilver (¼ oz. No. 2 amalgam) gave in addition	63.60 or 20	"
Total	$255.40 or 80	"

No appreciable loss of mercury.

4. 10 lbs. of the ore treated for 30 minutes with 1 lb. of magnetic quicksilver, (¼ oz. of No. 2 amalgam,) and the tailings, as in No. 2, treated in a pan with 1 oz. magnetic quicksilver, yielded in all $266.40 or $83.3 per cent.

No appreciable loss of mercury.

These experiments are still in progress, but the results show that with unaided mercury the gold saved is less than 60 per cent. of the whole quantity of gold known to be present. In one experiment less than 40 per cent. was saved, while by the aid of the amalgam of sodium the saving is increased to 80 per cent., or 83 3 per cent., or an increase of more than 20 per cent., leading to the reasonable expectation that in the large way at least 80 per cent. of the gold present in a given case may be saved, and in many cases, where the gold is coarse and free, that even better results than this may be attained. The first experiment detailed in which a different amalgamating apparatus was used gave results surprisingly close. I do not think the barrel as good a form of apparatus for this description of amalgamation as some one of the numerous forms of pan now in use. It was employed in these experiments simply because it was a convenient means of treating small quantities of ore in making comparative experiments.

Experiments in California, under my direction, have been set on foot upon a scale of magnitude adequate to test the value of this discovery in the metallurgy of gold in a satisfactory manner, the results of which may now be looked for at no distant day.

The action of the sodium in this case appears to be in a manner electrical, by placing the mercury in a highly electro-positive condition toward the electro-negative gold, seeming to give some reason for the term *magnetic amalgam*, adopted by Mr. Wurtz as the trade-mark of the alloy. The quantity of sodium is entirely too small to allow the supposition that it acts by its chemical affinities.

It is well known to chemists that the metallic sulphids are decomposed by amalgam of sodium, but no one supposes that an inventor could be found so quixotic in his chemical notions as to seriously propose the use of sodium amalgam as a means of effecting the reduction of the sulphids of silver, etc., since not less than one equivalent of sodium would be required to set at liberty one equivalent of silver.

The use of the sodium amalgam for silver amalgamation must depend, if it is found really useful in the large way in the silver reduction process, (which still remains to be proven,) upon a like power of electrical action to that seen in its action on gold, and also to the well-known power of preventing the granulation (flouring) of mercury, or of saving the mercury when thus changed. Indeed, there is good reason for believing that a most important part is played by the sodium amalgam in this last particular. The amalgam of gold or silver is very liable, as every mill-man knows to his loss, to granulate and disappear from the plates of the battery, or from the riffles, after it has once been formed. If this granulation takes place it is almost impossible, by the existing modes of amalgamation, to recover the minute particles which float off with the currents of water and are lost. The action of the sodium in recovering mercury which has passed into this condition is perhaps its most remarkable property.

It is vain to stick your finger in the water, and, pulling it out, look for the holes; and equally vain to suppose that however large a space you occupy, the world will miss you when you die.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

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Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the MINING AND SCIENTIFIC PRESS. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various papers and drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensues. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications filed in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra time involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, may employ us either by letter, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unequalled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously. When the invention consists of an improvement on an old known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: DEWEY & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos...	$10
On every application for a design, for seven years.....	15
On every application for a design, for fourteen years.....	30
On every application for a patent, for seventeen years...	15
On every caveat.....	10
On issuing each original patent.....	10
On filing a disclaimer.....	10
On every application for a re-issue.....	30
On every additional patent granted on a re-issue.....	30
On every application for an extension.....	50
On the grant of every extension.....	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C....	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No. 505 Clay street, corner of Sansome, San Francisco.

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1866 JANUARY 1st, 1866

Commencement of Twelfth Volume

—OF THE—

Mining and Scientific Press

Published Every Saturday.

The title of our journal is a truthful expression of its character.

It affords a class of progressive information to the Miners, Mechanics and Professional Men of the Pacific Coast, which cannot be derived from books, or other publications.

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The prospects of our journal are now brighter than at any former period. Our facilities for furnishing a valuable paper are constantly increasing.

Following are some of the many opinions generously expressed by our neighbors:

Editorial Expressions:

The publishers intend to make it the "Scientific American" of the Pacific Coast. Every miner should have a copy of it in his cabin, for it will be filled with useful information to the pick and shovel fraternity.—[Trinity Journal.

Should be taken by every man owning "feet" (and brains) in this State.—[Beacon.

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Every stockholder in different mines will find it will pay to take and read this mining journal.—[Contra Costa Gazette.

The PRESS is to the Pacific Coast what the "Scientific American" is on the Atlantic. It deserves its success.—[Aurora Daily Times.

It is fully up to the times, and furnishes the latest mining improvements and intelligence.—[Calaveras Chronicle.

Every miner should subscribe for the PRESS.—[Calaveras Chronicle.

It presents a channel through which all mining notices may be cheaply consolidated into one sheet for the convenience of all stockholders.—[Mountain Messenger.

We can give our testimony that it is always replete with useful and valuable information to miners and mechanics.—[Placer Herald.

It contains correspondence from different sections, giving accounts of new discoveries in gold, silver and copper, and should be taken by every person that wishes to keep well posted on the developments of our State and the Territories.—[Mountain Messenger.

With the last number is an index to the whole volume, most useful and valuable to those who keep files of that paper.—[Shasta Courier.

Prof. J. D. Whitney's address on Mining, is given entire. * * * We preserve the PRESS, and would like to have a full file.—[Napa Reporter.

The public should support the enterprise of the MINING PRESS, one of the best papers in the State, by a liberal patronage, as it is only by a system of legitimate reports that our mines can be favorably brought before men of capital below.—[Calaveras Chronicle.

Under the management of Messrs. Dewey & Co., the PRESS has been much improved in every respect. * * It deserves a liberal support.—[Virginia Union.

A good paper for this country.—[Humboldt Register, Nu.

Those who would have a good paper of this character, should subscribe now.—[Marysville Appeal.

It embraces one of the finest fields in the world, and seems to improve it. * * * It will be second to no scientific record now published on this continent.—[Los Angeles News.

A neat and useful journal. One of the most presentable and useful in the State.—[Sunday Mercury.

Such a journal has been needed on the Pacific Coast. The PRESS fills the bill.—[Reese River Reveille.

A splendid paper, and should have a good list of subscribers in prosperous Grass Valley.—[G. V. National.

We receive, regularly as clock work, this exceedingly valuable and interesting journal.—[Napa Reporter.

Interesting and important to miners and Mountain men. [Butte Record.

Friends pleased with our efforts in the publication of the PRESS can render us essential aid by furnishing correspondence and all important information which may come under their observation, and by calling the attention of their neighbors to the commendable features of the paper; the appreciation of which favors will be duly manifested by the constant improvement of our journal.

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W. B. EWER,.....SENIOR EDITOR.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited on all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

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Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. Elwin Davis, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:
Saturday Morning, Mar. 3, 1866.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

THE OIL PROSPECTS OF HUMBOLDT.—The Humboldt *Times* of the 24th inst., furnishes the following information with regard to the progress of the oil interest in that county: "The well of the Eel River Oil Company, on the farm of J. T. Barber, is down 145 feet, and the prospects of the company are looked upon as quite favorable. From the Bear River and Mattole districts, reports are also encouraging. The Jeffrey well, the Irwin, Davis, Yosemite, Annehogeau, Mendocino, East Fork Mattole, have also been heard from. No oil had been struck yet, but the work was proceeding with an energy which promised soon to release the oleaginous treasure from the bowels of the earth." In regard to the well of the Eel River Company, we have seen a letter the past week from one of the parties engaged in sinking the same, which stated that the well, at the time of writing, was 174 feet deep, with most excellent indications. The bore passed through the gravel into the sandstone at the depth of only ninety feet, when more than double that depth was expected. The geological indications of the Eel River valley are much more favorable for an abundance of oil and for flowing wells than any other part of Humboldt county, for reasons given in our issue of September 23d. This opinion appears to be fully endorsed by Prof. Wm. P. Blake, the Director of the Mining Department connected with the College of California, at Oakland, who uses the following language in his report on the Humboldt oil region, addressed to Col. S. G. Whipple, under date of December 14, 1866: "I must here call your attention to the possibility of getting oil from the top of the fissures under the *nearly horizontal strata* of Eel River valley. Possibly these upper strata may confine oil that rises from the more highly tilted and broken strata below, for I believe that the oil shales underlie the whole valley."

THE population of London is over three million, and every week two thousand are born and fifteen hundred die.

OVER 40,000,000 letters were received in the Chicago Postoffice, for distribution to other offices, the past year.

THE STATE CAPITOL BUILDING.

The State Capitol Building, at Sacramento, for the completion of which an additional tax bill has passed the Legislature, has so far progressed as to justify the hope of its completion in a few years; the structure also gives promise of being, when completed, one of the finest buildings in the world, and surpassed by none on this continent, but the Capitol at Washington. Some idea of its size and character may be found from the following items: It is over 300 feet front, including porticos, with center and end wings, and 76 feet from ground line to top of balustrade. The dome is 72 feet in diameter at its base, and with two stories of portico or tomhour, rises 216 feet from the ground line. There are twenty columns thirty-eight feet nine inches high, on the sides, rear and front; the latter supporting a tympanum on which are to be sculptured the figures of Mining, Commerce and Agriculture. There are also seventy-six pilasters, which form the division between the three stories of boldly arched windows, of which latter there are 172 in the building. The lower story, which forms the basement to the superstructure, has a sub-cornice and a full Corinthian cornice, which crowns the entire building—a girth of over 1,300 feet. The entire facade, capital, etc., are to be finished like the parts already completed, in beautiful white granite, from the slate quarries in the neighborhood of Folsom. The basement, or first story, contains the Supreme Court Room, and its adjuncts; besides offices for the Governor, Secretary of State, Controller, State Treasurer, Attorney-General, Surveyor-General, Public Instruction, etc., etc.—twenty-eight rooms in all, with all the minor appointments, and, like the two other stories, this is intersected by the center rotunda, and three large halls, sixteen feet wide. The second, or principal floor, which is reached by three ample stairways from the interior, and a noble structure of granite steps in front of the main portico, contains the Senate and Assembly Chambers, and State Library, each forty-six feet in hight, with galleries, and finishing with low domes, besides fourteen large rooms for the State officers. The third story has three large rooms for State Museum, and seventeen Committee Rooms.

The building has now progressed to the vault of the rotunda, or top of first floor, and what has been done in the ontlay of some $350,000, is a satisfactory evidence of the constant care and attention it has received from the Governor and Board of Commissioners. All the materials with which it is constructed are of the best kind and perfect in their finish and adjoinings. The whole structure will be entirely fire-proof, the floors being vaulted with iron and brick, and covered with marble and encaustic tiles. By the estimates of the present architect, Mr. Gordon Cummings, $1,012,838 are yet required to complete the structure, which may be accomplished in four or five years.

The bill which has just passed both branches of the Legislature, and received the Governor's signature, appropriates $150,000 per year until the structure is completed. There was considerable opposition to the bill on its first introduction; but its friends rallied promptly to its support, and secured its passage. The building, so far as completed, presents a truly beautiful appearance, and if finished after the manner and with the material proposed, it will be an ornament to the city of Sacramento, and reflect the highest credit upon the taste and enterprise of the Golden State.

FINE SPECIMENS.—We acknowledge from Mr. George Barrington the receipt of a fine specimen of cemented gravel, well sprinkled with gold, taken from the claims of Messrs. Neece & Pest, near You Bet. If we are not mistaken in the locality, we have a slight recollection of doing some pretty hard work on that claim in 1853–4 for very small pay. We are pleased to learn that the present proprietors are getting better paid for their labor than we did. We trust it may continue to pay, as it possibly will, for the next twenty years. A few tons of gravel, equally rich with the specimen before us, ought to be sufficient to satisfy the most avaricious of mortals.

MECHANICS' INSTITUTE.

At a regular meeting of the Institute, on Thursday evening last, it was voted to adopt the report of the committee recommending the purchase of the ground known as the "Hyde lot," on Post street, between Montgomery and Kearny streets, of Mr. Randolph, for the sum of $25,000. The lot is about 74 feet front on Post street by 85 feet in depth, on the east side, and 120 feet on the west, being of an irregular form, conforming to the peculiarity of the streets between which it is located. It is the desire of the Institute to dispose of its present building on California street, and immediately build a more commodious structure, such an one as is already greatly needed to meet the growing wants of the Institution. The meeting was largely attended, and a lively interest manifested throughout its proceedings, which lasted until about 11 o'clock. An adjourned meeting, to take further action, in accordance with the report of the committee, will be held this (Saturday) evening.

The Annual Election of Officers of the Institute takes place on Monday next, March 5th, between the hours of 12 M. and 9 P. M. The following tickets have been nominated, and a lively contest is anticipated:

Regular Nominations.	*Opposition Nominations.*
FOR PRESIDENT.	
H. J. Booth,	Charles M. Plum.
FOR VICE PRESIDENT.	
D. A. Macdonald,	A. C. Austin.
FOR RECORDING SECRETARY.	
Robert Riddle,	Jason B Pierce.
FOR CORRESPONDING SECRETARY.	
A. S. Hallidie,	A. T. Dewey.
FOR TREASURER.	
Edward Nunan,	Thomas Young.
FOR DIRECTORS.	
James B. Johnson,	Joseph McGill,
P. J. O'Connor,	N. W. Spaulding,
Henry Webb,	W. W. Hanscom,
John W. Farren,	Chas Elliott,
F. G. Edwards,	R. S. Eels,
James Spiers,	Hiram Rosekrans,
Wm. T. Garratt.	W. C. Pease.

A SINGULAR SPIDER.—At a recent meeting of the California Academy of Natural Sciences, Prof. W. P. Blake remarked that Dr. Jackson of Boston had recently described to him, by letter, a remarkable spider, brought by Dr. Wilder from Long Island, Georgia, and which is now attracting much attention from the naturalists of Boston. This spider is about as large as a Tarantula and lives on the pine trees. It spins both gold and silver-colored threads of great strength and brilliancy. Dr. Wilder wound out five (5) miles of golden-colored silk from one of the spiders, and quite a quantity of the silver-colored thread, and without injury to the spider. This thread looks on the reel like burnished gold. It is elastic, while the silver-colored silk is non-elastic and is used for the main stays of the web, while the gold thread fills in the rest of the web. Dr. Wilder has a lot of the spiders living in the Cambridge Conservatory, and many young broods in his room in Boston. The Dr. has made full communications to the American Academy, and to the Boston Society Natural History.

MINING ENGINEERS.—We would call the especial attention of our readers to the card of Messrs. GOODYEAR & BLAKE, which will be found in our columns to-day. These gentlemen are both personally known to us, and present testimonials of the highest character as to their qualifications and experience as civil and mining engineers and metallurgists. Being familiar with all the modern languages, parties not speaking English may be able to consult them with greater advantage and facility. They are prepared to make surveys and maps, to examine and report upon mining and other properties, to make plans and estimates, to superintend the construction of engineering works, and to transact any other business pertaining to their profession as civil and mining engineers.

A FACT is disclosed by a late report of the New York Inspector of State Prisons, that while all other occupations are represented in their great number of convicts, there is not a single printer.

THE Healdsburg (Sonoma county) *Standard* says there is not a rat in that burg.

MORE EXPERIMENTS WITH SODIUM AMALGAM. We have given, on another page, a detailed account of some experiments recently made by Professor Silliman, of Yale College, with regard to the economy of the use of sodium amalgam in saving gold from its ores. The paragraphs which we give, together with a lengthy introduction, was read by the Professor before the Academy of Natural Sciences, at its late meeting. The Professor also stated, at the same time, that the March number of the *American Journal of Science* would contain a still more detailed account of this valuable discovery. The high standing of Professor Silliman, as a chemist, renders the result of his investigations a matter of the first importance; and warrants the public in placing the utmost reliance upon the data and figures which he gives. The paper cannot fail of being read with much interest by all persons engaged in gold mining. The expressed opinion of the gentlemen, before whom it was read, was, that it was "one of the most practical and most interesting papers which had ever been brought before the Academy." The Professor awards the merit of this discovery to the party to whom it properly belongs—Prof. Henry Wurtz, of New York, who communicated the results of some preliminary experiments to him early in 1864. We shall allude to this matter further next week.

CALIFORNIA MADE BELLS.—The success with which Mr. W. T. Garratt, of this city, is meeting in the manufacture of bells, would seem to fully obviate the necessity of sending to the East for such articles. We examined a bell of his manufacture, a few days since, at his establishment, on Market street, which, for beauty and fullness of tone, and completeness of finish, is not surpassed by any imported bell which has ever been landed in California. Another interesting thing connected with this bell is the fact that the copper which has entered into its composition, was mined and smelted in California. The bell bears upon its surface, in raised letters, the following inscription: "Mined from the Union Mine; smelted at the works of C. T. Meader; cast by W. T. Garratt; presented by C. T. Meader." The bell weighs 800 pounds, and is a donation from Mr. Meader for use upon a school-house in Stockton. Mr. Garratt is prepared to cast bells of any weight which is likely to be called for on the Pacific coast. He has also devised a method of hanging bells, which possesses decided advantages over any other heretofore devised. The bell is securely held by a single bolt, which passes through the crown, and is held firmly to its place by two nuts. By simply loosing one of these nuts the bell can be turned so as to present any portion of its interior surface to the blows of the clapper, an advantage which many deem of much importance. This arrangement does away with the cumbrous and complicated attachment by which bells are usually secured to the crown.

We understand that but very few bells are now being imported, and purchasers would do well to bear in mind that there is now no necessity for such importation; and that by patronizing an enterprising California House, they may soon build up here a new and important branch of business, and keep much money at home. The bells cast by Mr. Garratt are fully equal in tone to any imported, and are warranted not to crack within one year; if by any chance they should do so, they will be recast without any expense to the purchasers. Any inscription that may be desired will be cast upon his bells, without extra charge and they will be furnished as cheap or cheaper than they can be imported.

ELECTION.—Adams Petroleum Oil Co., Contra Costa.—February 7th. Trustees: Alonzo Green. S. B. Whipple, Jns. T. Cruikshank. President, Albert Green; Secretary, Paul Neuman; Treasurer, Philip Wolf.

RECENT INCORPORATIONS.—Tear and Rip Copper Company; location, El Dorado county, Cal. Capital stock, $540.000, divided into 5,000 shares, $400 each. Trustees: W. Thompson, Jr., Henry Thompson, Richard Hammon.

RIPPON G. & S. M. Co., Silver Mountain, Alpine county.—Capital stock, $300,000, divided into 3000 shares, $100 each. [Corrected.]

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

San Francisco, Saturday Morning, March 3d, 1866.

The amount of capitnl offering for loan purposes shows no abatement, amply supplying tho wants of all classes who can furnish the requisito security. A fair demand prevails in bank circles, and choice names aro passing at 1@1¼ ₱ cent. per month, the lattor being the current rate for the usual discounts made. In the open market negotiations are effected at 1½@2 ₱er cent., according to the collateral offering.

Receipts of treasure from the interior and North const, since the date of our last referenco, amounted to $900,000. Bullion met with considerablo inquiry early this week, and sales of fine gold bars for the China market were made at 855@865, but the closing quotation is about 850. Silver bars rango at ¾@1¼ ₱ cent. premium.

City Railroad shares aro u shade firmer, in view of n probable increase in the future earnings of different companies. North Beach and Mission was sold at $49 per share, and is now held at $49. Central is inquired for at $60, and Omnibus can bo sold at $48 per share. San Francisco Gas is in request at $107 per share, and Spring Valley Water was sold at $60. Tho latter company will resume tho payment of dividends tho ensuing week, and probably continue them regularly hereafter. California Steam Navigation rose from 55½ per cent to 57, and closes at 56.

Insurance stocks are in rather less favor, and some have been freely offered recently at n decline from former quotations; Union is held at $113, Pacific at $164, and California Home at $100. California can be sold at $1,600 per share, and the Merchants Mutual at about $2,250. Fireman's Fund was dealt in at $123@123½, and the National (now) is inquired for at $78½ per share.

The Mining Share Market has exhibited more animation this week, and nearly every stock on tho list has been actively dealt in at enhanced rates. Advices from a number of promiuent claims are still favorable, and more money was actually earned in February than in any previous like period for six months past. If the present condition of several mines should continue no less flattering awhile longer, it will have an important influence upon the market value of all stocks.

Gould & Curry receded from $975 to $920, then sold at $925, and closed at $925 bid. The body of ore in the "2d Station" has now been traced n distance of some 25 feet laterally in the south drift, but no cross-cutting has yet been done. The company have accumulated a surplus, and a dividend may be looked for next month.

Hale & Norcross has materially improved, and small sales were made, advancing from $1,020 to $1,200, receding to $1,150, rallying to $1,180, and selling yesterday at $1,225@1,215. The lower floor of the vein in the 700-feet level shows a width of 25 feet of good ore in going north, and the pay portion has now been partially prospected a distance of 150 feet in length. The ore product of the mine is averaging 50 tons per day, including some 5 tons 1st-class ore. Receipts of bullion last month exceeded $36,000. The assessment of $50 per foot, levied January 29th, has been rescinded, and the company have now a surplus in their treasury.

Crown Point receded from $1,080 to $1,030, rose to $1,080, declined to $1,040, and was held yesterday at $1,100. During the week ending February 23d, 748 tons of ore were extracted from the mine. The north drift in the lower level is now within 20 feet of the north line, and no material variation has taken place recently in the appearance of the vein. The incline is down 20 feet from that level in a large body of excellent ore. Late crushings show an average of $45 @$48 per ton, and the company's receipts of bullion for the first three weeks of last month exceeded $100,000.

Savage has been dealt in to the extent of 185 feet, advancing from $835 to $890, dropping to $830, rising to $945, receding to $890, and selling yesterday at $930@950.

The product of the mine in February averaged, it is said, about 80 tons of ore per day, worth some $55 per ton, and the net profits are estimated at $58,000. The indebtedness of the company at the present time is about $20,000, not including the contracts for the new works, and $27,000 due upon the Minnesota mill. Most of the ore is now taken from the upper stations, the 5th level not having proven very productive. The main shaft has been sunk 40 feet (one-half the required depth) in the last two weeks. The drift running southwest from the bottom of the winze, to intersect the main shaft, has been run 60 feet, but some time will be required to make that connection, and open the new or 6th level. The prospecting so far, at this depth, is said to promise a good body of ore. The new shaft, E street, is down 230 feet, and 210 deeper will bring it on a level with the ore found in the Hale & Norcross mine, and 208 feet east of the line of the latter company.

Yellow Jacket has been active, and some 300 feet were sold advancing from $395 to $455, receding to $425, rallying to 442½, and then selling at $440@435. During the week ending February 19th, 657 tons of ore were extracted, and 394 tons were worked at outside mills, yielding $11,707.19, an average of $29.66 per ton. In the same period $16,800.67 in bullion was received from the company's mill.

Ophir steadily rose from $415 to $445, and then sold at $440@445. It is said that the reserve of ores and tailings on hand at the Reduction Works are worth some $90,000 net. Five new stamps and other improvements have been recently made to that establishment, giving it a reduction capacity of 750 tons per month.

Chollar-Potosi is in more favor, advancing from $322 to $370, and selling yesterday at $360@355. During the week ending February 23d, 785¾ tons of ore were sent to custom mills.

Belcher has improved a little, and some 100 feet changed hands, advancing from $195 to $270, and then selling at $265@225. Some favorable indications have been met with recently.

Alpha has been dealt in within a range of 280@257½, closing at $275. An assessment of $30 per share (120 per foot) was levied February 20th. Empire Mill and Mining is in more favor, advancing from $180 to $210 per share, closing at $210 bid.

Imperial declined from $123 to $114, rose to $126, seller 10, then sold at $126, and closed at $130. The yield of bullion for the month of February amounted to some $75,000. The "Imperial-Empire" shaft has attained a depth of 100 feet, and the old shaft has been sunk 46 feet from the bottom of the sump—in all 66 feet from the lower level. Preparations are being made to extract sufficient ore from the Holmes ground to keep the Gold Hill mill actively employed.

Confidence has been in favor, and some 500 shares were dealt in, advancing from $70 to $102, receding to $90, rallying to $101, and selling yesterday at $100@70. A very considerable body of good ore has been developed recently.

Overman has been more active, some 600 shares changing hands within a range of $55@72½, closing at about $70. An assessment of $15 per share was levied February 28th.

Bullion fell from 60 to 52½, rose to $66, and then sold at $62@$60. Exchequer was dealt in to the extent of about 800 shares, within a range of 6¾@7¾, closing at $7¾.

The aggregate recorded sales of Stocks and Legal Tender Notes, since Saturday last, amounted to $861,294 75.

Fluctuations in Leading Mining Shares for the past Six Months.

Name of Company.	Sept. 1st.	Sept. 10th.	Sept. 20th.	Oct. 1st.	Oct. 10th.	Oct. 20th	Nov. 1st.	Nov. 10th.	Nov. 20th.	Dec. 1st.	Dec. 10th.	Dec. 20th.	Dec. 30th.	Jan. 10th.	Jan. 20th.	Feb. 1st.	Feb. 10th.	Feb. 20th.
Gould & Curry.....per ft.	1,135	1,300	1,240	1,250	1,000	1,015	1,010	1,100	875	975	940	850	905	885	826	850	825	1,060
Ophir.....	280	385	415	340	515	380	425	392	340	370	260	360	370	345	325	400	435	448
Savage.....	1,300	1,225	1,215	1,225	1,075	930	800	765	625	670	660	900	830	700	635	830	920	900
Potosi.....	440	420	410	472	455	355	350	....	....	....	....	....	....	....	....	....	....	....
Chollar.....	475	455	450	500	480	370	375	308	270	240	130	225	175	139	221	295	278	322½
Hale & Norcross.....	480	520	550	750	475	325	305	205	165	150	170	125	280	240	315	825	940	980
Shoba.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Daney.....	43	40	40	35	30	15	10	15	8	....	....	....	....	....	....	....	8	....
Wide West.....	....	....	....	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Burning Moscow.....	23	20	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pride of the West.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bullion.....	160	....	125	126	125	70	62	57	38	35	32	22	37	33	52	62	62	64
Real del Monte.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Overman.....	190	135	170	175	150	100	95	62	42	43	23	35	65	41	36	52	50	49
Sierra Nevada.....	19	22	21	17	22	12	10	12	8	6¾	9	3	10	10	9	6	....	8
Yellow Jacket.....	1,420	1,460	1,405	1,345	1,110	720	780	670	620	535	235	425	530	410	370	465	407½	395
White & Murphy.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sides.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Uncle Sam.....	193	185	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Baltic.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
North American.....	24	16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Baltimore American.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mofones.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Antelope.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Napoleon.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacramento.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Utah.....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lady Bryan.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
Imperial.....	252	250	221	232	210	174	135	157	150	120	85	100	155	113	108¾	120	114	121
Crown Point.....	1,120	1,115	1,150	1,130	1,025	750	760	720	530	700	490	460	540	565	550	890	835	925
Belcher.....	876	900	910	876	630	400	485	400	300	265	245	160	175	145	220	195	160	180
Alpha.....	1,925	1,950	2,100	2,200	1,700	1,000	1,010	790	950	740	600	140	240	200	300	370	290	270

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths.....	$ 74¾	$ 75
Gov. Legal Tender Notes.....	73¼	73¾
State Bonds, 7 ₱ cent.....	86¼	89
San Francisco 10 ₱ cent.....	..	..
San Francisco Bonds, 1855, 6 ₱ cent.....	70	..
San Francisco Bonds, 1858.6 ₱ cent.....	67	..
Sacramento City Bonds, 6 ₱ cent.....	..	..
Sacramento County Bonds, 0 ₱ cent.....	53	60
Marysville Bonds, 10 ₱ cent.....	75	..
Stockton Bonds, 10 ₱ cent.....	60	65
Yuba County Bonds, 10 ₱ cent.....	75	80
Butte County Bonds, 10 ₱ cent.....	75	78
California Navigation Co.....	57	57¼
State Telegraph Stock.....	20	..
San Francisco Gas Co.....	106	108
Sacramento Gas Co.....	..	75
Spring Valley Water Co.....	60	60¼
RAILROADS.		
Sacramento Valley Railroad.....	..	..
Omnibus Railroad.....	48	50
Central Railroad Co.....	..	05
North Beach and Mission.....	48	49

MINING STOCKS.		
Ophir.....	$ 440	$ 445
Gould & Curry.....	925	940
Empire M. & M. Co.....	....	....
Sierra Buttes Quartz Co.....	....	....
Central.....	....	....
California.....	....	....
Savage.....	950	955
Chollar-Potosi.....	350	360
Hale & Norcross.....	1215	1220
White & Murphy.....	....	....
Sierra Nevada.....	..	10
Yellow Jacket.....	430	440
Overman.....	70	71
Cedar Hill Tunnel.....	....	....
Wide West.....	9	10
Crown Point.....	1085	1100
Antelope.....	....	....
Emeralda.....	1	5
Ætna.....	....	....
Real del Monte.....	..	15
Bullion, G. H.....	....	....
Buckeye.....	....	....
Dick Sides.....	....	....
Imperial.....	130	132
Alpha.....	270	275

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb.....	49@	55
do pickled ₱ lb.....	—@	—
do Oregon.....	35@	40
do New York, ₱ lb.....	50@	—
Cheese, ₱ lb.....	25@	35
Honey, ₱ lb.....	30@	40
Eggs, ₱ doz.....	45@	—
Lard, ₱ lb.....	@	28
Hams and Bacon, ₱ lb.....	26@	28
Cranberries, ₱ gal.....	1 00@	—
Potatoes, sweet, ₱ lb.....	8@	—
do Irish, ₱ lb.....	@	—
Tomatoes, ₱ lb.....	@	—
Onions, ₱ lb.....	@	8
Apples, No. 1, ₱ lb.....	6@	10
Pears, table ₱ lb.....	8@	25
Plums, dried, ₱ lb.....	@	—
Peaches, dried, ₱ lb.....	@	—
Oranges, ₱ doz.....	75@	1 00
Lemons, ₱ doz.....	1 00@	1 25
Chickens, apiece.....	87@	1 12
Soap—Pale & C. O.....	10@	12
Castile.....	14@	15

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	DAY OF SALE.
Arbitrias, Chihuahua, Mex.,	$1		Mar 29—April 9
Alpha, Gold Hill, Storey co., Nev.,	$30		Mar 24—April 24
Boston Copper, 50c			Mar 3—Mar 20
Bunker Hill C. G. & S. M. co.,	$1.50		Mar 23—April 4
Bullion			$10 00
Bacon M. & M. co			Meeting Mar 6
Consolidated Silver Hill M Co., Nov.,	$2		Feb 17—Mar 3*
Comet Petroleum co.,	30c		Mar 31—April 14*
Consolacion,	$1.25		Mar 31—April 15
Capital, Lander co., Nev.,	$5		April 3—April 19
Cassolli, Nevada co., Cal.,	$5		Feb 20—Mar 8
Cole, Storey co., Nev.,	$1		Mar 15—Mar 31
Chipiouca, Sonora, Mex.,	$5		Mar 14—Mar 26
Daney			Annual Meeting Mar 5
Evoca, Del Norte co., Cal.,	25c		Mar 3—Mar 19*
Evening Star, Humboldt co., Nev.,	50c		Mar 31—April 14*
Equality Copper co			Annual Meeting Mar 14
Emerald Copper,	$1		Feb 10—Feb 21
Franco-Americano, San Antonio, L. Cal.,	50c		Mar 17—Mar 28
Geo. Washington, Alpine co., Cal.,	$1.50		Ear 24—April 10*
Hale & Norcross			Meeting March 14*
Hanscom, Copper, Del Norte co.,	15c		Mar 31—April 14*
"I. X. L.," Alpine co., Cal.,	$2.50		Mar 5—Mar 19
Keokuk, Contra Costa co., Cal.,	10c		Mar 17—Mar 31*
Kearsarge			Feb 17—Mar 10*
Kentuck, Storey co., Nev.,	$7 50		Mar 6—Mar 24
Jewett, Storey co., Nev.,	$1		Mar 3—Mar 20*
Jeffrey Oil,	50c		Feb 26—Mar 3
Leland, Arizona,	5c		Mar 3—Mar 19*
Lady of the Lake, Arizona			Mar 3—Mar 19*
Libertad, Sonora, Mex			Meeting March 7
London Quartz,	50c		Feb 20—March 10
La Fernandez, Sonora, Mex.,	$5		Mar 1—Mar 15
Maggie, Lander co., Nev.,	$5		Feb 14—Mar 3
Morning Star, Alpine co.,	$1		Mar 3—Mar 19
Nonpareil,	$1		Feb 29—Mar 10
Oxford Bota, Esmeralda co., Nev.,	50c		Feb 17—March 3*
Providence, Nevada co., Cal.,	$1		Mar 17—Mar 31*
Planet, Copper			Meeting Feb 22
Patroclnia & Doloros, Chihuahua Mex.,	$2.50		April 1-April 10
Peninsula, Lower Cal.,	$5		April 3—April 14
Rodgers, Storey co., Nev.,	$3		Feb 27—Mar 12
Refugio, Chihuahua, Mex.,	$2½		Mar 31—April 14
Refugio, Mex			Meeting April 2
Southern Light, Lander co., Nev.,	$12.50		Mar 10—Mar 26*
Siskiyou, M. co			Meeting Mar 12
Siempre Viva, Sinaloa, Mex.,	$2.50		Mar 27—April 7
Siempre Viva, Sinaloa, Mex			Annual Meeting Mar 18
Sierra Valley, Plumas co., Cal.,	$1		Mar 5—Mar 17
Sierra Silver, Douglas co., Nev.,	$3		Mar 9—Mar 23
Salambo Copper,	50c		Mar 17—April 5
Sierra Nevada, Storey co., Nev.,	$2		Mar 13—Mar 28
United States, Storey co., Nev.,	50c		Mar 17—Mar 31*
Wallpi, Arizona			Annual Meeting, Mar 21*
Yuba, Yuba co., Cal.,	$2		Mar 31—April 14*
Yellow Jacket, Storey co., Nev.,	150		Mar 17—April 17

*Those marked with an asterisk (*) are advertised in this journal.

ASSESSMENT AND SALE LIST

OF CLAIMS IN

VIRGINIA AND GOLD HILL DISTRICTS.

CORRECTED WEEKLY FROM LATEST DATES OF THE TERRITORIAL ENTERPRISE.

[This list embraces Companies advertised in Virginia City papers, most of which are not incorporated or advertised in San Francisco.

Assessments Levied.

Name of Company.	Date of Levy.	Am't per foot
Bullion	Feb 10	10 00
Cole	Feb 8	1 00
Hale & Norcross	Jan 29	25 00
Jewett	Jan 29	1 00
Kearsarge	Jan 27	2 75
Kentuck	Feb 1	7 50
Peek	Feb 3	1 00
Sierra Nevada	Feb 7	2 00
United States	Feb 7	50
Yellow Jacket	Feb 12	150 00

Delinquent Sales.

Name of Company.	Date of Sale.	Place of Sale.
Belcher	Mar 3	Virginia
Bullion	Feb 27	Virginia
Coercion	March 5	Virginia
Kossuth	March 17	Virginia
McMeans & Williams	March 20	Virginia
North American	March 3	Virginia
North Comstock	March 24	Virginia
Nevada (Justis)	Feb 27	Virginia
overman	Feb 26	San Francisco
Peck	March 5	Virginia
Santa Rita	March 3	Virginia
Utah	March 3	Virginia

Say what is well, and do what is better; be what you appear, and appear what you are.

Let your behavior, like your garment, be neither straight nor loose; but easy and becoming.

Some persons are above our anger, others below it. To contend with our superiors is indiscretion, and with our inferiors is indignity.

A Beautiful Illustration of Life.—Our boat at first goes down the mighty channel—through the playful murmuriog of the little brook, and the willows upon the glassy borders. The trees shed their blossoms over our young heads, the flowers on the brink seem to offer themselves to our young hands; and we are in hope and grasp eagerly at the beauties around us; but the stream hurries on and still our haods are empty. Our course in youth aod manhood is along wider and deeper floods, amoog objects more strikiog aod magnificeot. We are animated by moving pictures of eojoy-ment and industry passiug us; we are excited by our short-lived eojoyments. The stream bears us on, and joys and griefs are left behind us. We may be shipwrecked but we cannot be delayed for rough or smooth, the river hast-ens towards its home, till the roar of the ocean is in our ears, aod the waves beneath our feet, and the floods are lifted up around us, and we take leave of earth and its iohabitants until of our further voyage there is no witness save the Infinite and Eternal.

The beloved of the Almighty are the rich who have the humility of the poor, and the poor who have the magoanimity of the rich.

Trades and Manufactures.

Pacific Glass Works

Are now prepared to execute orders for the manufacture of

All Kinds of Bottles to Order.

Office, No. 621 Clay street, San Francisco. 3v11-3m

JOHN DANIEL,
(SUCCESSOR TO O. GORI)
MARBLE WORKS,
No. 403 Pine st. bet. Montgomery and Kearny, San Francisco.

Mantels, Monuments, Tombs, Plumbers' Slabs, Etc., On hand and Manufactured to order.

☞ Goods shipped to all parts of the State. Orders respectfully solicited. 5v8-3m

NATHANIEL GRAY,
General Furnishing Undertaker,
641 Sacramento St., corner of Webb, San Francisco.
Burstow's Metallic Burial Caskets and Cases.
1tf

THEODORE KALLENBERG,
Maker of Models for Inventors.
MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.
No. 418 Market street, San Francisco. n7-tf

Palmer's Patent
ARTIFICIAL LEG,
Manufactured in Philadelphia, Penn.
JARVIS JEWETT, AGENT.
629 Washington Street, San Francisco, Cal. 10v8-1m

DENIS WHELAN,
Fashionable Boot Maker,
REPAIRING NEATLY DONE, AT SHORT NOTICE.
No. 17 Fourth Street,
Near Market street, San Francisco.
15v10-1m*

FIRE, HYDRAULIC & SUCTION HOSE,
And Leather Belting.
M. M. COOK & SON,
801 Battery Street, San Francisco,

Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.

The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO
CORDAGE MANUFACTORY.
CONSTANTLY ON HAND,
A Large and Complete Assortment
—OF—
MANILA CORDAGE,
FOR MINING PURPOSES.
—ALSO—
WHALE LINE, BALE ROPE, ETC.,
Manufactured from Pure Manila Hemp.
Hoisting Ropes for Deep Shafts,
—ALSO—
Lines for Ferry Boats,
Manufactured to Order.
Office at TUBBS & CO.'S,
Nos. 611 and 613 Front street
Manufactory at the Potre 14v10

Professional Cards.

Our Patent Agency.

The Patent Agency of the Mining and Scientific Press has been signalized with remarkable success during the past two years. The importance to the inventive genius of this coast of a thorough and reliable agency for the solicitation of Letters Patent from the United States and foreign Governments can not be over-rated, and the Proprietors of the Press, feeling the responsibility which rests upon them, and the reward which must follow the faithful performance of their trusts, will take care to afford inventors every advantage to be secured to them through a competent and responsible agency upon this coast.

S. C. BUGBEE & SON,
ARCHITECTS.
DESIGNS, MACHINE DRAWINGS, AND DRAWINGS ON WOOD.
74 and 75 Montgomery Block
SAN FRANCISCO. 25v10-3m

FREDERICK MANSELL.
Mechanical & Architectural Draughtsman,
No. 422 California street, corner of Leidsdorff.

Drawings of Models made for parties applying for patents at Washington or London. mar23-tf.

JAMES M. TAYLOR,
Attorney and Counsellor at Law,
COURT COMMISSIONER, appointed by the Fourth District Court, COMMISSIONER OF DEEDS for Nevada and Massachusetts,
Court Block, San Francisco.
Entrances opposite City Hall, Merchant street, and 636 Clay street. 14v11tf

DR. H. AUSTIN,
DENTIST,
No. 634 Washington Street,
Between Montgomery and Kearny Streets
[OVER SAN FRANCISCO BATHS]
SAN FRANCISCO. 20v10-qy

AUGUST KUNAST,
Stock Broker,
Member of the
San Francisco Stock and Exchange Board,
Buys and Sells Stocks, Bonds, Etc.
Office, No. 540 Washington Street, San Francisco. 2v10

G. F. DEETKEN,
Mining Engineer and Metallurgist,
Address - - - - - San Francisco. 25v9

WILLIAM P. BLAKE,
MINING ENGINEER,
Will make Surveys and Examinations of Mines, or give advice regarding their working, the erection of Machinery, etc.
Office at Union Iron Works, corner of First and Mission sts., or Lock Box 2,077 Post Office, San Francisco. 11v22qy

W. O. ANDREWS,
NOTARY PUBLIC,
—AND—
COMMISSIONER OF DEEDS,
636 Montgomery Street.
10v8qy

GEORGE H. BAKER,
Lithographer & Engraver,
No. 522 Montgomery St., San Francisco.
MINING STOCK CERTIFICATES LITHOGRAPHED IN MOST ARTISTIC STYLE. CALL AND EXAMINE SPECIMENS.
10v8-tf

SHERMAN DAY,
Mining Engineer,
No. 57 Montgomery Block, San Francisco,
Will examine, survey and report upon mines, and consult and advise concerning investments in mining property, or the machinery management and expenditures of mines.
22qy

To Mining Companies.

A GENTLEMAN OF MUCH EXPERIENCE AS A MINing Superintendent, in England, Spain, and on the Pacific coast, and one intimately acquainted with every department of mining, and with nearly every class of mineral, is desirous of securing a position as Superintendent of some mining operation in California or Nevada. The applicant was for four years Superintendent of the New Almaden Quicksilver Mine, in this State. The best of reference given on application at this office.
San Francisco, Oct. 12, 1865 .5v11tf

REMOVAL.
MONS. A. COULON,
Informs his patrons that he has removed his DRAWING SCHOOL from Pine street to
410 Kearny Street.
Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done. 20v11-1m

Volume Twelfth.—The Mining and Scientific Press, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

Metallurgy.

MOSHEIMER'S CONCENTRATOR
RECEIVED THE FIRST PREMIUM

From the ROYAL POLYTECHNIC SOCIETY, in Cornwall, and was highly recommended by the Commissioners as the most Simple and Effective Concentrator for all kinds of Ores.

Every Quartz Mill ought to have them, as they not only save Gold and Silver, but also the Quicksilver and Sulphurets, without extra labor. They can be built entirely of wood at the mine, and will separate more perfectly in one operation, than any other Concentrator in use. Apply to

J. MOSHEIMER,
23v11qy 423 Washington street.

EUROPEAN
METALLURGICAL WORKS,
—AND—
Practical Mining School,
Bryant Street, Between Third and Fourth,
SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

S. P. Kimball, J. R. Murphy.
10v10

SODIUM AMALGAM!
With Instructions for its Use.

THE ABOVE
FOR SALE IN ANY QUANTITY THAT MAY BE REQUIRED,
—BY—
H. P. WAKELEE, Importer,
2v12 1m Corner Montgomery and Bush streets.

G. KUSTEL,
Metallurgist and Mining Engineer,
Stevenson House, corner Montgomery and California sts.
Ores Analyzed,
Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
20v11-3m

BOALT & STETEFELDT,
Metallurgists and Mining Engineers
AUSTIN, NEVADA.
Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

Copper, Lead, Gold, Silver,
Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

THOMAS PRICE,
Agent for Townshend Wood & Co., Swansea,
No. 406 California Street, San Francisco.
15v10-3m

MARTIN & CO.,
Office, Stevenson House,
Corner California and Montgomery streets (up stairs).
WILL CONTRACT FOR THE
PURCHASE OF COPPER ORES,
Assaying eight per cent. and upwards of Copper to the
We will make advances upon Ores of Copper.
San Francisco, Post Office Box 1259. 22

MINERS

Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.

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PETALUMA, Oct. 4, 1865.

MESSRS. DEWEY & CO.—Gentlemen: Your note informing me that my patent for Crushing and Baling Machine is ordered to issue is at hand. Please accept my thanks for the prompt and business-like manner with which the case has been conducted, and inclosed find twenty dollars for balance Government fees. Respectfully, etc.
JACOB PRICE.

AN EXPERIMENT WITH THE POKER.—An experiment of a similer character to the above may be made as follows: Tie a string round the handle of a poker, or other similer long piece of iron, leaving the two ends of the string about a foot long. Now take the ends of the cord, and pass them one over each ball of the thumb, so that the poker can be lifted up and suspended between the hands. In this position place the thumbs and ends of the cord as close into each ear as convenient. If now a second person strike the poker, the one who holds it will hear a sound very surprising when experienced for the first time, but scarcely audible to the striker. If the blow be a sharp one, and struck with a hard body, as the back of a knife, the sound will be as strong as the deepest note of a piano, and if a hard blow with a hammer the sound will appear as powerful and booming as a stet bell. If the experiment be made with a large kitchen poker, then the sound is "stunning," and equals anything that can vibrate from the City Hall bell.

Another curious instance of the same class of facts, as given above, in relation to sounds, may be found in the story of a man employed in the American Telegraph Company's office in Washington City, who, though he cannot speak or hear, is classed as a first-class operator, dealing with sounds. He can send and receive dispatches intelligently by the sense of feeling. He places his leg against that of an instrument-table, and in other ways reads by the slight jarring, while watching the operation of the instrument itself; and he thus understands all the machine is talking about.

HEARING WITH THE TEETH.—That faculty which we call "hearing," can be as well conveyed to the mind by means of the teeth as the ear. Curious as this assertion may appear, it is easy to prove it by the following simple experiment. Lay a watch upon a table, glass side downwards; then stand so far from it that you cannot in the ordinary way hear the ticking. Now place one end of a small stick (say six feet long) upon the back of the watch, and grip the teeth upon the other; with the fingers close each ear, to exclude all external noise; the beat of the watch will then be as audible as if placed against the ear. All other sounds can be conveyed in the same manner, no matter how long the stick is; for instance, if one end is put upon a pianoforte in a sitting-room facing a garden, and the stick is thirty or forty feet long, extending to the further end of the lawn or walk; if the instrument is ever so lightly played, "the tune" will be instantly distinguished by any person applying the teeth to the opposite end of the stick.

NAPOLEON, in his solitude, is said to have used the expression,

"Able was I, ere I saw Elba;"

which is the same spelled backwards.

LONGFELLOW'S poem, "Excelsior," was refused publication, when offered to the New Bedford Mercury, years ago—the editor thinking it a very foolish production.

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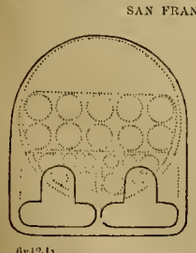

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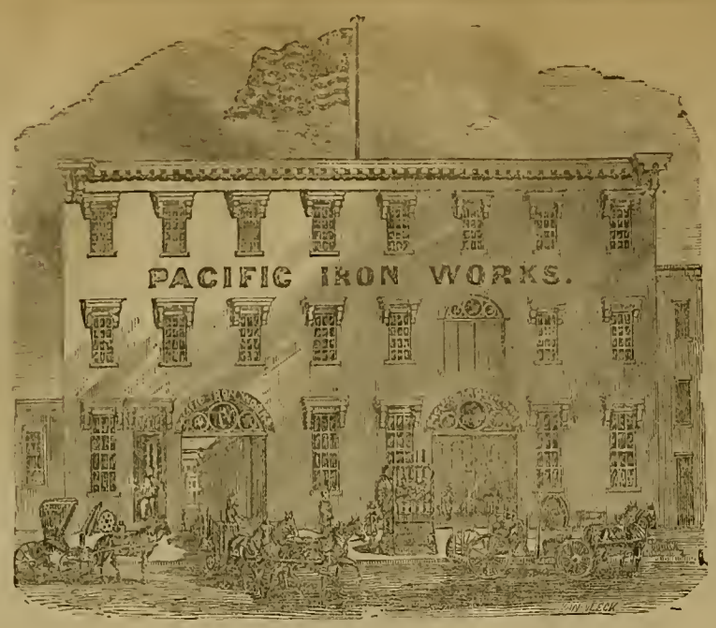

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Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

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Superior for working either Gold or Silver Ores.

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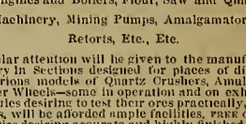

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MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings, at the lowest market rates

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Experiments for Children.

Place a common iron Japaned tea-tray on a dry, clean drinking-glass, or on two or more of them; then take a sheet of paper and bold it to the fire until it becomes thoroughly dried but not scorched. (Recollect that paper is always more or less moist from contact with the atmospbere; hence the necessity for drying). Now lay the paper on the table, and take a piece of India rubber and pass it lightly across the same from left to right, as if you were rubbing out pencil marks. Let it be drawn across about a dozen times, beginning at the top of the sheet and making each stroke a little lower down, until you have passed the rubber once or twice over the entire surface.

Now take up the paper by two corners, and bring it over the tray, and on dropping it you will see it fall almost like a sheet of iron. Supposing you have done everything right up to this point; if you now place the end of one of your fingers near the under surface of the tray, you will feel a sensible electric shock.

Now place a needle on the tray, with its point projecting outwards, remove the paper, and a star sign of negative elicitricity will be seen, if the room is dark enough; return the paper and the positive *brush* sign will appear. This arrangement will form, in fact, a very good *electrophorus*—an instrument for exciting electricity. It is sometimes sufficiently powerful to give a spark an inch long, strong enough to set fire to light combustible bodies, and may be made to exhibit, on a small scale, most of the ordinary electrical phenomena, not requiring coated surfaces.

A very interesting class of experiments may be made with it in the following manner: Take four or six tumblers, place them bottom upwards on the floor, lay a hook upon them; then let a person stand upon the hook, and he will be in what is called an *insulated* position—that is he will be so conditioned that the electricity which may be conveyed into his body will not readily pass off. When standing in the position described, if he takes the tray, charged as we have also described, from *its* insulated position on the glasses, the paper will still adhere to it although he may hold it vertically, or banging by his side; and while so holding it, sparks of electricity may be drawn from any part of his person by placing the end of your finger near him; or he may draw sparks from other persons as the case may be. Under peculiarly favorable circumstances he may light the gas by holding his finger to the burner as you would a match! He may even light it *by holding a piece of ice to it!* These experiments are easily performed, perfectly safe, amusing and instructive, especially when the parents or teachers assist in them and explain their nature more fully than we have done.

How to Burn Iron.—Take a file and rasp off half an ounce of iron; then put out your gas lights, if you have them, and light a solitary candle. Take up a pinch of the filings and hold them just above the flame of the candle and gradually drop them. You will find that they take fire immediately on coming in contact with the blaze, and burn most brilliantly; each particle burning like a star, and the whole presenting a very pretty example of miniature brewerks. The principle is just the same as that upon which the finer you split up your wood the more readily it will burn. You can burn up the entire poker in a short time, if you will only reduce it to filings.

Size of the West.—The "La Crosse Democrat" says: Illinois would make forty such States as Rhode Island, and Minnesota sixty. Missouri is larger than all New England and Ohio exceeds either Ireland or Scotland, or Portugal, and equals Belgium, Scotland and Switzerland. Missouri is more than half as large as Italy, and larger than Denmark, Holland, Belgium and Switzerland. Missouri and Illinois are larger than England, Scotland, Ireland and Wales.

The First Known Sale of Land, of which we have any record, is thus recorded in the Bible:—"Ephron, the son of Zobar, made sure unto Abraham, for a possession, his field which was in Machpelah, which was before Mamre, the field and cave which was therein, and all the trees that were in the field, that were in all the borders round about." Our young readers may find it a useful exercise to hunt up the book, chapter and verse where it occurs.

An Italian inventor named Casolari has recently produced a mechanical press, by which, it is said, a speech may be printed while it is being delivered, and be all ready for publication at the time the speaker leaves the platform. A public trial of it recently took place at Modena, when five stanzas of Dante's great poem, together with a learned commentary on the same, were read and printed from the reading in lines containing each thirty letters, in the space of nine seconds.

It takes but a moment to cloud a lovely morning, and a slight misdeed may mar the happiness of a lifetime.

PROSPECTUS

OF THE

California Youths' Companion.

PUBLISHED EVERY FRIDAY,

BY DEWEY & CO.,

Of the Mining and Scientific Press, Patent Agents, Book and Job Printing Office, 505 Clay Street, corner of Sansome, San Francisco.

SUBSCRIPTION PRICE:

For One Year, $2.50; One Quarter (12 weeks), 75 Cents. Liberal discounts will be made to Clubs in the Interior, and to Classes in this city.

In the management of the Companion, we shall endeavor to express ourselves pleasantly, in simple language, and in a manner perfectly comprehensive to children. We shall aim to encourage them to become good, wise, and happy.

We shall give, from time to time, illustrations, calculated to attract their attention, and to impress upon their minds ideas not otherwise easily understood—in short we shall use the engraver's beautiful art to light up the pathway of progress for children.

Stories, when published, will be short, calculated to instruct as well as amuse; and we shall endeavor to make it a point that such contributions and selections shall always be of a high moral character.

Humorous sketches and amusing incidents will occasionaly find an appropriate place to spice our columns.

We shall have an especial care to exclude all unchaste or improper paragraphs and expressions, admitting nothing into the columns but such as shall have a tendency to improve and ennoble the youthful mind.

We shall endeavor to so blend rational amusement with instruction, as to render all our efforts in that direction, pleasing and desirable, rather than dull and uninteresting.

We have in course of preparation a set of skeleton engravings—some two hundred in number—which we propose to make a feature in the paper or the present year. These engravings are designed to illustrate a healthful class of exercises.

Friends pleased with our efforts to provide for the school children of California a first-class youths' paper, are earnestly requested to assist us in the undertaking, by aiding in its circulation, and calling the attention of their neighbors to the commendable features of our paper. Such favors will be most fully appreciated by the publishers. Send for specimen numbers, which will be furnished free.

DEWEY & CO., Publishers.

San Francisco, Feb. 23d, 1866.

Respect old Age.—Bow low the head, my young friend. Do reverence to the old man.

He was once young and fair like you; but the vicissitudes of life have silvered the hair, and changed the round, merry face to the worn visage before you.

Once that heart beat with incidents co-equal to any you have ever felt; but his aspirations have been crushed by disappointment, as yours may possibly be.

Once that form moved proudly through the gay scenes of life; now the hand of Time that withers the flowers of yesterday has warped the figure and destroyed the noble carriage.

Once, at your age, he possessed the thoughts that pass through your brain; now wishing to accomplish deeds worthy of a nook in fame; anon imagining life a dream, that the sooner awoke from the better. The time to awake is very near at hand, yet his eye kindles at noble deeds of daring, and the hand makes a firmer grasp of the staff.

Bow low the head, my young friend, as you, in your old age, would be reverenced.

Run not after blessings; only walk in the commandments of God, and blessings shall run after you, pursue and overtake you.

Worth Remembering.—The whole use of a hat is probably not generally known—it is of more use than covering the head. If, when a person fell overboard, he had the presence of mind to instantly take off his hat, and hold the him of it to his chin, so that the hollow would be upward, it would keep him above the water as long as he could hold it in that position. This has been tried, and actually found correct.

Anger may glance into the breast of a wise man, but it rests only in the bosom of fools.

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Practical and Analytical Chemistry and Metallurgy.

THOMAS PRICE,

Professor of Chemistry,

(Formerly of the Normal College, Swansea,)

Will give practical instructions in qualitative and Quantitative Analysis and Assaying. The course qualifies students for the application of Chemistry to METALLURGY, MANUFACTURING ARTS, and MINING PURPOSES.

PHARMACEUTICAL and TECHNICAL CHEMISTRY, such as is required by Medical and Pharmaceutical students, will be taught to such students as may require it.

Course of General Chemistry.

Evening Lectures will be delivered every Tuesday, at half-past seven o'clock, P. M., in the Philosophical Hall of the College, without extra charge to the students in the Institution.

On and after the 15th of February, the Laboratories will be open every day, except Sundays, from 8 A. M. to 5 P. M. For further particulars, address

REV. P. V. VEEDER,
Principal of the City College.
Or at 406 California Street.

6v12tf

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TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months..... $350

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7v12tf **Principals.**

Benicia College.

The TWENTY-SECOND SESSION HAS JUST OPENED. Pupils received at any time.

The Instruction is divided into three parts—The Elementary course; the English, or Scientific Course; and the ordinary College Course.

Pupils generally, and especially those in the Preparatory Departments, board at the Institution, under the direct charge of the Teachers.

For further information, send for Circular.

3v12-3m **C. J. PLATT, Principal.**

ANNUAL REPORT

—OF THE—

Pacific Insurance Company.

In compliance with the act of the Legislature of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD..... $750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire..... $12,973,949
Marine..... 481,408

This Company commenced underwriting Marine Risks, August 1, 1851.

V.—This Company insures against the following risks, viz: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. W. Wilson,	G. W. Bell,
Alex. Weill,	M. Wheeseman,	Chas. Mayne,
Abm. Seligman,	Wm Hooper,	Lloyd Tevis,
Anson G. Sules,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery.
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hausemann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis.
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.

4v12-3m

1852. 1866

A NEW VOLUME.

Fourteenth Year of Publication.

THE GOLDEN ERA.

Founded in 1852.

The oldest Weekly Paper in the State, permanently established, and more widely circulated at home and abroad than any other on the Pacific Coast. In California, the Atlantic States, and throughout the entire field of its great and rapidly increasing circulation, The Golden Era is universally regarded as a Literary and Family Journal of unequalled excellence. Among its contributors are all the best writers on this side of the Continent, and correspondents and contributors of distinguished ability in New York, Paris and London.

Miss BRADDON'S Greatest Sensation Story published from Advance Sheets:

RUPERT GODWIN;

—OR—

The Secret of Wilmindon Hall.

A NOVEL.

By Miss M. E. Braddon,

Author of "Lady Audley's Secret," "The Outcasts," "The Doctor's Wife," "Three Times Dead," etc.,

—IN—

THE GOLDEN ERA.

NOW IS THE TIME TO SUBSCRIBE!

The Golden Era is now enlarged by the addition of eight columns to its pages—and presents fifty-six columns, containing the greatest possible variety of Valuable and Entertaining, Original and Selected Matter, all combining to render The Golden Era a Literary and Family Journal of surpassing interest and attraction; a Welcome Guest in Cottage and Cabin; the favorite at the fireside in City and Country, the most useful, agreeable altogether desirable publication for California readers and their kindred and friends in the Atlantic States, Europe, and elsewhere. Every Household in the Mountains and Valleys, the Cities, Towns, and Mining Camps of California and throughout the Pacific States and Territories, should receive and welcome The Golden Era as a regular weekly visitor.

Serial Romances in The Golden Era.

The most popular Novels of the present day published as Serials, from week to week, in the Golden Era, from advance sheets, simultaneously with their appearance in the English and Atlantic Periodicals.

Among the contributors to the Golden Era are all the prominent writers of Literary Repute in California and on the Pacific Coast, also correspondents and contributors of distinguished ability in the Atlantic States and Europe, comprising an array of Talent and Genius unapproached by any Literary Journal in California, the Atlantic States, or Europe.

"THOUGHTS AND THINGS"

APPEAR WEEKLY IN THE GOLDEN ERA.

Read "Thoughts and Things" in the Golden Era.
" "Professor Clearquill." in the Golden Era.
" "Dogberry," in the Golden Era.
" "Alice Mason," in the Golden Era.
" "Hugh Humphrey," in the Golden Era.
" "Bill Dadd," in the Golden Era.

SUBSCRIBE FOR THE GOLDEN ERA.

One Year.....$5 00 Six Months.....$2 50

To Mail Subscribers.

The Golden Era for One Year.....$5 00
The Golden Era for Six Months.....$2 50
The Golden Era for Three Months.....$1 55

Sent from the Office to any Address in California and Oregon—Nevada, Washington, Idaho, Utah, Montana, and Colorado Territories—the Atlantic States, Europe, and all parts of the World.

Take care to write distinctly the name of the person, the name of the city, town or locality where the post office is situated, and the name of the County and State, in order that the paper may be fully and accurately directed to every address.

AGENTS in every part of the State receive subscriptions for the Golden Era.

POSTMASTERS in California, Oregon, and neighboring Territories, obtaining subscriptions for the Golden Era and forwarding the same, with name and address of the subscriber, will be allowed a very liberal commission therefor.

Liberal Terms to Clubs.

Three copies, one year.....$12 00
Five copies, one year.....$18 00
Ten copies, one year.....$35 00

Now is the Time to Subscribe.

TO ADVERTISERS.

Best Advertising Medium.—The Golden Era is the oldest Weekly Journal in California, and indisputably enjoys by far the largest circulation in the city of San Francisco and in the interior of the State.

THE GOLDEN ERA

Is universally read in every city, town, village and mining and agricultural precinct in California, and offers unusual and unequalled advantages to those who desire to bring their business prominently before the community. Only a limited space is devoted to advertising. All advertising pages are also largely occupied with fresh and interesting reading matter, and no advertisement can escape attention. The charges for advertising are not so large, proportioned to the benefits derived, as those of other papers. Liberal terms will be made with those who advertise for three or six months, or by the year.

BROOKS & LAWRENCE,

Golden Era Building,
No. 543 Clay street, near Montgomery, San Francisco

LITTLE DEEDS OF KINDNESS.—Each of a thousand acts of love costs very little of itself, and yet when viewed together, who can estimate their value? The child whose good offices are always ready when wanted—to run up stairs or down—to get chips, or rock the cradle—to run on an errand and right back—all with a cheerful look and a pleasant temper, has a reward along with such good duties. If a little girl cannot take her grandfather on her lap as he takes her on his, she can get the slippers, or put away his book, or gently comb his thin locks; and whether she thinks of it or not, these little kindness that come from a loving heart, are the sunbeams that lighten up a dark and woful world.

If you are naturally disposed to anger, frequent the company of the patient; by this means, and without any labor you will attain a becoming temper.

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Comet Petroleum Company, Mattole District, Humboldt County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of January, 1866, an assessment (No. 2) of thirty (30) cents per share was levied upon the capital stock of said Company, payable on the 23d day of January, 1866, in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 36 Exchange Building, Montgomery street, in the city of San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

L. CROSBY, Secretary.

Office, 36 Exchange Building, Montgomery street, San Francisco, California. mar3

Evening Star Gold and Silver Mining Company, Humboldt County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. DUPERU, Secretary.

Office, Pier 22 Stewart street, San Francisco, Cal. mar3

Evoca Consolidated Copper Mining Company.—Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 31st day of January, 1860, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	Number of Certificate.	Number of Shares.	Amount.
J Munson	71	20	$ 5 60
I Munson	70	12	$ 3 00
Ira Munson	74	20	$ 5 60
W C Budd	101	50	$12 50
W H Bell	32	5	$ 1 25
W H Bell	33	5	$ 1 25
W H Bell	34	5	$ 1 25
W H Bell	35	5	$ 1 25
W H Bell	36	5	$ 1 25
W H Bell	37	5	$ 1 25
W H Bell	38	5	$ 1 25
W H Bell	39	5	$ 1 25
W H Bell	50	5	$ 1 25
W H Bell	51	5	$ 1 25
W H Bell	52	12	$ 3 00
C A Crane	64	12	$ 3 00
P C Dart	121	12	$ 3 00
Charles D Carter	138	10	$ 2 50
Charles D Carter	140	10	$ 2 50
Charles D Carter	141	10	$ 2 50
W F Williamson	14	112	$28 00
W F Williamson	15	112	$28 00
Geo F Parker	104	112	$28 00
Charles E Abbot	216	207	$51 75
Charles E Abbot	217	12	$ 3 00
G S Ashmead	173	50	$12 50
G S Ashmead	238	50	$12 50
Wm Hamill	177	50	$12 50
George Treat	190	50	$12 50
J J Robbins	209	152	$38 00
J H Stewart	not issued	40	$10 00
F Collier	21	112	$28 00

And in accordance with law, and an order of the Board of Trustees, made on the 31st day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Monday, the 19th day of March, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHARLES E. ABBOT, Secretary.

Office, 537 Washington street, Room 3, San Francisco, California. mar3

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of March, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. ma3

Julia Gold and Silver Mining Company, Virginia, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 1st day of March, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 16th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. mar3

Jewett Gold and Silver Mining Company, Location of Works: Gold Hill District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 29th day of January, 1860, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
George E Willett	3	20	$ 20 00
A M Comstock	10	80	80 00
George E Willett	31	20	20 00
Joseph Napthaly	74	25	25 00
Joseph Napthaly	75	25	25 00
Joseph Napthaly	76	50	50 00
Joseph Napthaly	77	100	100 00
James G Cooper	84	5	5 00
S R Harris	88	20	20 00
S R Harris	80	20	20 00
David Speace	94	2	2 00
Pinney Bartlett	112	12	12 00
Thomas Thwaites	117	8	8 00
S H Harmon	118	26	20 00
E M Van Reed	127	20	20 00
Gerard Debney	120	18	18 00
Jacob Hardy	130	20	20 00
James G Cooper	143	19	19 00
G M Burnham	145	10	10 00
James Wright	152	40	40 00
James Wright	153	40	40 00
James Wright	154	20	20 00
George E Cowell	167	100	100 00
George E Cowell	168	100	100 00
George E Cowell	100	100	100 00

And in accordance with law, and an order of the Board of Trustees, made on the 29th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, on the 20th day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

G. M. BURNHAM, Secretary pro tem.

Office, 436 Jackson street, San Francisco. mar3

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 1st day of February, 1860, the several amounts set opposite the names of the respective shareholders as follows:

Names.	No. Certificate.	No. Shares.	Amount.
A E W Thompson	119	20	$10 00
W J Leland	56	25	12 50

And in accordance with law and an order of the Board of Trustees, made on the 1st day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the Company, on the 19th day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. mar3

Leland Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 1st day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Isaac Bruan	71	15	$ 7 50
A E W Thompson	120	20	10 00
W J Leland	63	25	12 50
Emma Kinman	114	10	5 00

And in accordance with law and an order of the Board of Trustees, made on the 1st day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 19th day of March, 1860, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. mar3

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of February, 1866, an assessment of two dollars ($2) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 210 Pine street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up stairs, San Francisco. mar 3

MINING LAWS AND FORMS.

Third Edition revised and enlarged.

Compiled by H. E. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete; Digest of Decisions of the Supreme Court; Forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

Published by H. H. BANCROFT & CO.

Mining Notices—Continued.

New Mining Advertisements to be found under another heading.

Consolidated Silver Hill Mining Company.

Location of Works: Esmeralda District, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Ainsworth, J C	337	12	$24 00
Braly, F C	159	10	20 00
Buckman, J A	294	30	60 00
Buckman, J A	944	10	20 00
Barkeloo, John	703	5	10 00
Barkeloo, John	973	10	20 00
Boyd, Jas T	872	10	20 00
Bennet, Th	764	10	20 00
Bradford, C H	027	10	20 00
Bohn, S H	932	25	50 00
Belden, H	059	3	6 00
Belden, H	960	2	4 00
Barker, J	995	5	10 00
Cullen, J W	191	8	10 00
Center, M	194	5	10 00
Cohen, S	592	2	4 00
Carlyle, Mary E	967	14	28 00
Chamberlin, A L	993	10	20 00
Chamberlin, A L	994	10	20 00
Donahue, W M	326	5	10 00
Dunn, E T	350	10	20 00
Daly, John T	411	10	20 00
Daly, John T	412	10	20 00
Fekel, J N	321	10	20 00
Feast, W	727	5	10 00
Feast, W	728	5	10 00
Feast, W	729	5	10 00
Feast, W	730	5	10 00
Feast, W	731	5	10 00
Feast, W	732	5	10 00
Feast, W	733	5	10 00
Feast, W	734	5	10 00
Feast, W	735	5	10 00
Feast, W	736	5	10 00
Falkenau, J	666	5	10 00
French, J M	716	5	10 00
French, J M	737	10	20 00
French, J M	738	5	10 00
Foy, J D	773	15	30 00
Foley, T	1041	20	40 00
Giffin, O F	338	3	0 00
Giffin, O F	794	10	20 00
Giffin, O F	797	15	20 00
Giffin, O F	939	10	20 00
Giffin, O F	940	10	20 00
Grinbaum, M S	772	10	20 00
Grinbaum, M S	854	5	10 00
Gatlell, B	1048	10	20 00
Hewston, John, Jr	280	20	52 00
Hadeler, H	652	10	20 00
Harper, W M	875	2	4 00
Hamlen, W H	901	5	10 00
Hoerebner, C J	961	5	10 00
Hawkins, Julia	984	3	6 00
Kellogg, S W	336	2	4 00
Kohler, A	562	10	20 00
Keesing, B	1036	8	16 00
Leland, Ch	413	5	10 00
Levitzky, H	869	12	24 00
Leppien, J	978	3	6 00
Levy, A	1024	4	8 00
Murphy, J L	33	42	84 00
Murray, J	631	26	52 00
Murray, J	861	10	20 00
Mitchell, O C	906	10	20 00
Marcus, A	1049	10	20 00
Mandlebaum, F	853	20	40 00
McLea, Donald	905	12	24 00
Newmark, J P	hal 787	2	4 00
Osgood, John K	361	2	4 00
Osgood, John K	898	30	60 00
Parker, B G	170	25	50 00
Pfister, C	820	5	10 00
Polhemus, C B	870	10	20 00
Phelan, Jas	883	13	26 00
Phelan, Jas	884	12	24 00
Phelan, Jas	886	30	60 00
Phelan, Jas	887	20	40 00
Perry, John, Jr	880	6	12 00
Perry, John, Jr	817	2	4 00
Perry, John, Jr	890	15	30 00
Perry, John, Jr	891	25	50 00
Perry, John, Jr	1039	20	40 00
Redington, J H	374	15	30 00
Redington, J H	311	10	20 00
Redington, J H	312	5	10 00
Redington, J H	313	5	10 00
Redington, J H	314	5	10 00
Rosenfeld, J	hal 823	5	10 00
Reichenbach, J	934	10	20 00
Robbins, J J	1025	9	18 00
Robbins, J J	1026	10	20 00
Robbins, J J	1027	10	20 00
Robbins, J J	1028	10	20 00
Robbins, J J	10 9	10	20 00
Robbins, J J	1030	10	20 00
Robbins, J J	1031	10	20 00
Robbins, J J	1032	5	10 00
Robbins, J J	1033	4	8 00
Robbins, J J	1034	1	2 00
Robbins, J J	1035	15	30 00
Shotwell, J M	903	10	20 00
Shirley, P	335	2	4 00
Schmiedell, H	935	20	40 00
Schmiedell, H	hal 843	5	10 00
Sparks, Z W	1045	10	20 00
Spense, W A	807	10	20 00
Spense, W A	904	5	10 00
Stevens, Th	972	20	40 00
Stevens, Th	981	10	20 00
Stevens, Th	976	5	10 00
Stevens, Th	977	15	30 00
Toomy, D	hal 104	5	10 00
Tracy, Theo F	320	5	10 00
Tracy, Theo F	327	5	10 00
Talbot, T A	574	5	10 00
Tams, S	hal 744	3	6 00
Toomey & Fagan	799	10	20 00
Turney, John H	871	10	20 00
Levy, H	752	10	20 00
Levy, H	753	10	20 00
Levy, H	931	20	40 00
Stanley, S L	1043	15	30 00
Van Bergen, N	558	10	20 00
Vanderslue & Co	874	5	10 00
Watson, N A	011	10	20 00
Wadham, W	880	5	10 00
Ponton, L de Arce	980	7	14 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at the office of the Company, Room No. 15, Government House, San Francisco, Cal., on the 3d day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

feb17 JOHN S. MACKENZIE, Secretary.

THE PRESS is a large, sixteen-page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of February, 1866, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

A. B. WINEGAR, Secretary.

Office, 308 and 310 Front Street, San Francisco. feb17

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Assessment No. 10.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 20th day of February, 1866, an assessment of one dollar and fifty cents ($1.50) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on Saturday, the 24th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 10th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco.

NOTICE.—By an order of the Board of Trustees, made in the above Company, all the Certificates of Shares outstanding of the old stock are annulled, and have been replaced by issues of Certificates of the new stock, and parties are cautioned against purchasing any of the old Certificates, as they are all cancelled on the books of the Company, and all transfer of the same stopped.

feb24 W. D. ROOT,

Providence Gold and Silver Mining Company, Nevada District, Nevada County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of February, 1866, an assessment of one ($1) dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco. feb10

Southern Light Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of February, 1866, an assessment (No. 8) of twelve dollars and fifty cents ($12.50) per share was levied upon the capital stock of said Company, payable immediately, in United States gold or silver coin, to the Secretary, at his office, No. 228 Front street, San Francisco, Cal.

Any stock upon which said assessments shall remain unpaid on Saturday, the 10th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 26th day of March, 1866, at 3 o'clock, P. M., to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

E. J. DRINKHOUSE, Secretary.

Office, No. 228 Front street, San Francisco, Cal. feb10-4w

United States Mining Company.—Location: Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of February, 1866, an assessment of fifty (50) cents per share was levied on each and every share of the capital stock of said company, payable immediately, in gold or silver coin of the United States, to the Secretary, at his office, or to F. A. Marston, Virginia, Nevada.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised as delinquent, and unless paid, will be sold on Saturday, the 31st day of March, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. feb10

Walipi Gold, and Silver Mining Company, Moss Lode, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that the Annual Meeting of the stockholders of the Walipi Gold and Silver Mining Company, will be held at the office of the Company, No. 620 Washington Street, San Francisco, ON WEDNESDAY, March 21, 1866, at 12 o'clock M. Trustees will be elected, and other important business transacted.

feb24-4w H. B. CONGDON, Secretary.

Constitution and By-Laws
—OF—
Mining and Prospecting Companies

Elegantly printed, with care and dispatch, at the office of the **Mining and Scientific Press.**

☞ Orders from the interior, faithfully attended to.

ENGRAVED TO ORDER.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

KIND HEARTEDNESS TO CHILDREN.—Blessed be the hand that prepares a pleasure for a child, for there is no saying when and where it may again bloom forth. Does not almost everybody remember some kind-hearted man who showed him a kindness in the happy days of his childhood? The writer of this recollects, when a bare-footed lad, he stood at the wooden fence of a little garden, in his native village, while with longing eyes he gazed on the flowers which were blooming there in the brightness of a Sunday morning. Their owner came forth from his little cottage. He was a wood-cutter, and spent the whole week at work in the woods. He had come into the garden to gather flowers to place in the button-hole of his coat when he went to church. He saw the boy, and, breaking off the most beautiful of his carnations, he gave it to him. Neither the giver nor the receiver spoke a word, and with bounding steps the boy ran home. And now here, at a vast distance from that home, after so many years, the feeling of gratitude which agitated the breast of that boy expresses itself on paper. The carnation has long since withered, but it now blooms afresh.

THE RISING GENERATION.—In the United States there are about 60,000 common schools, which are supported in part by the State Treasuary, and partly by school funds and school taxes. In England and Wales there are 46,042 public and private schools, attended by 2,144,378 scholars. In addition, there are 1,545 evening schools, which provide for 30,783 children. The number of Sunday Schools is 23,514, with 2,407,642 scholars. It is estimated that in England there is a scholar for every 835 persons; in Scotland about one-seventh of the people are at school; while in the United States there is one scholar for every five persons. In Russia only one child for about 200 persons receives instruction in school, so that while at 9 o'clock on every Monday morning there are 4,000,000 American boys and girls at school, there are in Russia only 100,000 enjoying the benefit of instruction.

A Clergyman in Chicago, last Christmas morning, missed his stockings, and after a long search found one on each horn of a new milch cow, which had been presented to him by his parishoners, and ornamented in this way to indicate that it was a Christmas gift.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

FOR SALE.

Owing to the great distance from our point of manufacture, we offer for sale the State Right of California for our

Patent Boring Tools for Artesian Wells,

illustrated upon the first page of this paper February 17th. These Tools are now in use in the various Oil Regions of Pennsylvania, Ohio and Virginia; and although but just introduced, are universally approved and admired, and bid fair to become eventually the most popular tools in use. We shall close without reserve to the party sending us the highest bid, to whom we will mail a complete set of Drawings, copy of Circulars, etc.

Address, fully,

A. A. WILSON,
Morgan Iron Works,
7v12tf Foot 9th street, East River, New York City.

GEORGE E. BROWN,

(Late Assistant Examiner in the U. S. Patent Office,)

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INVENTORS AND THEIR ASSIGNEES,

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Patent Solicitor,

He will make Preliminary Examinations in the Patent Office, with a view to ascertain the Patentability of any invention that may be submitted to him for that purpose; will prepare the necessary papers for those who wish to make Applications for

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—OR FOR—

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Already granted; will act as an Attorney in presenting Applications at the Patent Office, and in managing them to a final issue; will draw up Assignments; will examine into the condition of Rejected Applications when desired to do so, and undertake the prosecution of such as may be considered patentable, and do whatever else is usually done by Patent Solicitors.

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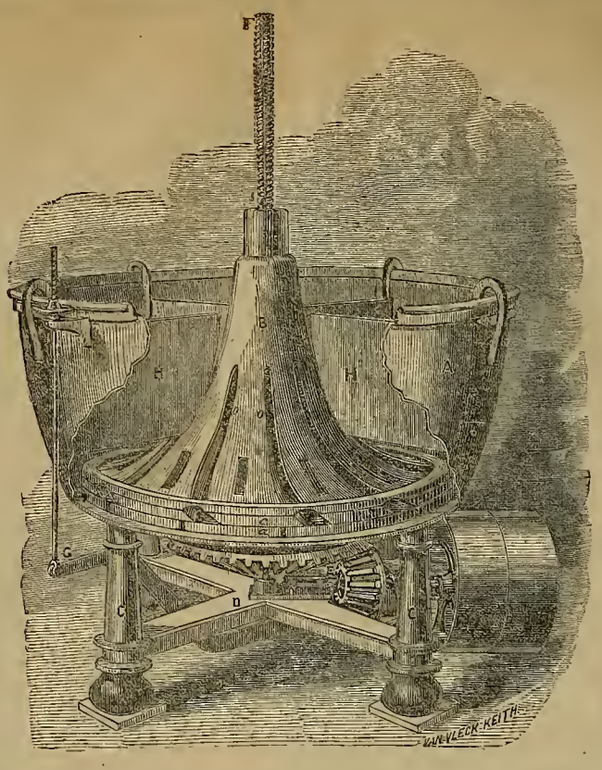

THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works.

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.

SAN FRANCISCO, June 13, 1865.

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Corner of Montgomery and Sutter streets,
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S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests. 15v11

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IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all newly furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
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8v12-3m **MRS. J. DUNN, Proprietress.**

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AMERICAN WATCH FACTORY,

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San Francisco, March 6, 1865. 11v10-tf

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Contractor

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MINING PROPERTIES.

PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble. 1v12

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

HOME!—Who is not charmed with the music of that lovely word? Who has not felt the potent spell of magic that lingers around it, than which no term in the English language is more replete with delightful associations? It matters not where it is—whether under a scorching tropical sun, or far away among the icy regions of the north; whether on the mountain or in the valley; whether in the city or in the country, it still is home. It consists neither of house; nor of furniture; nor of gold. Material things that perish and change, may sometimes add interest to home; but they never constitute its essence. It is not essential to the happy home that it should contain the luxuries of carpeted floors and elegant furniture. Such things only dazzle the eye; they never touch the heart. Cheerful hearts and loving acts, combined with neatness and order, are the things that make home happy. As a general rule, there is infinitely more true happiness to be found at the cottage fireside, than in the splendid saloons of the wealthy. Still, the luxuries and elegancies of life are not to be despised. When thankfully received and properly employed, they add vastly to our happiness. It is the *use* we make of our riches which gives us true enjoyment—not their possession.

As a writer has most beautifully said: "The happiness of life, the happiness of the family, especially, is made up of minute fructions; the little soon-forgotten charities of a kiss, a smile, a kind look, a gentle word, a heartfelt compliment—these, and the thousand other little kindnesses of genial feelings make a perpetual summer in the household where they prevail. And if there be a spot on earth which an els might long to visit, and where they might fondly linger, it is the loving christian family, where parents and children, board together in the blessed compact of love, and moving in harmonious spheres of duty and affection, fulfil the holy and beautiful purposes of the Family Institution."

THERE are no less than thirty-seven rebellions recorded in English history between the time of William the Conqueror, A. D. 1069, and the Irish outbreak in 1803. Several others have since occurred. The British foreign wars have been incessant, and their expenses have been enormous. That of the American Revolution was six hundred and thirty million dollars, and the contest with the first Napoleon cost five thousand seven hundred and ninety-five million.

No one will consider the day is ended, until the duties it brings have been discharged.

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Removal.

The Office of the MINING AND SCIENTIFIC PRESS has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive JOB PRINTING OFFICE.

San Francisco, April 10th, 1865,

Machinery.

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; not a particle of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

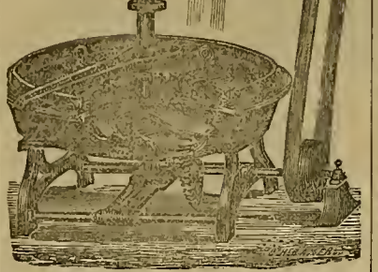
Give it a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,

Novelty Iron Works, Fremont st., San Francisco,

15v11-3m Or to K. T. STEEN, Agent.

BAUX & GUIOD S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules, among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crail's Gravel Cement Works, Nevada county; Wallman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6d1f

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QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

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WASHOE,
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—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

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4v10

Hepburn & Peterson's
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THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

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Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ The Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. [Illustrated in the Mining and Scientific Press, April 9th, 1864.]

HEPBURN & PETERSON.

nov8 3m*

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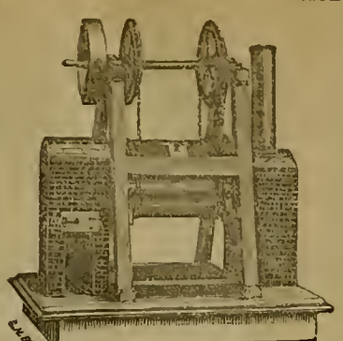

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IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person; and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN
HORSE POWER
For Sawing Wood.

ALSO, THE

Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.

☞ For further Particulars see small circulars. ☜

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Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist-mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

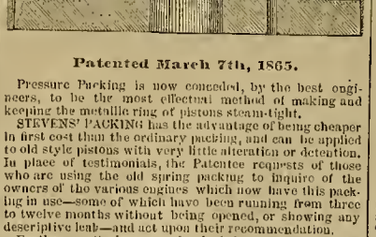
All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mill's.

For sale by TREADWELL & CO.,

3v12-3m Corner of Front and Market streets.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df ANDREW STEVENS.

FOR SALE!
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

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26v11tf 311 and 313 California street.

WATER WHEELS!

Equal to the Best Overshot Wheel

POWER PLEDGED

IN EXISTENCE.

LEFFEL'S
AMERICAN DOUBLE TURBINE

Is now manufactured by the Vulcan Iron Works Company, in this city, and orders for the same can be filled immediately. We have a large supply of the different sizes, from 10 inches to 30½. That we may know the proper sized Wheel you require, measure your water in the following way: Take the width of the stream, the average depth and the distance it flows in a minute.

All the Wheels already in use give universal satisfaction. For particulars send for a Circular.

This Wheel is especially adapted to mining purposes. It is light, and can be easily packed into the mountains. Wheels weighing from 100 to 300 pounds, will yield from 10 to 40 horse-power under a head of 25 or 30 feet. They are the cheapest wheel to set up known, as they are so arranged as to produce the greatest power possible from the water used.

Come and see them, or send for a Circular to

LEFFEL & MYERS,

At Vulcan Iron Works, office 137 and 139 First street, San Francisco. 4v11tf

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the PACIFIC FOUNDRY,

1v1 San Francisco.

Prater's Patent Concentrator

(Known as HUNCERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 DEVOE, DINSMORE & CO.

HUNT'S PATENT
Circular Sweep Horse-Powers,

For running Churns, Washing Machines, Grindstones, pumping water, sawing wood, and other light machinery. Price, $100, at the Factory.

HUNT'S PATENT SELF-REGULATING TREAD HORSE-POWER is superior to any machine of the kind in the market. Price, with Governor, all complete to set to work, at the Factory, $300. Manufactured by

E. O. HUNT,

7v10 28 Second street, San Francisco.

Important to Miners.

NEW PATENT ROASTING PROCESS.

I AM NOW PREPARED TO OFFER TO THE MINING community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A Furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day,

MORE COMPLETELY AND CHEAPER

Than any other Process. All the Sulphur is saved, by being converted into Bisulphide of Carbon, which is a valuable product, and will pay nearly all expenses.

For particulars, apply to

J. MOSHEIMER,

26v11-3m 423 Washington street.

SALMON'S
PROPELLOR AMALGAMATOR
—AND—
Challenge Settler

Has been in use and thoroughly tested, both in California and Nevada, with entire satisfaction to all parties concerned. These Machines are

Made entirely different from any others,

And with the same power will grind, amalgamate, settle and separate, more gold and silver ore than any others now in use. Manufactured at the SAN FRANCISCO FOUNDRY where Machines can be seen in operation. Address

9v11 J. & W. C. SALMON.

Economy in Advertising.—The MINING AND SCIENTIFIC PRESS is the best and most ECONOMICAL mining advertising medium in this city. Our terms are less than ONE HALF the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The PRESS contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

A CHOICE ADVERTISING MEDIUM.

This week we issne an edition of 5,000 copies of the Youths' Companion, every copy of which will be thoroughly scanned by more than one pair of sharp little eyes, and the contents of every page, from first to last, will be re-uttered by many active, lively tongues in the presence of over 4,000 of the best families in this city and State.

Although we are receiving many additional subscribers to our list in response to the new enterprise in which we have engaged, we cannot expect, with the present high cost of printing paper, and our very low terms, to receive sufficient money from subscriptions alone to furnish as good a journal as we have determined to publish for our patrons; so we have widened the columns of the paper and adopted smaller type, which admits more letters in each line, and many more lines in each column of the paper, that we may have room for a few more select advertisements in the Companion *without decreasing in the least* any class of reading matter.

Our little journal circulates in more families than any other weekly published in San Francisco. No advertisements of the least objectionable character will be received, and as but a limited space will be devoted to this department, our young friends can safely inform their storekeepers, and other business acquaintances of these important facts for the benefit of the paper and all concerned.

Remember, only a few columns of our regular issue will be devoted to advertising, and the more profitable that class of patronage is made the greater will be the outlay upon our reading columns.

Dewey & Co., Publishers.

February 23d, 1866.

NEW BOOK.

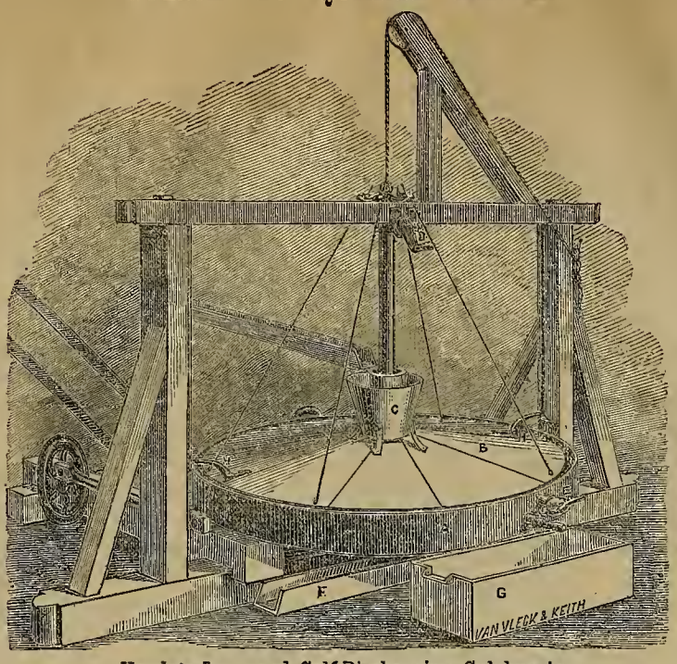
A Manual of Metallurgy, more particularly of the Precious Metals, including the Methods of Assaying them: By George Hogarth Makius, M. R. C. S., F. C. S., one of the Assayers of the Bank of England; Assayer to the Anglo-American Mints, and Lecturer upon Metallurgy at the Dental Hospital, London. Illustrated with fifty engravings.

We are indebted to Roman & Co., for a copy of the above "Manual of Metallurgy," a work designed more particularly for persons just commencing their acquaintance with the minerals and their metals. In addition to the strictly original matter contained in the work, the author has collected and arranged upon its pages, and brought together in the smallest practical space a large amount of information, which cannot fail of being of great service to the student whose avocations leave him but little time for extended reading upon such matters as are here treated upon. It is a work which should find a place in the library of every miner and millman in the State. We shall endeavor to allude to it more fully next week.

The Ione Company, at Grass Valley are taking out some very rich rock, and are developing their mine with a most commendable degree of energy. They have erected a ten-stamp mill, and as soon as lumber can be had, will add ten more stamps. The mine is easily worked, and is expected soon to repay its energetic proprietors for their outlay. The contractor and builder of the present mill is a young and promising mechanic, as the skill and energy displayed in its construction fully testifies. Only six weeks previous, the timber, which has now been constructed into a large building and mill, was growing in the forest; which, considering the state of the weather and roads, is of itself a feat worthy of the highest commendation.

The Blue Ledge, El Dorado County.—This Company's mill lately cleaned up a run of sixty tons of ore, obtaining thirty-one ounces of gold. This is the first crushing under the Company's new superintendent, Mr. A. M. Stetson. A large portion of the rock crushed was from the old heap, from which but little return was expected. We are informed that the company is now taking out very good rock, and such as will yield a much larger average than the above, although even that yield can be made to pay with the facilities which the company now possess for mining and milling. The Superintendent writes that he is now getting out rock in sufficient quantities to keep a 20-stamp mill running.

NOTICE TO QUARTZ MINERS.



Hendy's Improved Self-Discharging Sulphurets

PRATER CONCENTRATOR

Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " "
U. S. REESE RIVER MILL, Austin, " "
CARROL & ASPINWALL MILL, Reese River, Nevada.
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
BLUE LEDGE MILL, near Spanish Flat, El Dorado Co.
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, two of these Concentrators were ordered recently by Messrs. Goddard & Co., of this city, for their Mill (Independence Mill), near Sonora, Tuolumne County, which are now being fitted up at the Pacific Foundry. The parties have extensive experience in quartz machinery, and have concluded to use these Concentrators in preference to all others.

A further order for a Concentrator from Messrs. Bigelow & Bro., of this city, who are now using two Concentrators at the Coney Mill, Jackson, Amador County.

They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.

☞For explanation of the above engraving, and other particulars, send for a Circular.

JOSHUA HENDY,
No. 402 Montgomery street, Room 3, 4th floor.

8v12tf

A Condensed History of Steam.—About 280 years B. C. Hero of Alexandria formed a toy which exhibited some of the powers of steam and was moved by its power.

A. D. 540, Anthemius, an architect, arranged several cauldrons of water, each covered with the wide bottom of a leathern tube, which rose to a narrow top with pipes extended to the rafters of the adjoining building. A fire was kindled beneath the cauldrons, and the house was shaken by the efforts of the steam ascending the tubes. This is the first notice of the power of steam recorded.

In 1543, June 17, Blasco DeGaroy tried a steamboat of 209 tons with tolerable success at Barcelona, Spain. It consisted of a cauldron of boiling water and a moveable wheel on each side of the ship. It was laid aside as impracticable. A present, however, was made to Garoy.

In 1650, the first railroad was constructed at Newcastle-on-Tyne.

The first idea of a steam engine in England was in the Marquis of Worcester's "History of Invention," A. D. 1663.

In 1710 Mewcomer made the first steam engine in England.

In 1718 patents were granted to Savary for the first application of the steam engine.

In 1764 James Watt made the first perfect steam engine in England.

In 1736 Jonathan Hulls first set forth the idea of steam navigation.

In 1778 Thomas Paine first proposed the application in America.

In 1781 Marquis Jouffroy constructed a steamboat on the Saone.

In 1785 two Americans published a work on it.

In 1789 William Tymington made a voyage in one on the Forth and Clyde Canal.

In 1802 this experiment was repeated.

In 1782 Ramsey propelled a boat by steam at New York.

In 1787 John Fitch, of Connecticut, navigated a boat by a steam engine on the Delaware.

In 1793 Robert Fulton first began to apply his attention to steam.

In 1793 Oliver Evans, a native of Philadelphia, constructed a locomotive steam engine to travel on a turnpike road.

The first steam vessel that ever crossed the Atlantic was the Savannah, in the month of June, 1819, from Charleston to Liverpool.

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

The Moss Lead.—We mentioned, some weeks since, the departure of a party of miners under charge of Mr. C. D. Strong, the former superintendent of the Gould & Curry mine, to work the famous Moss lead, in Arizona. The company have been advised of the arrival of the party on the ground and the commencement of operations. They are all in good health and spirits, and pushing ahead finely with the work of development. This enterprise will soon lead to the development of other mines in that locality, the existence of a number of which is already known.

W. A. Goodyear. T. A. Blake.

GOODYEAR & BLAKE,

Civil and Mining Engineers

—AND—

Metallurgists.

Among others, refer by permission to—
Prof. Silliman New Haven Ct.
Dr. John Torrey, U. S. Assayer, New York City.
W. C. Ralston, D. O. Mills, Bank of California.
Barron & Co., San Francisc.
Address, P. O. Box 2,092, San Francisco, Cal. 9v12qr

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—OF—

SAN FRANCISCO.

Paris, New York and London Styles

For Spring and Summer, 1866,

Will be introduced

SATURDAY.....MARCH 3

—AT—

MEUSSDORFFER'S

Hat Manufactories,

Nos. 635 and 637 Commercial street.....San Francisco
No. 125 J street.....Sacramento
Corner D and Second streets.....Marysville

OUR STYLE IN MOLESKIN, for this season, is, we feel confident, the SUPERLATIVE OF ELEGANCE AND FINISH; our MERINO PINAUD and ST. CLOUD the most successful result of Parisian taste.

Especial attention also deserve our

CHELSEA,
CHESTER,
CRESCENT,
NEWPORT,
DERBY and
CLARENDON RESORTE.

☞ Call and see them. 9v12-3m

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

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XIII.—Natural History of Animal Kingdom.
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H. H. BANCROFT & CO.,

Booksellers and Stationers,

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City

BRASS AND BELL FOUNDER.

Cor. Market and First Sts., opposite Oriental Hotel, San Francisco.

Manufacturer of Brass, Zinc, and Anti-Friction or

Babbet Metal Castings;

CHURCH AND STEAMBOAT

BELLS,

TAVERN AND HAND BELLS AND GONGS,

FIRE ENGINES, FORCE AND LIFT PUMPS,

Steam, Liquor, Soda Oil, Water and Flange Cocks, and Valves of all descriptions, made and repaired. Hose and all other Joints, Spelter, Solder, and Copper Rivets, &c. Gauge Cocks, Cylinder Cocks, Oil Globes, Steam Whistles,

HYDRAULIC PIPES AND NOZZELS

For Mining purposes, Iron Steam Pipe furnished with Fittings, &c. Coupling Joints of all sizes. Particular attention paid to Distillery Work. Manufacturer of "Garratt's Patent Improved Journal Metal."

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A. GENSOUL,

PUBLISHER, IMPORTER AND DEALER IN

MAPS, ATLASES,

Charts, Guide-Books, Globes,

Books, Stationery, and Fancy Articles,

511 Montgomery street, between Commercial and Sacramento, San Francisco.

Agents and Dealers supplied on Liberal Terms.

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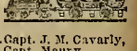
1st Premium, at Sacramento Fair.....1862
1st Premium, at S. F. Bay District....1863
1st Premium at Sacramento.....1863
1st Premium, at San Francisco.....1864
1st Premium, for Cordials.....1864
1st Premium, for Hygienic Bitters....1864

Awarded to

V. SQUARZA.

Pacific Mail Steamship Co.

The following Steamships will be dispatched on the following named days.



March 10th—SACRAMENTO.....Capt. J. M. Cavarly, Connecting with COSTA RICA, Capt. Maury.

March 19th—GOLDEN AGE.....Capt. E. L. Farnsworth. Connecting with NEW YORK, Capt. Horner.

March 30th—CONSTITUTION.....Capt. F. R. Baby, Connecting with HENRY CHAUNCEY, Capt. Gray.

From Folsom street Wharf

At 11 o'clock A. M., punctually to the hour,

For Panama.

Passengers will be conveyed from Panama to Aspinwall by the Panama Railroad Company, and from Aspinwall to New York in the splendid steamships of the PACIFIC MAIL STEAMSHIP COMPANY.

Steamers of this line will be dispatched the 10th, 19th and 30th of each month. When these dates fall on Sunday, the steamer will leave on Saturday preceding.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departure of 19th connects with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and steamer running to Guayaquil, touching at Tumaco, the port of the new mines, and P. R. R. Co.'s steamer for Central America.

Cabin passengers will be berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For merchandise freight apply to Wells, Fargo & Co.

For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.

OLIVER ELDRIDGE, Agent.

Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors.

SAN FRANCISCO, SATURDAY, MARCH 10, 1866.

VOLUME XII. Number 10.

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MECHANICS' INSTITUTE ELECTION.

The annual election of the Mechanics' Institute, last Monday, proved quite a spirited affair, and resulted in the choice of equal numbers on the regular and opposition tickets. The president elect, Mr. H J. Booth, is a thorough mechanic and business man, being one of the most prominent and successful foundrymen in this city or State. Although Mr. Booth lost some votes through his reported opposition to the eight hour law, the election was by no means generally influenced by that question.

The votes cast were very much scratched, the hardest contested offices being for president, vice president, and treasurer. Following is the vote:

Regular Nominations.		*Opposition Nominations.*	
FOR PRESIDENT.			
H. J. Booth	*314	Charles M. Plum	292
FOR VICE PRESIDENT.			
D. A. Macdonald	*333	A. C. Austin	272
FOR RECORDING SECRETARY.			
Robert Riddle	284	Jason B. Pierce	*327
FOR CORRESPONDING SECRETARY.			
A. S. Hallidie	276	A. T. Dewey	*327
FOR TREASURER.			
Edward Nunan	262	Thomas Young	*349
FOR DIRECTORS.			
James B. Johnson	501	Joseph McGill	*313
P. J. O'Connor	284	N. W. Spaulding	*475
Henry Webb	*314	W. W. Hanscom	284
John W. Farren	*323	Chas. Elliott	277
F. G. Edwards	173	R. S. Eels	275
James Spiers	*305	Hiram Rosekrans	*229
Wm. T. Garratt	*336	W. C. Pease	296

*Elected.

The election brought in about 225 new members, each of whom paid an admission fee of $5, and one quarter's dues in advance, $1.50. By the receipts from this source, and from payment of back dues, the Institute must have realized some $1,600.

Although a rush of new members into any association for the purpose of voting is a most doubtful acquisition, we are glad to note that many excellent names appear in the list of those who joined the Institute on Monday.

On Thursday evening a special meeting of the Institute was held, and the new officers duly installed. The president made a brief and appropriate speech, alluding to the present influence of the society, and evincing an earnest determination to advance its best interests. A committee was appointed to report resolutions at the next meeting, complimenting the past officers for their able and faithful services.

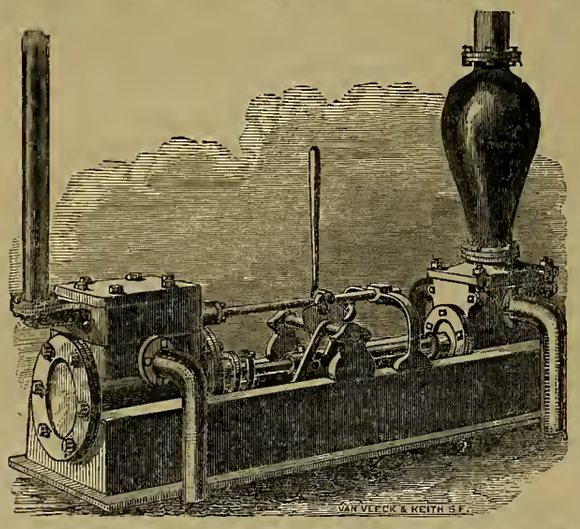
Our evening cotemporary, the *Bulletin*, gives the following approbative paragraph:

"The new officers elect are all able and energetic men, and the Institute cannot fail to thrive under their management. It is also due to the retiring officers to say, that their management of the affairs of the Institute during the past year has been eminently wise and judicious, and that in no year since the foundation of the Mechanics' Institute has it been more prosperous than under their administration."

HANSBROW'S DOUBLE ACTING, HORIZONTAL PUMPING ENGINE.

Any substantial improvement in machinery for pumping in mines must be admitted at this time to be of great importance. The engraving connected with this article represents a new style of pumping engines, just completed at the Miners' Foundry, in this city, for Hon. Thomas Hansbrow, of Sacramento, the ingenious inventor of the world-renowned challenge pump. We copy the following description from the annual circular of the Miners' Foundry, now in press in the MINING AND SCIENTIFIC PRESS book and job printing office.

This engine is applicable for feeding boilers, irrigation, and mining purposes, and can be



HANSBROW'S DOUBLE ACTING, HORIZONTAL, HIGH PRESSURE, PUMPING ENGINE.

used as a steam fire engine, as it possesses great forcing power, and can be readily mounted upon wheels. The steam cylinder, which will be seen upon the left of the engraving, is 10-inch diameter; the water cylinder, upon the right, is 6-inch diameter; length of stroke 10-inch; diameter of suction and discharge pipe, each 4 inches; capacity of the pump 10,000 gallons per hour; weight 2,200 pounds; price $950.

The pump valves are of the same construction as those of Hansbrow's other celebrated patent pumps. The power is communicated directly from the steam cylinder to the pump by means of the piston rod, on one end of which is the steam piston, and on the other end the piston of the pump. There is no crank, shaft or fly-wheel, and the valve receives its motion from the piston rod by a very simple arrangement of rock-lever and tappets.

The steam cylinder, pump cylinder and bed plate, form one casting, thereby making it extremely simple, not liable to get out of order, and most substantial in its construction. It requires but little foundation, needs no setting, and can be secured to any beam or planking by screws supplied for the purpose.

BIG BEND.—There is just now quite a rush for the Big Bend mines. There will soon be a big rush back again. The Big Bend will be apt to prove a big break to many a poor miner.

THE NATIONAL LINCOLN MONUMENT.—The State Superintendent of Public Instruction has caused a number of blank books to be prepared, and placed in the hands of the teachers of the public schools, for the enrollment of the names of such pupils and teachers as may feel able and disposed to contribute toward the National Lincoln Monument Fund. It is desired to make this subscription as general as possible. A thousand dollars from 10,000 children, at ten cents each, would be much more acceptable than the same amount from one hundred people who might subscribe one dollar each. The object is not so much the amount which may be raised, as to have all the pupils take an interest in this national work of rearing a monument to a great and good man who has fallen in behalf of a country he loved, and by which he was beloved. Every pupil who subscribes will have his name enrolled as a contributor. The books which have been sent to the different schools, will be forwarded to the State Superintendent, and by him be sent to the National Committee, who will cause them to be deposited in the archives of the Association, when the names of the California schoolchildren and all other contributors to the Fund will be sacredly preserved to all future time.

DEPARTURE.—John Arthur Phillips, Esq., the eminent English Metallurgist, leaves California on the steamer of to-day. We understand that he proposes to embody the results of his observations on this coast in a book, which will be published soon after his return home. We bespeak a large edition for California.

A FLORAL MONSTROSITY.—There has been on exhibition the past week at Keith's drug store, on Montgomery street, a floral monstrosity in the shape of a triple Egyptian lily, or rather three lilies growing from a single stem like the trefoil. It was grown in a garden in this city.

TREASURE FROM SHASTA.—The treasure shipments from Shasta for the month of February, were $98,589.

THE LINCOLN SCHOOL LIBRARY.—It will be recollected that the Lincoln School boys recently gave a public exhibition from which they realized about $800 for the purchasing of additional books for the library connected with that School. We learn from Mr. Hoitt, the Principal, that about half the money has been expended in this city. The books so obtained are already in the school building, and the teachers met a few evenings since for the purpose of putting good substantial covers on them. The balance of the money has been placed in the hands of Roman & Co., for the purchase, in New York, of such books as cannot be obtained here. The selections will be made with the greatest care by a competent person. Cases will soon be made so that the books can be put in position for use by the pupils. We understand the library already contains the best lot of books for teacher's reference to be found in this city.

SCHOOL VACATION.—There will be a vacation of the Public Schools of this city for one week, commencing with Monday next. It was stated at the meeting of the Board of Education, on Tuesday evening last, that there was only about $15,000 in the School Fund. If that is so—and it very probably is—it is to be hoped that the Legislature will take such action the coming week as to secure the continuance of the schools without any other interruption than the proposed vacation of six days. To accomplish this the Legislature may either authorize the issuance of bonds, or they may pass a special act allowing demands for service this year to be paid out of next year's funds. Either will accomplish the purpose; and either course may very properly be produced. At all events we trust the Legislature will take such steps as will enable the Board of Education to keep the schools along without interruption.

THE SPRING VALLEY SCHOOL.—Mr. and Mrs. Marks, Miss Morton and Miss Van Reynegan were transferred to the new Spring Valley School by the action of the Board of Education on Tuesday evening last. It will be recollected that that new, commodious and well planned house recently constructed for this school, at the corner of Broadway and Larkin streets, was dedicated a short time since. A large number of the friends of the school were in attendance, and we are glad to be able to say that a handsome sum was realized for the benefit of the school. The money will be expended in scientific apparatus for the same.

APPOINTED.—Mr. Charles Bonner, formerly Superintendent of the Gould & Curry, has been appointed Superintendent of the Savage, and took charge of the works on Tuesday last. Mr. Bonner is well acquainted with the Comstock lead, and being also quite familiar with the Savage claim, a better man could not have been found to succeed Captain Curtis.

NOT BAD.—Bullion to the value of $475,491.63 was shipped from the office of Wells, Fargo & Co. Gold Hill, Nev., during the month of February.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

BY W. A. GOODYEAR.

[CONTINUED FROM PAGE 130.]

Let us now look at some of the points relating to the wear and grinding effect of certain plates as investigated in the Hand Book.

I adopt the two *definitions* given under "Laws of Grinding," 1 and 2, page 102. Instead, however, of taking, without modification, the law given under 3, as it is there expressed, I will modify its statement as follows:

The *wear* (that is, the thickness of the layer of material worn from the surface) in *any* direction, at any point of grinding surfaces of uniform hardness, is proportional to the product of the pressure at that point in the given direction, into the distance passed over, *provided* that the surfaces be of such a form that, this law holding true, *the plates can follow each other and remain in contact as they wear away;* otherwise the law does not hold.

I will now discuss, to some extent, the proposition attempted to be proved upon page 103 of the Hand Book.

If I understand the author correctly, it is there assumed that in tractory conoidal plates, of uniform hardness, the *pressure* in the direction of the normal to the surface is constant (which is true *when the upper plate revolves*), and that, *therefore*, the grinding surface will wear into one, whose meridian curve is so related in form and position to the meridian curve of the original surface (that is, the tractory), that the distance intercepted between the two curves, on the normal to the tractory at the point x, y, shall be proportional to the ordinate y (which is *not* true), and it is then attempted to prove that the distance intercepted between these two curves, on a straight line *parallel to the axis of* x, is constant, and, therefore, that the secondary curve is a tractory equal to the first.

(I still use x and y in the same sense as heretofore, viz., as representing the coördinates of points in the tractory when the origin is at F, in the figure on page 103 of the Hand Book.)

I will now show that if the distance intercepted between a tractory and a secondary curve, on the normal to the tractory at the point x, y, be proportional to the ordinate y of the tractory, then the secondary curve is *not* a tractory, and therefore that the distance intercepted between the two curves, on a line parallel to the axis of x, is *not* constant; for if it were the curve would be a tractory.

Consider a point x, y, of the tractory. If X and Y be the running coördinates of the normal at this point, then the equation of the normal is

(51) $Y - y = -\frac{dx}{dy}(X - x)$. This normal will cut the secondary curve in a point x', y', whose coördinates must, therefore, satisfy (51). Hence,

(52) $y' - y = -\frac{dx}{dy}(x' - x)$. The distance between the points x, y, and x', y', is $\sqrt{(x'-x)^2 + (y'-y)^2}$. This distance is, by supposition, proportional to the ordinate y; therefore,

(53) $\sqrt{(x'-x)^2 + (y'-y)^2} = by$, where b is constant. Substitute in (52) the known value of $\frac{dx}{dy}$ in terms of y, thus,

(54) $y' - y = \mp \frac{\sqrt{a^2 - y^2}}{y}(x' - x)$.

If, now, between (53), (54), and (18), we eliminate x and y, we shall obtain an equation expressing the relation between x' and y', which is the equation to the secondary curve in question.

The elimination of x and y in this case, however, involves the resolution of an equation of the fourth degree. If, for example, we obtain the value of $(x'-x)$ from (54), and substitute this in (53), we are led to the equation

(55) $b^2y^4 - a^2(b^2-1)y^2 - 2a^2y'y + a^2y'^2 = 0$, an equation of the fourth degree in y, which, if resolved, would give us four complex expressions for as many different values of y.

If, then, from (53) or (54) the values of x corresponding to these values of y were obtained, and these values of x and y substituted in (18), we should obtain the equation of the secondary curve.

I have not resolved equation (55), and have, therefore, not obtained the equation of the secondary curve, as the operations involved would be tedious, and the resulting expressions would be very complex.

The final equation, however, would represent a curve having eight branches—that is, two branches for each branch of the tractory—one lying upon the concave side, and the other upon the convex side of the latter. This is as it should be, since there are two points in the normal at x, y—one on each side of the tractory—which will satisfy the conditions of equations (52) and (53).

Let us now consider a single branch of the tractory and the corresponding pair of branches of the secondary curve, and let us suppose two other tractories described equal and parallel with the first, but beginning at the points $y = a, x = \pm ba$, instead of the point $y = a, x = 0$.

It may easily be shown, geometrically, by constructing the curves under the above conditions (as I have done for the particular case $b = 1$): first, that the branch of the secondary curve lying upon the convex side of the original tractory begins at the point $y = a, x = -ba$, where it is tangent to the tractory which begins at the same point, but that the balance of this branch of the secondary curve, though lying below the line $y = a$, does not coincide with the tractory to which it is tangent, but lies upon the *convex* side of it; second, that the branch of the secondary curve, lying upon the concave side of the original tractory, begins at the point $y = a, x = ba$, but that beginning here, it immediately rises *above* the line $y = a$, forms an unclosed loop or *hook*, and then descending, crosses the line $y = a$, and continues on, lying then *between* the original tractory and the one which begins at the point $y = a, x = ba$, instead of coinciding with the latter.

The construction which I have made then (and which any one else can make at pleasure), shows that at least in the case where $b = 1$, the secondary curve is not is not a tractory. The question now arises, whether for other values of b the case may not be different.

ERRATUM.—Instead of $\times$ in equation (35) read $+$.

[To be Continued.]

THE two kings that rule America—Jo-king and Smo-king.

[Written for the Mining and Scientific Press.]

From Our Regular Correspondent.

EDITORS PRESS: This place, which has been my center of operations for the past two weeks, is a respectably decayed mining town of the olden time, still retaining its name and organization; but whose glory has long since passed away, with the richness of the gulches and river placers, which once made it famous throughout the State and the whole coast. But though I speak of it as decayed, I do not wish to say that business has entirely deserted the place, or that its streets are lined with empty houses like some of the ex-mining towns of the present day. The glory of the ancient placers is still perpetuated, though feebly, by numerous deep shaft claims, and a few hydraulic diggings, which together with its being the county seat of Calaveras county, keep up quite a respectable show of business. It is only *respectably* decayed.

The principal mining now being carried on in this vicinity is deep placer mining; the gold being obtained from deposits of gravel supposed to be the beds of an ancient system of rivers, now covered by deposits of lava and other volcanic *debris*. The most important enterprise of this kind is the "American Shaft," owned by Messrs. Paul, Larnard & Holbrook, located on Chili Gulch, two miles below this place. The channel was struck at a depth of 100 feet, at which depth a large stream of water was tapped which compelled the owners to suspend operations for some time, and was only removed at an expense of over $30,000. When the water was once checked, there was no further trouble, and the mine is now in successful operation, employing upwards of thirty men, and ten stamps for crushing the cement. The hoisting, pumping, and stamping machinery, are all driven by the steam engine. The daily product of the mine is from $150 to $200 per day, yielding a very handsome profit to the owners. The deepest shaft in this section is that on the claim of

SQUIRES & COMPANY,

Which is about 165 feet in depth. The bed of cement gravel in which the gold is found varies from a few inches to four or five feet in depth, averaging about two feet, and pays about ten dollars per ton, by washing in sluices. The width of the channel is uncertain, but is known to be upwards of fifty feet, the rock on which it rests being ordinary slate. Some of these claims are opened by tunnels driven into the sides of the hills, often at great expense. Among those now in progress may be mentioned

THE INDIAN RAVINE TUNNEL,

Which is being driven into Stockton Ridge, about three miles below Mokelumne Hill, by Messrs. Paul & Haerschner, and other citizens of this town. It is estimated that to reach the channel a rim of slate 1,100 feet in thickness will have to be penetrated. The work has been going on nearly two years, and the tunnel is now in 430 feet, the rock having been very hard thus far. It is estimated that it can be finished in two years more, as the slate is expected to be softer, as the work progresses. There are a few hydraulic claims also at work and many of them are doing quite well, one of these, that of Messrs. Shaw & Co., is immensely rich. It is situated on the west side of Chili Gulch, about a mile and a half below Mokelumne Hill.

THE "OPAL CLAIMS" OF STOCKTON HILL.

Considerable excitement has been awakened at different times by the discovery on Stockton Hill, near this place, of some beautiful concretions, believed at the time to be opals, but which subsequent observations have proved to be agates, some of which are of marvelous beauty, and doubtless of considerable value, though there is no market for them in this country. A company was finally organized among the French residents of Mokelumne Hill and vicinity, and the search commenced in an earnest and systematic manner. The work is done by a Mr. Neven, who showed me the excavations, and explained the different processes employed. The claim of the company is known as the *Occulis Mundi*, (light of the world), and is 5,000 feet in extent along the northern slope of Stockton Hill, and extends to the top of the same. Several tunnels have been driven at different points along the hill side, the longest of which is in 150 feet. The stones are found in a ledge of grayish colored gravel or clay, from three to six inches in thickness, having a slight inclination to the northwest, of about two degrees from a horizontal plane. Each stone is encased in a brittle white substance, supposed by Mr. Neven and others to be produced by the decomposition of the stone itself by the action of chemical agents contained in the water in the hill. Throughout the whole extent of the claim the same regular formation exists, the line of the strata being easily traced, and perfectly straight and parallel. Above the ledge is a belt of "trachyte" which is traversed at a hight of five feet above the ledge, by two strata of white fieldspathic clay, each about one inch in thickness, giving to the sides of the tunnel a regularity of appearance, as if they had been purposely striped by the hand of man.

Some very beautiful stones have also been found in another hill east of town, and about a mile from the *Occulis Mundi*. These are principally "moss-agates," many of which are exceedingly beautiful. They are found in veins traversing a stratum of hard ferruginous, volcanic rock, in which they are so firmly imbedded as often to break before they will be separated from it. Many of the stones from both these claims have been cut and polished by Dr. H. M. Stuart, of Mokelumne Hill, to whom the company are indebted for the beautiful display of cut stones made by them last fall, at the Mechanics' Fair at San Francisco. One of these, a fine "moss-agate" of about two carats in weight, is now worn in a ring by Mr. Geo. Leger, one of the owners of the *Occulis Mundi* who takes great pleasure in exhibiting it to the curious. I am indebted to the Superintendent, Mr. Neven, for some very fine specimens of the stones from these claims, some of which I expect to preserve during life, as pleasing reminders of a day very agreeably spent.

On the third day of my stay at Mokelumne Hill I started in company with a young friend, a son of Mr. Thomas Loutlett of this place, to visit the mine of the "Campo Seco Copper Mining Company," situated near Campo Seco and fourteen miles from here. A walk of eight miles brought us to the residence of the Messrs. Young, near the Calaveras lime-kilns, who very kindly volunteered to furnish us with saddle-horses for the remainder of our journey, which offer, after such a walk, we were not at all loth to accept, and after visiting the mine, and the smelting works near, we came back a little after dark, to the residence of the Messrs. Young, where we were very hospitably entertained for the night, and returned to town on the following day, well pleased with our trip, and with what we had seen.

THE CAMPO SECO COPPER MINE

Is owned by a joint stock company of the same name, and is superintended by Mr. D. L. Morril, under whose able management, the mine is now more than paying its expenses, and will probably soon be in a dividend-paying condition. It is opened at present to a depth of 200 feet, at which depth the vein of ore, a solid mass of sulphides of iron and copper, unmixed with slate, is twenty-three feet in width, about one-sixth of which is estimated by Mr. M. to be shipping ors, assaying from twelve to twenty three per cent. copper. The lower grades of ore are sold to the proprietors of the smelting works located near. The shaft is not sunk on the vein, but west of it, and drifts are run from it to the vein at points where it is desired to open levels. The body of ore in the 150-foot level, is forty feet east of the shaft, and is twenty-three feet in width, and is divided at the end of a drift extending eighty-five feet northward from the shaft by a "horse" of slate. This horse is not found in the lower level, but the vein is of uniform width and character throughout the extent of its drift. Besides the twenty-three feet of ore, the vein contains a mass of slate somewhat cupriferous, of unknown width, the western or "hanging wall," having never been reached. It is believed that another body of ore will be found under this wall, and acting under this belief, a drift has been started on the 200-foot level for the purpose of reaching it. This drift has been continued 120 feet, and is still in the vein. It has cut a few narrow strata of rich copper ore, but has not as yet developed any very important deposits. One thousand tons of ore were shipped from this mine during the past year, averaging 16 to 17 per cent., and it is confidently believed that the amount will be much increased during the present one. The hoisting works are driven by water power and are capable of raising thirty tons of ore daily. It is intended to erect steam works in a short time, as the present machinery is entirely insufficient for the wants of the mine.

After passing through the mine we went in company with Mr. Morril to visit the works of

THE TAUNTON SMELTING COMPANY,

Located on the Mokelumne river, three fourths of a mile below the Campo Seco mine, with which they are connected by a railroad, on which the cars are drawn by a horse. The

works ore superintended by Mr. West, and were first set in operation in August 1865. They consist of two furnaces, of a style similar to those described by Dr. De Heirry in his articles on "Metallurgy of Copper," published in the Press last year. One of these was run for forty-three days, last fall, during which time it produced 109 tons of matt, and was pronounced a success; but as it was impossible to obtain a sufficient supply of coal for the winter, before the rains set in, it was found necessary to suspend operations until next spring, when it is expected the furnace will again be fired up and kept in constant operation. The blast is furnished by a McKenzie's patent blower, which is driven by water power, and is found to work like a charm. It requires about eight horse-power to each furnace. Each furnace consumes daily from 200 to 250 bushels of charcoal, costing here twenty cents per bushel, and employs six men, besides outside laborers, employed in the process of preliminary roasting, which is performed in kilns, consisting of immense heaps of ore, at the bottom of which is a small layer of wood. This process drives off a large proportion of the sulphur in the ore and is performed at a very slight expense, the entire cost of this operation being estimated at one dollar per ton.

After an hour very pleasantly and profitably spent in looking at the works, and in conversation with Mr. West, we leaped into the car and were soon at the mine, where we mounted our horses to return.

A PEDESTRIAN TOUR.

I have this evening returned from a pedestrian tour of a week's duration through the copper mining districts in the lower part of the county, which I found with few exceptions in a deplorable state of decay and stagnation. I left here last Friday morning and proceeded to Jenny Lind, where I found some of my former acquaintances and the old subscribers for the Press; but with the exception of one or two, who were away from town at the time, they were all "dead broke," and the village seemed to be completely played out. After putting up for the night with the worst hotel accommodations I have ever found in California, I left in the morning for Brushville. This place shares much of the dullness of its sister town, but as I found here many of the acquaintances whom I had met on former visits my stay was much more agreeable. Copper prospecting has long since been abandoned, on account of want of means, while the only gold quartz mine in the place, is that of Messrs. Austin & Hathaway; having been sold to parties who have not yet arrived to take possession, business here is confined entirely to placer mining. I here met my old friends, Messrs. Gage & Eddy, and known among the most enterprising prospectors in the county, but who are now engaged in placer mining. From them I received a warm welcome, and I accepted with pleasure the kind invitation of Mr. Gage to pass the Sabbath with him at his residence, and in the society of himself and his very interesting family. The time passed so pleasantly, that for a time I forgot the dullness of business and the cares and fatigues of travel, and seemed to be enjoying the comforts and associations of home in a civilized and Christain land. But all pleasures are fleeting, Monday morning came, and my journey must be resumed; so bidding a reluctant good-bye to my kind host and his family, I set out on the road to the Caledonia copper mine, located seven miles east of Brushville, and twelve miles north of Copperopolis, on the Salt Spring Valley and Mokelumne road. The mine was not in operation at the time of my visit, other work having stopped for the purpose of putting in a new pump, one of Hooker's patent, which had just been purchased. A further walk of eight miles brought me to the Kentucky mine, Mr. Lewis Superintendent, who very kindly entertained me for the night.

NEW INVENTIONS.

On Tuesday morning I walked to Copperopolis where I spent two days, making the acquaintance of some very pleasant people, and examining some very valuable inventions, which I found had lately been made here. One of these is a safety cage, which seems to have points of superiority over any now in use, and is the invention of Mr. Wm. N. Shaw, blacksmith of the Union mine. The other is a scroll-saw, invented by Mr. Brown, who intends to apply immediately for a patent. This invention dispenses with the clumsy "sash" attachment, which is used in all other machines of this kind, thus saving a large amount of friction, and without any additional strain upon the saw, giving the full size of the working table free from obstructions, for turning and guiding the work.

COPPEROPOLIS

Is a thriving place, but suffers a great drawback from the fact of all the wealth being in the hands of a few. These few, however, show a very commendable degree of liberality in providing for the moral and intellectual wants of those who are necessarily more or less dependent upon them. A fine public school-house has lately been erected at a cost of $3,300, of which $1,500 is the gift of Mr. Thomas Hardy of the Union Co. In the principal of the school, Mr. F. F. Bacon, I found an old friend, whom I was truly glad to meet. I was introduced by him to the Rev. M. B. Starr, of the First Congregational Church, with whom I visited a new church-building now in course of erection for the use of that society. The building is of brick, in the sacred gothic style, and will cost, when completed, from six to eight thousand dollars. It is situated in the center of a fine block of ground, having a street on every side, which is the gift of Mr. C. F. Meader, who also contributes largely towards the cost of the building, showing by his liberality in a good cause that he is every way worthy of the great wealth which he has won by his enterprise and good fortune. The place also supports a weekly paper, devoted to advertising, politics, and general news, and shows in almost all other departments, every characteristic of a prosperous and enterprising town.

Owing to the shortness of my stay I did not have an opportunity of going through the mines which have given the place its business and fame, but as I hope to visit it again in a few weeks, and probably make a longer stay, I shall notice them further at that time.

I shall notice in a future letter the quartz ledges of Mokelumne Hill and vicinity, on which I am not sufficiently posted as yet.

D.

Mokelumne Hill, Feb. 15, 1866.

[Written for the Mining and Scientific Press.]

Pattison's Mining Bill in Mono County—A Delayed Letter.

Messrs. Editors:—Thanks be to the Mining and Scientific Press! Such was the feeling of every miner in this section, when, on last Thursday evening's stage, arrived your valuable journal of the 6th instant. It contained the Hon. Mr. Pattison's bill for "An Act for Acquiring and Maintaining Titles to Quartz Mining Claims."

Unless you had, with usual enterprise, published this proposed law in full, we would all have been in ignorance of its provisions until too late. It was scanned over, and then thoroughly canvassed, and was universally decided to be ruinous to the interests of the quartz mines of Mono.

Calls for a public meeting were written out, and sent to the neighboring districts, and a larger gathering of miners scarcely ever assembled than met to-day at Purtzwick. Representatives were there from Montgomery, Indian, and almost every district in this end of the county. Will Hicks Graham, of Montgomery, was selected Chairman, and T. A. Cutter, of Blind Springs, Secretary. After a lengthy discussion, which was all one way—opposition to the bill—a committee representing five different mining districts was appointed. They occupied several hours in the further consideration of the merits of the bill, and reported against it, for the following reasons: First, that in different localities the extent of the claims must naturally be different. Second, that it is impossible to trace a ledge in three days, least of all mark and stake it as required by law. Third, that in this county it is impossible in the winter season to either visit or send to the county seat (Bridgport) and have the claims recorded. Fourth, for the same reason, the necessary affidavit of work done could not be filed in time; that the storms would prevent such works, and in many cases the Indians, by driving the whites from the claims, have obliged the miners (as in White Mountain district) to suspend operations. Further, our present mining laws of the districts require now an ample and sufficient amount of labor to be performed. Fifth, the miners here are opposed to further taxation in the shape of licenses; but believe that if it is necessary to obtain a revenue from the mines, it should be from the amount received on sales of ledges and from the products therefrom; they claim that the business of prospecting is a most arduous one, and in many cases a question of chance only, and that it should be fostered and encouraged, and not made subject to onerous taxation. As a whole, the miners of this county believe that our present system of district mining regulations is all they want, and therefore simply desire the assembled wisdom of the State to leave them alone.

The report of the committee was unanimously adopted, as well as a resolution instructing the senators and representatives from this district to oppose the entire bill, or at all events to have Mono county excepted from its provisions.

The meeting also adopted a resolution, thanking the Mining and Scientific Press for its watchful care over the interests of the miners.

Of one thing you can rest assured, a more unpopular bill, as far at least as this section of the county is concerned, was never introduced, and we shall all breathe easier when it is defeated.

There is but a few moments' time until the express leaves. The Cornucopia company have gone through the iron streak, and again struck the mineral; it is very rich, and looks better than ever.

The Sierra Blanc are putting up cabins and blacksmiths' shops at each of their claims. They are working seven of them, and all look well, particularly the Crocker, where they are now taking out fine pay rock.

The Diana, with their little 4-stamp mill, (about as big as you could pack in a good-size trunk.) forward, to-day, three hundred pounds of bullion, the result of two weeks' work.

Everything is going along smoothly, all are in fine spirits, and there is not a man out of employment who will work.

In haste, yours truly, X.

Purtzwick, Blind Spring District, Mono County, January 14, 1866.

[Written for the Mining and Scientific Press.]

Mammoth District, Nye County, Nevada.

Editors Mining and Scientific Press:—That a mining district so rich and extensive as Mammoth, should exist so near and be so little known, is truly a matter of surprise to the visitor here. The district was discovered two years ago, and most of the pioneers remain here. They appear to be an exception to most of our prospectors; having settled down to develop their mines in good earnest, caring but little what is going on in other parts.

The district is situated in the Mammoth range of mountains (Nye county), about sixty miles S. W. from Austin, ten miles due west from Ione, and only thirty miles from or south of the overland road, the nearest accessible point on which is White Rock station. The district is ten miles square, embracing both the east and west slopes of the range.

ITS GEOLOGY.

At the base of the east slope the formation is phorphyritic; ascending very gradually west, the formation changes alternately to greenstone and primitive limestone. On the western slope we first encounter green stone, changing to slate at the base. Innumerable lodes traverse (uniformly north and south) each formation for a distance of two and a half miles, then disappear, trachitic rocks taking the place of the greenstone and slate.

ITS MINERAL VEINS.

The lodes on the east side have been the most worked, although there are many on the west extremely rich in gold at the outcrop, free gold being plainly seen throughout the rock, which is much decomposed. There are others remarkably rich in copper ore, of the peacock variety, containing in addition considerable gold and silver. On this slope are also two immense lodes of magnetic iron, sixty to seventy feet in width, outcropping for twelve or fourteen hundred feet. This ore is very pure, much of it yielding 85 per cent., and the whole mass above 60 per cent. These iron lodes, or beds, are so extensive that ages will be required to extract the ore in sight, Surrounding these mines, and for many miles north and south, is one of the most extensive tracts of nut pine in Nevada.

Here seems to be at once overcome one of the greatest obstacles to the rapid development of this vast silver region—the cost of machinery for new mills, and that to take the place of those worn out. Machinery can here be cast from the furnace direct, at less than half the cost of transportation from California.

This district is remarkable for its great number of argentiferous lodes, similar in character, and all carrying pay ore from the surface.—They are generally large and well defined, many of them outcropping for a distance of three or four thousand feet. All of them have the same general trend—north and south. The ores are very tractable, being unusually free from the baser metals. They are chiefly of the chloride variety, at or near the surface, invariably changing to sulphurets as a greater depth is attained. The chloride ore usually extends down 25 to 30 feet, although siliceous sulphuret, in connection with the above, is met with in many of the lodes from near the surface. (I speak only of the predominating ores; although every known variety and combination of silver exists here.) There are thirty or more lodes opened to depths ranging from thirty to eighty feet; three or four have reached one hundred feet; two considerably more than one hundred feet, and a great number from ten to twenty-five feet; in every instance, with the deeper ones, there is the unmistakeable evidence of permanancy, and of extensive mines of sulphuret ore of high grade. Two or three companies have reached the Ruby ore, heretofore only found in the Austin mines in any great quantities. Should the highly concentrated ores peculiar to the veins of Austin occur here, generally, (as they already have in some of the deeper shafts) there is no estimating the wealth of this district. Considering the great power of these lodes, it will be vast indeed.

MINES BEING OPENED.

Along the line of junction, between the porphyry and greenstone, are some particularly fine claims, among which are (beginning south) the Silver Cloud, Uncle Sam, Almaden, Erie, Josephine, Hatch & Graham, and Gould & Curry; with the exception of the first, they all contain precisely similar ore, and possibly belong to one mother vein. From all the above, working tests have been obtained, at the Austin and other mills, which prove them to be of great value for their top ores alone, having yielded from $80 to $300 per ton, and the first mentioned much more—something near $550, I am told.

The next east, is the Keyetone belt, in which is the Keystone (beginning north), Silas Wright, Enterprise, Yolo, Ellsworth, Fleg, Knickerbocker Series, Rough Diamond Series, Pearl, Excelsior, etc. In the next belt east, we find the Secremento, Vigilante, Sabine, Martin. Still further east, is the Live Oak belt, containing the Live Oak group—El Dorado, Yuba, Huron, Juanita, Northern Light, Cactus, and many others. From many of them average lots of ore have been worked, yielding from $80 to $250 per ton; in no instance less than the former sum.

It must not be supposed this is even an approximate of the number of lodes in the district; "their name is legion." In due time they will commend a hearing by the tide of bullion that will flow from Nye county, when the mills now in course of construction and in contemplation are running. At present the mills of Mammoth consist of one small three stamp, nearly completed, owned by W. T. Jones, an early settler here; and one crusher or grinder, about ready to start. The latter is owned by Henry Van Horn. These, with several larger ones to be put up in the spring, can run on ore already in sight, or proved to exist, for years. Mills cannot be in advance of the development of the mines here, for pay ore is found in abundance at the surface.

In a broad cañon, convenient to the the mines and adjoining, the two towns of Weston and Ellsworth are laid out. They contain forty or fifty well built houses, and are rapidly building up, notwithstanding the cold weather and snow. Wood and water are abundant here; the supply of the former is better than in any mining district I have visited in Nevada. The entire range of mountains north and south is densely clothed with juniper and nut pine of superior growth. With all this in view, who shall say Mammoth district is not one of the many spots of promise in silver-ribbed Nevada

A. J. H.

Weston, February, 1866.

Boasting.—People who are always talking about what they can do, are generally found to be the most inefficient when the time comes for action. The Spaniards illustrate this fact by a little fable. In Spain there is a small bird called St. Martin's Bird, about the size of a wren, with long, slender legs. They say that one hot Summer day this little bird lay down to enjoy the sunshine at the foot of a tree, and raising its long legs upward, said: "What do I care; if the sky were to fall now, I could hold it up with my legs!" At that very moment a leaf fell down from the tree, and the bird, frightened nearly to death, flew away, screaming, "Oh, St. Martin, St. Martin, come and help your little bird!"

A Brave Boy.—A few days since a little boy, Willie Soule, son of Dr. A. G. Soule, fell from the balcony, in the rear of his father's office on Kearny street, in this city, to the ground, a distance of over thirty feet. No one saw him fall; and it is supposed he must have lain insensible fully five minutes before he was noticed. He was taken home immediately, when it was found that one of his legs was broken, and he was otherwise seriously injured. He bore the pain of setting his limb like a little hero. Looking up into the face of his mother, who was standing by weeping, he said "Don't cry, mother, it's not so bad as if I'd been killed." After the leg had been set he said: "Father, I don't think I can go to school to-morrow."

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Monday, March 5.

24 sbs Ophir at 500 per foot.
36 shs Ophir at 525@530 per foot.
422 shs Ophir at 540@550 per share.
156 shs Ophir at 555 per foot.
168 shs Ophir at 560@562½ per foot.
24 sbs Ophir at 565 per foot.
1 sb Savage at 965 per foot, b 10.
1 sh Savage at 965 per foot, b 5.
4 sbs Savage at 960@965 per foot.
5 sbs Savage at 970@975 per foot.
2 shs Savage at 980 per foot, c.
40 shs Daney at 9 per foot.
5 shs Chollar-Potosi at 370 per foot.
17 shs Chollar-Potosi at 370@372½ pr ft.
5 shs Chollar-Potosi at 375 per foot, b 3.
7 shs Belcher at 245 per foot, s 5.
5 shs Belcher at 245 per foot, s 3.
8 shs Belcher at 245 per foot.
1 sb Belcher at 250 per foot, b 3.
1 sh Belcher at 250 per foot, b 30.
1 sh Belcher at 245 per foot, b 5
8 shs Hale & Norcross at 1175@1170.
2 shs Hale & Norcross at 1165 per foot.
2 shs Yellow Jacket at 430 per foot.
5 shs Yellow Jacket at 430 per foot, s 10.
2 shs Yellow Jacket at 427½ per foot, s 10.
2 shs Yellow Jacket at 432½ per foot.
3 shs Yellow Jacket at 430 per foot, s 3.
8 shs Crown Point at 1200 per foot.
47 shs Overman at 56@70 per share.
65 shs Overman at 70 per share, b 3.
5 shs Overman at 70 per share, b 4.
7 shs Confidence at 76 per share.
22 shs Confidence at 74 per share.
10 shs Confidence at 80 per share, b 3.
5 shs Confidence at 80 per share, b 4.
11 shs Confidence at 80 per share.
2 shs Bullion at 65 per share, b 3.
2½ shs Bullion at 65@68 per share.
19 shs Bullion at 68 per share, b 30.
6 shs Empire M & M Co. at 220 pr sh.
3 shs Empire M. & M. Co. at 125, b 3.
5 shs Imperial at 131 per share, s 3.
6 shs Imperial at 132 per share, c.
5 shs Imperial at 132 per share.
13 shs Pacific Insurance at 160 per cent.

AFTERNOON SESSION.

36 shs Ophir at 560@565 per foot.
108 shs Ophir at 570@575 per foot.
0 shs Ophir at 570 per foot, b 30.
240 shs Ophir at 580@585 per foot.
72 shs Ophir at 585 per foot, s 3.
24 shs Ophir at 590@595 per foot.
36 shs Ophir at 600 per foot, b 5.
24 shs Ophir at 600 per foot, b 3.
12 shs Ophir at 600 per foot, s 3.
96 shs Ophir at 660 per foot.
4 shs Chollar-Potosi at at 375@372½ per ft.
12 shs Crown Point at 1240@1250 per foot.
5 shs Yellow Jacket at 440@445 per foot.
14 shs Yellow Jacket at 450@455 per ft.
1 sh Yellow Jacket at 450 per foot, s 10.
2 shs Yellow Jacket at 460 per foot.
1 sh Yellow Jacket at 460 per foot, s 5.
1 sh Yellow Jacket at 462½ per foot, s 3.
3 shs Yellow Jacket at 455 per ft. s 3
1 shs Yellow Jacket at 455 per foot, b 3.
1 sh Belcher at 255 per foot, b 30.
1 sh Belcher at 247 per foot.
2 shs Belcher at 250 per foot, b10.
11 shs Belcher at 245 per foot.
1 sh Savage at 980 per foot.
1 sh Savage at 981 per foot, s 3.
2 shs Savage at 980 per foot, s 3.
2 shs Savage at 995 per foot.
4 shs Alpha, G. H. at 275 per foot.
5 shs Confidence at 85 per share
5 shs Confidence at 87½ per share, b 5.
5 shs Confidence at 87½ per share.
5 shs Confidence at 82½ per share, s 5.
10 shs Confidence at 82½ per share.
5 shs Confidence at 81½ per share.
5 shs Confidence at 82½ per share, b 30.
14 shs Confidence at 80 per share, s 3.
5 shs Confidence at 84 per share.
15 shs Confidence at 85 per share, b 10.
6 shs Confidence at 82@82½ per share.
20 shs Overman at 70 per sh.
60 shs Overman at 71@72 per share.
10 shs Imperial at 135@137 per share.
5 shs Exchequer 8 per share.
8 shs Empire M & M Co. at 225@223½.
1 sh Empire M & M Co. at 225, b 3.
25 shs Bullion at 65@67 per share.
5 shs Bullion at 67½ per share.
Amount of sales.....$189,993 00

Tuesday, March 6.

652 shs Ophir at 650@760 per foot.
24 shs Ophir at 760 per foot, s 3.
1 sh Savage at 1010 per foot, s 30.
11 shs Savage at 1025@1100 per foot.
1 sh Savage at 1 00 per foot, s 3.
1 sh Savage at 1100 per foot, s 20.
27 shs Chollar-Potosi at 375@390 per foot.
5 shs Caollar-Potosi at 380 per foot, s 30.
12 shs Daney at 9 per foot
47 shs Belcher at 260@280 per foot.
1 sh Belcher at 265 per foot, s 3.
5 shs Belcher at 280@282 per foot, b 30.
5 shs Belcher at 280 per foot, b 15.
36 shs Alpha, G H, at 280@305 per foot.
15 shs Yellow Jacket at 470@500 per foot.
2 shs Hale & Norcross at 1150 per ft, b 3.
4 shs Gould & Curry at 990 per foot.
33 shs Imperial at 150@152½ per share.
30 shs Imperial at 150@150 per sh, s 30.
5 shs Imperial at 165 per share, s 3.
20 shs Overman at 75@77½ per foot.
10 shs Overman at 80 per foot, s 3
11 shs Overman at 77½@70 per foot, b 3.
295 shs Sierra Nevada at 9@9½ per share.
20 shs Exchequer at 8@8¼ per share.
1 shs Real del Monte at 6 per share.
35 shs Bullion at 65@70 per share.
10 shs Bullion at 70 per share, b 10.
10 shs Bullion at 74 per share, b 15
5 shs Confidence at 80 per share, s 10.
37 shs Confidence at 83@82½ per share.
4 shs Empire M & M Co. at 225@222½ per sh.
20 shs Caledonia Tunnel at 3¾ per sh.
40 shs Spanish No. 2 at 1¾ per share.

AFTERNOON SESSION.

16 shs Crown Point at 1300@1350 per foot.
41 shs Chollar-Potosi at 395@400 per foot.
6 shs Chollar-Potosi at 400 per ft, b 3.
2 shs Chollar-Potosi at 412 per foot, b 30.
10 shs Chollar-Potosi at 400 per foot, b 10.
5 shs Chollar-Potosi at 400 per foot, b 5.
6 shs Hale & Norcross at 118 @1120 per ft.
28 shs Gould & Curry at 1025@1035 per foot.
4 shs Gould & Curry at 1070 per foot, b 30.
260 shs Ophir at 765@770 per foot.
120 shs Ophir at 780 per foot, b 10.
96 shs Ophir at 800 per foot, b 30.
24 shs Ophir at 760 per foot, s 30.
31 shs Belcher at 285@300 per foot.
16 shs Alpha, G. H., at 310@315 per foot.
8 shs Alpha, G. H., at 320 per foot, b 3.
32 shs Alpha, G H, at 325 per foot, s 3.
11 shs Yellow Jacket at 500@510 per foot.
75 shs Exchequer at 9@9¼ per share.
20 shs Exchequer at 9¼ per share, s 3.
224 shs Sierra Nevada at 10¼@11 per share.
50 shs Sierra Nevada at 12 per share, b 30.
49 shs Confidence at 85@90 per share.
20 shs Confidence at 82½@80 per share, s 3.
117 shs Imperial at 176@162½ per share.
10 shs Imperial at 160@170 per share, s 10.
50 shs Bullion at 80@90 per ft.
5 shs Overman at 80 per share b 3.
15 shs Overman at 89@82½ per foot.
Amount of sales.....$214,609 00

Wednesday, March 7.

630 shs Ophir at 75@680 per foot.
36 shs Ophir at 70@690 per share, s 30.
12 shs Ophir at 710 per foot, b 3.
48 shs Ophir at 710 per foot, b 10.
164 shs Ophir at 730@745 per share, b 30.
303 shs Ophir at 710 per foot, b 5.
5 shs Chollar-Potosi at 400 per foot, b 5.
11 shs Chollar-Potosi at 400@385 per foot.
5 shs Chollar Potosi at 385 per foot, s 3.
10 shs Chollar-Potosi at 390 per foot, s 30.

REPORT

ON THE

Mining District of BATOPILAS, in the State of CHIHUAHUA, MEXICO.

[Extracts from a work just issued from the Mining and Scientific Press Job Printing Office.]

(Continued from Page 133.)

LA "DLORES."

No documents existing as to tbe amount of silver it has given, or of the time when it was worked or abandoned, the traditionary fame is at our day the only guide left. It is to he remembered tbat the mine must have been neglected for over one bundred years, during whicb time the rains have wasbed away almost the entire attlepile, and the works generally filled up with rainwater to within ahout twenty varas from tbe surface, to which point the mine is accessible. As to its depth, nothing definite is known, we must therefore allow a medium of 80 to 100 varas.

I understand from authority, tbat according to tbeir knowledge on the suhject, it was began to he worked in or ahout 1729, by two Spaniards, Don Pedro Sanchez and Don Guillermo Gutierrez, wbo prospected the lode in various places, although to a very inconsiderable depth, until they struck it in a place where it gave them better inducements to follow. From bere it began to improve, until, wben it changed into tbe hands of other parties with more capital, it netted tbe second year over $250,000, and continued for some ten years afterwards in good paying ore, most of tbe time being in *heavy bonanza*, in some years netting as much as one million of dollars. About 1740 it caved in, by improper management, suffocating several miners.

One of my men told me that wben he was a boy, about 1818, two of his uncles entered tbe miue as gambusinos, and, at ahout from twenty to thirty varas depth, tbrew down a pillar, from which, according to the best of his recollection, they took something like $9,000 in splendid white silver. He used to aid them in carrying out tbe rubhish. They were stopped in further explorations by a shaft filled with water, since when be had not entered tbe mine again until I took him up there as a guide.

For a great number of years the mining population of Batopilas has heen in the habit of going tbere after each rainy season, to wash tbe *terrero* over, sometimes extracting bandsome returns therefrom. Even at the present time tbey still do this. I saw last year eight or nine stones about the size of a walnut, of almost pure silver, which a hoy bad picked up from it.

An old woman, still living here, some ten years ago, hunting up the arroyo, found a mass of virgin white silver, without a particle of matrix adbering, whicb evidently was wasbed out from the attlepile, for which the late Don Marcos Viniegra paid her $182—at the rate of $7.50 per mark of silver (8 ounces). In fact, the fame of this mine is so well established tbat there is bardly a child in tbe place tbat does not know of the "Dolores."

In my opinion, the most proper way to open this once so celebrated mine, would be by means of a tunnel commencing about sixty yards to the southeast, which would strike the lode in this distance, and thence continue on it some forty varas, to get helow tbe probable location of tbe bottom of the old works.

Taking into consideration all the circumstances of its history, its good mineral ground, location and general appearance of the vein, it is more than probahle that with a comparatively small outlay, this mine could be worked again into a second bonanza.

EL "CARMEN."

One of the mines forming the so-called "San Miguel" claim, near and to the west of the "Sau Antonio," which it resembles very much in its general character. It was worked principally about tbe beginning of this century, hy a Spanish gentleman, Don Angel Bustamante, who, it is said, spent all his means in opening it, without meeting with any success during twenty-two montbs. At the end of this time he became entirely discouraged, and had resolved to abandon it, when, he suddenly struck the first silver of what proved to be an immense bonanza, going down 160 varas in depth, out of whicb he loaned to the KING OF SPAIN over one million of dollars, in acknowledgment of which he received the title of MARQUIS. Tbe amount taken out is known to have reached over fifteen millions.

Several old persons are still living in tbe district, who, when boys, worked in the mine, and remember that in several parts of it, metal was left. It is now, however, filled up witb rainwater to a considerable degree. The "San Miguel" tunnel is destined to cut it below its old works.

THE "OBRA DE SAN MIGUEL."

This is the name given to a tunnel, eventually destined to cut all the sixteen or eigbteen veins, which lay in and form the great claim of like name.

This highly important work was first commenced some ten years ago, by a Mexican named Mendazona; who, being a poor workman, hut of considerahle spirit of enterprise, worked the mine "San Pedro," struck bonanza there, and became a wealtby miner. His health, however, giving way, and his fortune dwindling by accidental losses, he was finally obliged to give up, after driving it about 100 varas.

The claim, about tbe year 1860, got into the possession of an American Company, very ably represented hy their wortby agent, Mr. J. Robinson, under whose direction the work has heen energetically continued, and now attained a length of 200 varas.

As already stated on a former occasion, the lodes lay continuous, more or less in a soutbeast to a northwest direction, averaging about fifteen to twenty varas distance from one another, with the exception of the "San Antonio," wbich slightly differs in its course from them.

Some of these are celebrated as former *bonanza mines*, wbile others have given more or less riches, and some may as yet be virgin. Besides there are a number of lesser veins and tbreads known to run into tbem, which of course will gradually become developed, and may also reasonahly he expected to give returns, as several such, for instance in the "San Antonio," "El Carmen," etc., have formerly been found in first-class metals.

One, or, in fact, the first regular vein cut by the tunnel, is tbe so-called

"FIERROS."

Out of which Mendazona, in a very small work, took first-class ore; also Mr. Robinson, hut it has not been worked to any great extent, and holds out tbe most flattering prospects, if furtber opened. Some three or four threads have also lately heen traversed, every one of tbem showing splendid metal.

Mr. Robinson, who is absent on a visit to New York, I understand intends, after his return, to push the work energetically, and there is not the sligbtest reason for doubt that, once fairly started in there, on some of the lodes laying ahead, the "San Miguel" claim will reward its owners with another immense bonanza, and thereby, at once, raise the old fame of Batopilas anew over all other mineral districts of Mexico.

Another of the formerly celebrated *bonanza mines* of the same claim is

THE "CANCIO."

Now also abandoned and filled up. Notbing as to its works is now known. The lode shows, however, tbe same points as its neighbors, as well as all the different veins on the hill. Characteristic of tbe metal coming from them, is its extreme richness in sulpburets, besides the native silver.

THE "MARTINEZ"

Lays on the west side of the river, on a spur of the Cerro de Animas, in excellent mineral ground.

Tbis mine was worked about the year 1816 and 1817, by the Marquis of Bustamante, who extracted therefrom a considerable bonanza, principally from those parts extending to the south, where, it is said, they still bold out strong inducements for following it up.

THE "SAN PEDRO,"

West, and between the latter and the "Pastrana," is a mine of considerahle reputation. It was first discovered and worked a little by gambusinos, until later it got into possession of the already mentioned Mendazona, who struck it in rich metal, and followed it down to about 70 varas, perpendicularly, out of wbich he took some $200,000, part of it in beautiful massive silver. It is said that this mine and the "Martinez," gave the most beautiful specimens of bright white silver imaginahle, some of which were sought and paid for at more tban their triple value.

The lode runs from southeast to northwest, and shows a splendid vein of three-fourths of a vara in width on an average, of very white calspar, with some crystals of galena. Mr. Robinson worked in one part of it for some time and took some very good ore from it. He left this mine, however, because his whole attention was directed to tbe important work on the "San Miguel" tunnel. It belongs to the same American Company, who hought both claims from Mendazona. The works are perfectly dry and accessible to the bottom, and in good working order.

Any works recommenced on it that would go deeper, and develop the lode in different directions, would undouhtedly bring it again into a remunerating state within a comparatively short time, as all the *geological features* connected with it are very promising indeed.

I understand tbat both of these mines have lately heen sold to a company in New York, wbo will immediately send an agent out to commence operations.

THE "SANTO DOMINGO,"

Adjacent to the "Roncesvalles," which it is supposed it will join in the lower workings. The lode lays in the same excellent mineral ground, with a general direction from south to north, dipping 18° West.

It was first discovered by one Don Nepomuceno Avila, who, about twelve years ago, while out bunting for leads, accidentally came upon this, at a place where the ants had strewed the ground with bright shining silver particles taken from the lode. It was taken possession of, and worked for about two years, by a Mexican lady of remarkable energy, Doña Trinidad Ortiz.

The works on the lode are almost perpendicular, following the dip of the metal, whicb appears to have been a cbimney of remarkably small longitudinal direction, as hardly any works in tbat direction exist. It is about 60 varas deep, and gave something over $40,000, partly in white massive silver, and partly in extremely ricb chlorides and red and black sulpherets. It was especially noted for the heauty and large pieces of crystals and ruby silver.

After the old lady left off working it, one Dr. Wright purchased the claim and continued to sink a sbort distance, and took out about $8,000 in most splendid metal, some of which gave $1,400 to the 100 pounds, while the average lay ran up to $800 for tbe same quantity. A misfortune that hefell him soon after, in breaking one of his legs while descending into anotber mine, caused him to desist. Tbis gentleman getting, tbereby, into reduced circumstances, left Batopilas, having transferred a part of his claim, including, also, the "Roncesvalles" and "Santo Tomas," to a Mexican who only works them at intervals. Perseverance would, in all probability, bring the mine again into a paying state.

"SANTO TOMAS."

The ore appeared on the very surface, some of it giving $14 to the pound. But tbis proved to he only a small pocket yielding about $600, and tbe discoverer sold out. The purchasers found, after sinking ten varas, two other pockets, yielding about $1,500, and then transferred their mine to two Americans, who, after sinking three varas, struck another pocket of very rich silver, mostly averaging $15 to tbe pouud, and in pieces of from six to ten pounds.

Tbis pocket gave tbem about $7,000. After these, Dr. Wrigbt stepped in and took out another pocket of some $4,000. It is now beld by the same parties as the foregoing, and from the fact of having given such pockets witbin a very short distance, would seem to hold out inducements for another more extended trial wbereby larger deposits may be discovered.

THE "SAN NESTOR"

Is to the east of Batopilas, on the other side of the river, near the top of the hill in which lay the "Nevada" and "Candelaria." It was first discovered some ten years ago by Avila, and worked by Doña Trinidad Ortiz, to whom it gave a bonanza, beginning from the very surface. Its depth was never more than thirty varas, with very little longitudinal extension.

Since then it passed into the hands of a Mexican Company, who, after working it for a length of time with very little success, struck, about six months ago, into what appears to be a new bonanza, the extent of which it is impossible to foresee. The metal throughout all the works is good, in parts it is of the first class, and much of it in solid silver.

They are also running a tunnel somewhat lower down, which will determine the downward tendency of the deposit.

LOS "TAJOS,"

A mine from sixty to seventy varas to the south of the latter, and also on the very top of the hill.

This mine was worked, as its name indicates, by mere surface openings or ditches along the lode, which seems not to have gone down more than from fifteen to twenty varas. The ore was found from the surface in rich "bodoques," (chlorides,) and massive silver, but temporarily gave out, and nobody took the pains to sink any deeper, although there is no reason to doubt that, with proper working, this mine would give anew as rich returns as its neighbor, to which, in its general characteristics, it bears very strong resemblance. This claim is owned by Mr. Frank Heard, at present at Batopilas.

LA "VALENCIA,"

Some 80 or 100 yards to the southwest of the "Tajos," is also a mine of recent date, which gave, in three shafts of from seven to ten varas depth each, three different rich pockets, varying from $6,000 to $12,000.

As no further prospecting has been done, except a small gallery, the lode may be called, as yet, virgin, and certainly holds out very fair inducements to follow up the direction of the silver, which, it is said, began at the surface. It enjoys great confidence among the mining population, and belongs to parties represented by Mr. Frank Heard.

THE "AURORA,"

Is on a spur of the "Animas" hill, to the north of the town, and of recent date.

The general direction of this lode is from south to north, running, so to say, right into the hill, very advantageous for the construction of a tunnel. The ores, like those of all other mines in the district, are composed of calspar, intermixed with white and black silver. A number of other lodes and threads run almost at right angles with the main lode, some of which are of considerable dimensions, as, for instance, the "Veta Grande," and give, combined with the excellent mineral ground through which they shape their course, excellent hopes of very rich returns. None of them have ever been worked to any considerable extent, merely been picked at. Even the "Aurora" proper has but very little depth and extension, although it gave considerable silver. It is not worked at present, and belongs to the owner of the "San Nestor."

THE "SANTA TERESA,"

On the spur to the east and opposite the former, is likewise in the same hands.

The rock composing the hill consists principally of diorite, joined at the present mouth of the mine by a stretch of stratified rock, and the mineral ground (*panino*) particular to the claim belongs to what is here called the "black" one, (*panino negro,*) the ores of which are generally found much poorer than those of the "white," so much so that only the *visible silver* is counted upon, while in the other the *not visible* will pay even richer. A great number of holes of no great depth perforate the claim in all directions, showing that it was frequently resorted to and prospected, but whether it gave anything worthy of consideration is not known, as no documents relative to it exist. The same lodes which cross the "Aurora," continue through this claim, in combination with a number of others, more or less traversed by the "Santa Teresa" lode proper, which dives into the hill.

Several years ago, this claim got into the hands of a Mexican Company, represented by one Don Jesus Valenzuela, who worked it for two or three years, only enough to hold it within the law. About one year ago they struck a cross vein and got into very rich metal, which, since then, they have been following up, and have already taken out considerable silver. For the last eight months they have worked in this without taking the ore out, but they will do so in a few weeks, and I understand that it will undoubtedly give them a very fair fortune, as a part of it seems to be very rich indeed.

For the past two months, they have cut several veins in a work which they are driving, tunnel-like, on the "Santa Teresa" lode, every one of them in splendid silver, although they have not, as yet, opened any side works on them. At the same time the *panino*, thus far into the hill, seems to change very favorably. Last week they struck solid silver in one of them, of three fingers thickness, the first piece of which taken out, I saw, weighed over fifty pounds; and I have also seen many very rich samples from other parts of the mine.

Several shafts sunk in various parts go to show that the metal extends downwards, so that there is no doubt whatever, that this claim has at last entered upon a bonanza which eventually may turn out an immense one, considering that the whole of it is as yet virgin ground.

LA "VACA"

Is a mine located on a spur of the "Animas" hill, west of the "Aurora."

Several lodes cross, or join each other, near the point where a small work has been driven on the above named lode. This, however, does not consist of more than a shaft of about eight varas depth, and a gallery of some twenty varas length, from both of which good metal has been taken. On the other leads similar works are to be seen. I have not been able, however, to get any information as to what the results have been.

The "Vaca" gives very fair promise, and needs only proper development to bring its treasures gradually to light. Its owners, Messrs. J. Robinson and Thos. Laven, I understand, have lately sold their interest to a New York Company, who, I hope, will go to work in a business-like manner to find their rich reward.

One of the above named lodes, which is included in the "Vaca" claim, is the

"VALLINAS,"

Which is known to have given a considerable bonanza in former years, although its precise history is now lost to us. The works on it seem to have fallen in, and nothing of them but a large opening (*tajo*) is now to be seen, where the principal entrance was. I have heard that the works have never been deeper than 70 varas; so that a tunnel run in at a somewhat greater depth would be advisable. In fact, there exists such a one to the west of it, commenced by a Frenchman, several years ago, but not continued for want of means.

The mineral ground through which the lode runs is of the first order, and should certainly give strong inducements for more extensive works. Its neighbor to the west is the "Martinez," about 200 yards distant, with the "Aurora" about the same distance to the right.

THE "ANIMAS,"

On the north side of the "Cerro de Animas," was first discovered twelve years ago by an Indian, who divulged it to Doña Trinidad Ortiz. This lady worked it for some time, and took therefrom about $30,000, mostly in massive silver, beginning from the very surface. At about fifteen varas depth this deposit gave out, and, true to the Mexican spirit never to exert itself in *borra*, the metal was not followed up, but abandoned.

A couple of years ago the owner of the "San Nestor" mine commenced it again, and although only of late working it off and on, with a few men, is getting into very fair indications, which may lead him into a rich deposit of silver, as the lode is yet perfectly virgin, and all other circumstances connected with it highly favorable.

THE "BALTAZAR,"

Likewise on the north side of the "Animas" hill, on a spur to the east of the "Animas" mine. This is a very promising claim, in excellent mineral ground, consisting of a regular vein, and quite a number of lesser hy-veins which cross or join one another in different directions, mostly running west to east, while others from south to north.

The former, apparently has never been worked; one of the latter, however, in years gone by, must have given a large bonanza, as its fame ranks high among such. Very likely this consisted mostly in massive silver, commencing from the surface. Now there is only a large opening to be seen along the vein, some twenty-five feet deep, with an inclining shaft running therefrom southward, in which the *cinta* shows itself somewhat narrow. This work was principally given in *stratified rock;* that would seem, in case it should extend further in and downward, to indicate, or at least to justify the hope of another rich strike below where it joins the diorite, which forms the principal rock of the spur.

The other veins, wherever they have been worked a little, (and very little work has been done on them, by gambusinos principally,) have always given pockets of rich, mostly massive silver. The last one that worked on one of them, Mr. Wm. Hooper, an English gentleman, who resides here, and now works the "Santo Niño" mine, took some $6,000 from about five varas; but he says that he lost more than one-half more by carelessness in watching. His attention being drawn off by other mines, he left it; since then until quite recently the "Baltazar," has lain unclaimed.

The entire length of the works on this claim does not go over thirty varas; therefore it may still be considered virgin ground, and, considering all the circumstances, in my opinion, certainly a claim very worthy of attention, as it very likely may contain great riches. At least it appears that only comparatively very short distances separate the various deposits of silver, and lead to the supposition that further in towards the centre of the hill, these will augment until, at greater depth, they may form a grand body. The rock in the claim is remarkably soft, and therefore easily worked; wherefore the gambusinos like to go to the "Baltazar," which, in itself, is another recommendation.

On the same side of the "Animas" hill, are two or three other lodes, which respectively have given bonanzas, or at least considerable bodies of silver. For instance, the

"TRINIDAD,"

Which, about the year 1820, in a small work of about sixteen varas depth, gave $40,000, mostly in large lumps of massive silver, and was then left. It was a few months since claimed by Mr. George Le-Brun.

THE "GUADALUPE,"

Which gave, equally from the surface, in a very short distance, a great amount of metal.

THE "SAN PEDRO VIEJO,"

to the west of the latter, but in a different mineral ground, and others, all of which, after having laid abandoned for many years, have of late found owners who, I hope, may go to work in proper earnest, and reap the reward for which their appearance, location and history justify the hope.

THE "CARMEN" CLAIM,

Comprising a number of claims—some sixteen or eighteen—the majority of which run parallel with each other, in very short distances, and equally good *panino*, from southwest to northeast. Its location is near the top of a high hill to the southwest of the town, called the "Cerro de la Descubridora."

Several of these lodes have given very rich bonanzas, some forty to fifty years ago, as, for instance, the one known as

LA "GUADALUPE,"

Out of which over $100,000 were taken. The works do not go over forty varas in depth, but are at present partly filled up with rubbish.

[To be Continued.]

5 shs Chollar-Potosi at 405 per foot, b 30.
32 shs Hale & Norcross at 1040@1085 per ft.
100 shs Daney at 9½@10 per foot.
8 shs Crown Point at 1350 per foot.
8 shs Crown Point at 1375 per foot, b 30.
13 shs Yellow Jacket at 500@510 per ft
1 sh Yellow Jacket at 560 per foot, s 3.
64 shs Alpha, G. H. at 350@355 per foot.
16 shs Alpha, G. H., at 340@350 per ft, s 3.
2 shs Savage at 1050 per foot.
1 sh Savage at 1100 per foot, b 30.
5 shs Belcher at 300 per foot, s 3.
7 shs Belcher at 300 per foot.
16 shs Imperial at 155@147 per share.
20 shs Imperial at 150@140 per share, s 30.
15 shs Imperial at 155@150 per share, b 30.
10 shs Imperial at 150 per share, b 3.
15 shs Overman at 85@97½ per foot.
5 shs Overman at 80 per foot, s 30.
5 shs Overman at 95 per foot, s 3.
5 shs Overman at 100 per foot, b 3.
20 shs Overman at 97½ per foot, s 3.
215 shs Sierra Nevada at 8½@9 per sh.
226 shs Exchequer at 9½@10 per share.
75 shs Bullion at 85@87½ per share.
20 shs Bullion at 90 per share, b 3.
10 shs Confidence at 80 per share, b 3.
17 shs Confidence at 75 per share.
7 shs Spring Valley Water at 60½ per cent.

AFTERNOON SESSION.

12 shs Ophir at 760 per foot, s 30.
72 shs Ophir at 740@750 per foot.
84 shs Ophir at 740@745 per foot.
120 shs Ophir at 750@760 per foot.
252 shs Ophir at 765 per foot.
48 shs Ophir at 740 per foot, s 30.
12 shs Ophir at 770 per foot, b 30.
7 shs Savage at 1025@1010 per foot.
11 shs Belcher at 290 per foot
1 sh Belcher at 290 per foot, s 5.
8 shs Gould & Curry at 1050@1040 per foot.
4 shs Gould & Curry at 1070 per foot, b 30.
24 shs Alpha, G. H., at 345@340 per foot.
4 shs Crown Point at 1300 per foot b 30.
8 shs Crown Point at 1335@1300 per ft, b 30.
4 shs Yellow Jacket at 500@480 per foot.
10 shs Yellow Jacket at 475@470 per ft.
40 shs Bullion at 95@90 per share.
10 shs Bullion at 95 per share, b 10.
5 shs Bullion at 89 per share.
18 shs Bullion at 87½@84 per share.
5 shs Bullion at 86 per share, b 3.
49 shs Confidence at 70@72½ per share.
20 shs Confidence at 75, b 10.
50 shs Sierra Nevada at 9 per share, b 3.
130 shs Sierra Nevada at 9½@9¾ per share.
150 shs Exchequer at 10 per share.
30 shs Exchequer at 10 per share, s 3.
50 shs Exchequer, at 10 per share, s 5,
9 shs Imperial at 153 per share.
5 shs Imperial at 152 per share, s 30.
10 shs Imperial at 152½ per share, b 30.
5 shs Imperial at 152 per share, s 15.
8 shs Overman at 90 per share.
5 shs Overman at 85 per foot, s 30.
8 shs Overman at 85@87½ per sh.
$15,000 Legal Tender Notes at 75c, s 30.

Amount of sales.....$218,352 00

Thursday, March 8.

536 shs Ophir at 820@760 per foot.
12 shs Ophir at 830 per foot, s 30.
96 shs Ophir at 820@800 per foot, s 30.
12 shs Ophir at 820 per foot, b 3.
36 shs Ophir at 790@780 per foot, b 3.
53 shs Chollar-Potosi at 400 per foot, b 30.
39 shs Chollar-Potosi at 372½@390 per foot.
5 shs Chollar Potosi at 380 per foot, b 3.
2 shs Chollar-Potosi at 390 per foot, b 5.
27 shs Yellow Jacket at 475@485 per foot
2 shs Yellow Jacket at 475 per foot, b 3.
1 sh Yellow Jacket at 475 per foot, s 5.
3 shs Yellow Jacket at 475@485 per ft, s 10.
15 shs Yellow Jacket at 475@470 per ft, s 30.
6 shs Yellow Jacket at 500@495 per ft, b 30.
11 shs Savage at 1040@1045 per foot.
1 sh Savage at 1040 per foot, s 3.
1 sh Savage at 1040 per foot, s 30.
6 shs Savage at 1045@1040 per foot, b 3.
8 shs Halo & Norcross at 1050@1080 per ft.
1 sh Hale & Norcross at 1080 per foot, s 3.
1 sh Hale & Norcross at 1080 per foot, s 5.
56 shs Alpha, G. H., at 300@335 per foot.
8 shs Alpha, G. H., at 320 per foot, s 3.
8 shs Crown Point at 1280@1275 per foot.
6 shs Belcher at 280@265 per foot, b 30.
1 sh Belcher at 290 per foot, b 30.
59 shs Bullion at @9091 per share.
10 shs Bullion, at 85 per share, s 30.
10 shs Bullion at 92 per share, s 3.
5 shs Empire M & M Co. at 250 per sh. b 3
1 sh Empire M & M Co. at 245 per share.
9 shs Overman at 90 per foot, s 5.
53 shs Overman at 95@94 per foot.
10 shs Overman at 93 per foot, s 30.
15 shs Overman at 95 per share, s 3.
20 shs Sierra Nevada at 9¾ per share.
25 shs Confidence at 75 per share, b 3.
32 sh Confidence at 75@70 per share.
5 shs Confidence at 75 per share, b 30.
40 shs Imperial at 150@149 per sh, s 3.
12 shs Imperial at 152½ per share.
30 shs Imperial at 155 per share, b 20.
40 shs Exchequer at 9¾@9 per share.

AFTERNOON SESSION.

11 shs Savage at 1030@990 per foot.
4 shs Savage at 1040@975 per foot, s 30.
84 shs Ophir at 760 per share.
144 shs Ophir at 750 per foot.
12 shs Ophir at 715 per foot, b 15.
36 shs Ophir at 740 per share.
12 shs Ophir at 730 per foot, s 30.
12 shs Ophir at 750 per foot, s 3.
12 shs Crown Point at 1250@1230 per foot.
80 shs Daney at 11 per foot.
3 shs Belcher at 285 per foot.
106 shs Exchequer at 9@9¾ per share.
20 shs Bullion at 85@80 per share.
20 shs Bullion at 90@85 per share, b 03.
25 shs Bullion at 77½@75 per share.
15 shs Bullion at 70@67½ per share.
22 shs Confidence at 75@72½ per share.
20 shs Sierra Nevada at 10 per share, b 30.
130 shs Sierra Nevada at 9¾ per share.
7 shs Overman at 90 per share.

Amount of sales.....$152,420 00

Friday, March 9.

42 shs Ophir at 760 per foot.
168 shs Ophir at 735@705 per foot.
120 shs Ophir at 730@725 per foot.
59 shs Chollar-Potosi at 370@362 per foot.
10 shs Chollar-Potosi at 360 per foot, s 30.
6 shs Chollar-Potosi at 370 per foot, b 30.
19 shs Chollar-Potosi at 362½@365 per ft.
18 shs Yellow Jacket at 500@495 per ft.
14 shs Yellow Jacket at 500 per foot.
8 shs Yellow Jacket at 505 per foot, b 30.
5 shs Savage at 980@955 per foot.
23 shs Crown Point at 1275@1300 per foot.
12 shs Alpha, G. H. at 340 per foot.
76 shs Overman at 95@97½ per sh
10 shs Imperial at 161 per share.
25 shs Bullion at 75@80 per share.
80 shs Confidence at 78@75 per sh.
100 shs Sierra Nevada at 10 per share.
10 shs Daney at 11@12¼ per share.
30 shs Exchequer at 9½@9¾ per share.
9 shs Belcher at 280@265 per foot.
4 shs Gould & Curry at 1000 per foot.
$2,000 U. S. 7-30 Bonds at 76 per cent.
$10,600 Legal Tender Notes at 75½ pr ct., s 30.

AFTERNOON SESSION.

288 shs Ophir at 730@735 per foot.
84 shs Ophir at 732½@735 per foot.
24 shs Ophir at 720 per foot, s 30.
9 shs Yellow Jacket at 510@525 per foot.
5 shs Yellow Jacket at 520@530 per foot.
48 shs Ophir at 740 per foot.
7 shs Chollar-Potosi at 370 per foot.
25 shs Chollar-Potosi at 375 per foot, s 30.
12 shs Chollar-Potosi at 380 per foot, b 20.
5 shs Chollar-Potosi at 380 per foot.
5 shs Savage at 990 per foot
2 shs Savage at 1000 per foot, s 30.
2 shs Savage at 1040 per foot, b 30.
15 shs Confidence at 76 per share:
4 shs Hale & Norcross at 1050 per foot.
1 sh Hale & Norcross at 1075 per foot.
4 shs Crown Point at 1310@1325 per foot.
1 sh Crown Point at 1300 per foot, s 30.
2 shs Bullion at 80 per share.
30 shs Belcher at 280@275 per foot.
135 shs Sierra Nevada at 10@10½ per share.
120 shs Overman at 97@95 per foot.
60 shs Daney at 12 per foot.
55 shs N B & Mission R R Co. at 49 per sh.

Amount of sales.....$176,990 00

Mining Summary.

CALIFORNIA.

SHASTA COUNTY.—The *Courier* says that a lode of copper bearing rock, which, for richness surpasses anything heretofore seen in that county, was recently discovered by Mr. Pierson, in the southeastern part of the county, about twenty miles from Shasta. The discovery was kept a secret for some time; but the locality is now known. A nugget worth $272 was taken from the Dog Creek mines a short time since.

BUTTE.—A correspondent of the Marysville *Appeal* speaks very encouragingly of mining operations in the hydraulic claims in the vicinity of Timbuctoo. Considerable difficulty has recently been experienced on account of a misunderstanding between the Excelsior Canal Company and the Shamrock Mining Company. This quarrel compelled the suspension of operations on the part of several other companies, until Mr. James O'Brien, of the Perry & Evans claim, terminated the difficulty by purchasing the Shamrock ground for $8,000. In so doing, he has done a great favor for the general mining interests of the neighborhood. The Easton company, which recently made an extensive purchase on Squaw creek, is making rapid strides towards opening their claims, under the management of E. F. Williams of Smartsville. The company employs about thirty men, and it is expected that the claim will soon be yielding large returns. The Blue gravel claim on Sucker Flat still continues to pay as well as ever. Mr. Chamberlain, Superintendent of the Squaw Creek mining company, has sunk a shaft sixty feet deep, and struck the blue gravel. He proposes to erect machinery for pumping and hoisting in order to thoroughly test the mine.

The Andrew Jackson quartz mining company are about to resume active operations under the supervision of L. B. Clark. They have had a lot of rock hauled to Grass Valley for crushing which gave satisfactory returns. The company are about to erect machinery, and test the mine thoroughly. The Marc Antony quartz mining company had to suspend operations on account of too much water coming in from the late rains. They have out a huge pile of quartz, but have no machinery as yet to test it. They intend starting again soon.

NEVADA.—The *Transcript* learns that Still's mill is kept in constant operation crushing quartz from the celebrated Wilmington lead on Gold Flat. At the last crushing, some two years since, from which time it has been unworked until lately, it yielded $35 to the ton. No returns have yet been made public as to its present yield.

Work has recently been resumed on the Mattingly ledge. Some years ago several crushings were taken out of this ledge, and worked at Grass Valley and Nevada, but did not pay. The owners are still confident of the richness of their claims, and are determined to prospect it to a greater depth. This ledge is upon the same range as the Star Spangled Banner. There is no reason why it should not be rich.

The Kistil company on the Prosper ledge, on Canada Hill, is constantly at work, with most gratifying success. Last fall stock in this company sold for $30 per share; a few days since a share was sold for $150, which was bought in by the company for $500. A lot of eighty tons of rock is now being crushed at the French mill, and it is expected the returns coming to the above share for this lot alone, will refund the amount paid for it. So says the *Transcript*.

The *Gazette* says the Pennsylvania mill was started up on Monday last, for the first time since it came to a sudden stop last fall by the bursting of the boiler. They have out about fifty tons of ore, which it is thought will pay $70 to the ton. The indications are favorable for this becoming one of the best mines in the vicinity.

Some very rich rock is being taken out of the Deadwood ledge, near the Oriental mill. This claim paid remarkably well some years ago, and the original discoverers each made a small fortune by working the ledge and selling out. It has been worked but very little for several years past, never having been opened to any depth.

The Excelsior Mines.—We hear that the Excelsior mills have been stopped for want of ore. A correspondent of the Virginia *Enterprise* says that Winton's mill has been crushing rock from the Pacific ledge and made good results. The California mill will start again in a few weeks and will make the next crushing from the famous California ledge. The Enterprise mill is not yet finished, but may be completed by the first of April. The months of February and March will eventually be the hauling season. During these two months the snow is compact so that a road may be broken anywhere with but little trouble, and with no danger of its being filled up with snow. The advantage of hauling with sleds and oxen, compared with mules and wagons, are obvious, and our millmen and others will be prepared for this another season.

CALAVERAS.—The Copperopolis *Courier* says that a number of companies which temporarily suspended operations last fall, in this and adjoining districts, are now making arrangements to resume work. Besides these are numerous other companies which intend to commence work on their claims next summer. The permanency of the Union and Keystone is giving capitalists confidence in our mines.

AMADOR.—The Amador Cinnabar mining company have commenced work in earnest upon their ground, and it will not be long before they will be able to ascertain the true value of their claim. Persons who are familiar with this kind of mining speak well of the "prospect."

The *Ledger* learns that another quartz mill will soon be commenced near this place; it will be erected for the purpose of crushing the rock taken from the Kennedy, one of the richest lodes in this region, which has been worked for a number of years very successfully—the rock taken out being crushed at the Oneida mill.

MARIPOSA.—The Mariposa *Gazette* of February 24th says last week a very rich strike was made in the Cerro Rico quartz vein, owned by Jose del Cermen Rodriques, and some five or six thousand dollars taken out. The gold was very coarse, some pieces weighing from two to three ounces. The vein is situated on Bear creek, a short distance from the town of Colorado.

FRESNO.—Highly encouraging accounts, says the Tulare *Times*, are received of the development and discovery of copper mines in Fresno county. In the Ne Plus Ultra mine, which has recently opened rich, a sale was made a few days since at a high figure; the purchaser being satisfied that the lead is a rich and permanent one. A new vein was recently struck about eight miles from Millerton that promises to prove valuable. Public interest is strongly enlisted in the subject, and important discoveries may be anticipated. There is no doubt but the region around Millerton is rich in copper ores.

The Thorn quartz mine, on Little Dry creek, which has been worked imperfectly with arastras for a year or two, is proving extremely rich, and negotiations are now pending for the sale of the whole or a portion of it to a San Francisco company.

TULARE.—We learn from the *Examiner*, that the Wolfskill mill is now running steadily. It works most magnificently. A better lot of machinery has never left San Francisco. They have made one run of thirty-five tons of ore from the Baptist lode, from which they cleaned two thousand five hundred dollars. They design putting up ten more stamps immediately.

HUMBOLDT.

The *Register* says that the Monroe Series, a gold quartz claim in Dun Glen, has been showing up admirably of late. A lot of five tons of rock, recently worked at Holt's mill, yielded $2,500. At a depth of about 72 feet, the men came upon richer rock than ever before. One of the men thinks the rock taken out will yield $2,000; but probably, being an owner, he was a little too extravagant in his estimate.

The Daniel Webster company has let a contract for the extension of the tunnel 100 feet further into the mountain. The workmen expect to tap the ledge near the end of this run.

ESMERALDA.

MESSRS. EDITORS: Since my last, very little of interest has transpired in this camp; stormy weather has kept mining operations back. But *one mine*, that I know of, has steadily kept working. The "Crockett" on Last Chance Hill, under the management of Mr. Gallagher, has been kept to work through all kinds of weather, and from the appearance of the rock that I have seen it will richly reward him for his perseverance. I understand that he purposes putting on a larger force when the days get longer and the mine will justify him in doing so.

OTHER MINES

Will soon resume work, and the clank of the hammer and drill will resound all over (and under) the hills adjacent to Aurora.

There are many mines here worthy of being worked, that would pay well if the owners would only look after them, themselves; instead of letting contracts to parties to take out the rock (for a nominal price per ton, which they seldom or never get), said parties not caring in what shape they leave the mine, so long as they can gouge them out and make them pay themselves; leaving their waste rock in the mine, requiring as much, if not more labor, to clear the mine of waste or bad rock, as it would to work the mine originally. I know of many such instances, and to those abroad who have the letting of such mines, I would say, rather let them lay idle than give out such contracts, as they are most injurious to the mining interests of any mining camp, and this one in particular.

THE PAUL THOMPSON.

This mine, once upon a time, was considered of great value. It lays adjacent to, and about three hundred feet due south of the original Del Monte claim on Last Chance Hill. It is now owned by private individuals, having been sold by the sheriff on the 5th June last, under an execution for debt, and the company not having redeemed, the sale has become absolute; the six months for redemption having long since expired, Mr. C. Novacovich, N. Trivanovich and some others being the fortunate owners; although their mine has been allowed to lay idle, it is not the less valuable, having a well defined ledge of good paying quartz. To a few men with capital this mine would prove a rich harvest. It might not pay under a company administration, but would pay individual industry well.

THE DEL MONTE.

The sale of this mine for taxes, together with the Del Monte mill and all its appurtenances, has been a serious drawback to this camp, and will prove so until the resumption of operations by the party purchasing. I examined the Del Monte mill a short time since, and can unhesitatingly say that it is one of the best, if not the best quartz mill that I have ever seen, and I have seen many in California and Virginia; everything is in the most systematic order, but it has been so often described, by abler judges than myself, that I will not go into further details, but simply leave it, regretting that so fine a piece of mechanism should be allowed to lay idle.

THE DAILY MAIL

has proved quite a blessing to us outside barbarians, and the citizens of Aurora and outside camps are under (or ought to be) many obligations to Mr. Willington for obtaining it for them, and to his gentlemanly son, George, who superintends its affairs. It is quite a comfort to be able to sit down to your breakfast and take up the paper every morning from San Francisco, Sacramento, Virginia, or wherever your fancy may lead you, and see and read what is going on in the outside world. Our enterprising news dealer, Mr. Michner, caters well for the public palate in the way of newspapers, periodicals and reading matter of all kinds, and, as a reward for his industry in this branch, is well patronized by the citizens, as they are all of a reading and thinking turn.

AURORA,

or rather its citizens, are making herculean strides in the literary direction. Already it boasts of its Lyceum and Library Association, which does great credit to the *literati* of the place; and with the talented Gough as librarian, it is sure to be a success. A course of lectures is now being delivered for the benefit of the Association, the first of which came off a few nights ago, by W. T. Gough, Esq. Subject: "Geology, and its relation to the Bible." He handled his subject in the most masterly manner, and so enchained his audience that a pin could be heard drop on the floor, until at the conclusion, one spontaneous acclamation went forth in honor of the orator. After the lecture came a tripping of the "light fantastic toe," to relieve the mind, by exercising the body, of the grand but eloquent subject they had listened to.

CAPITAL.

There is magic in that one word. Upon it is poised the destinies of *men* and *mines*, and when I view the amount of capital that is being invested and carried into districts hundreds of miles beyond us, unopened and unknown, I wonder of what ideas men can be possessed, or what influence brought to bear upon them, to induce them in buying large quantities of machinery, and shipping it, at enormous expense, to mines that have not had a pick stuck into them, or the least preparation made for extracting ore to supply a mill, when by the simple act of investigation they could find mines much nearer and easier of access, well opened, and ready to supply ore that would pay from the word "go." To my mind this is the most serious injury to our mining interest on the Pacific Slope—the loose manner in which great outlays of money is made. Were the parties commanding such capital to come here, examine our mines for themselves, or even send competent persons to do so, my life for it, their machinery would stop here, and they would soon be rewarded, in the shape of returns, instead of the heavy outlays that I know for a certainty they have to bear; and in the end what is their reward? a failure, and the total loss of the money invested! This sort of thing has been the curse and ruin of many of our best mining districts; confidence is lost, and, to use a common *simile*, "the burned child so dreads the fire" that he will not seek further, but let capital (what is left of it) seek investment in some other channel. I am credibly informed that arrangements have been made with an Eastern company for working capital, and that the machinery is now on the way to develop some of our mines to a greater depth than has yet been done. I am very glad to hear of this, as I have strong faith in the mines here, and capital is all that is needed to make them valuable and paying institutions, and this company I predict will be the predecessor of many more to follow when the result of their labor is known.

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[Written for the Mining and Scientific Press.]

From Brown's Valley.

MR. EDITOR:—If we had not already the world's more recent history of newspaper celebrities before us, two papers in our own State, whose names are in everybody's mind and mouth, would fully illustrate the fact that whilst political or purely party papers can seldom be made paying institutions, nor even afford any kind of satisfaction to those engaged in them, other papers, entirely identifying themselves with all the vital questions of the State, or those more particularly pertaining to their special spheres of activity, soon attain a most enviable, high and influential position, which increases their usefulness, and finally makes them powerful and most beneficial institutions. Such a position I predict for your own paper, if you continue your present efforts.

We are to-day only commencing the development of our mineral resources; and the mining interest is and ever will be paramount to all other vital interests of our State. The more I read your paper, the more I feel convinced, that for the more intelligent and economical working and development of our mines, a well-conducted medium for the dissemination of useful information is absolutely necessary. Not only every miner, but all persons interested in mining, will read it with interest and profit to themselves; and will also soon feel inclined and ready to aid not only in the collection of valuable information, but also in extending the circulation of the paper.

In most cases, success in mining is only obtained after many years of great expense, of toil and patient perseverence; and some of the more immediate causes why claims have been so often abandoned for want of satisfactory results, may be found, first, in the fact that we have in California as yet but very, very few men really able to superintend and conduct the works of such enterprise; and also, perhaps, with too sanguine, and often ridiculous expectations of those most heavily engaged in them.

It cannot be denied, however, that the management of such enterprises, this side of the mountains, has so far been more judicious, economical and honest, than in yonder silver land; and as long as our claims will not be worked under the influence and according to the more immediate and pressing requirements of a San Francisco Stock Board, there may be hope that we will get along without any crash or crisis.

Having given much time, attention and thought, during the last few years, to quartz mining, I could not fail to come to the conclusion that, for lack of faith, knowledge and perseverance, a great many good claims have been abandoned, and that the large sums of money thus spent, without any profit or advantage, could certainly not fail to increase the already existing discouragement, and thus completely disgust many of those engaged in quartz mining.

Hence, I cannot help beginning my remarks with a denial of the theory so generally admitted amongst miners, that quartz veins may pay well on the surface, and perhaps to a certain depth, and then at once fail or give out entirely. I mean to say that such claims should not be abandoned so readily. Ledges or pay streaks may disappear in the shafts, and we may, for sometime, lose sight of them entirely, as is often the case when we find a so-called "horse" in our way; but with a reasonable care, and knowledge or experience in mining, we shall always find them again. There can be no doubt of this, as a general thing, as long as we have the same casing, cap-rock, etc., as before, to guide us in our prospects. Ledges are somewhat like rivers—they pursue their course sometimes straight and sometimes crooked; sometimes small and sometimes large. It is for the miner to study his ground, and then to act accordingly.

In this connection, it may not be amiss to speak of a fact now positively established in some of our quartz claims in Brown's Valley—a fact of which I have never seen any mention made in your paper nor in any other one.

In several of these claims the pay streaks are crossing their incline shafts, at an oblique

angle of from forty to fifty degrees, and thus, very naturally, can be only visible in them to a certain depth, whilst still they continue their course uninterrupted in a different direction. In our Dann brogue claim, for instance, the strike is east and west, and the dip north, at an angle of forty-five degrees. The strike east and west being 200 feet in length, the so-called pay streak, consequently, can only exist in the shaft for a length or at a depth of about 200 feet.

Thus, the Dannebrogus, in sinking their shaft 60 feet below the point (200 feet) where they lost sight of their ledge in the shaft, had then to drift about sixty feet, in a southeasterly direction, in order to reach again their pay streak, whose course is from northwest to southeast, at an oblique angle of forty-five degrees. Their next drift, at a depth of 360 feet, or 100 feet below the upper one, had, consequently, to be 160 feet in length, in order to reach this same pay streak again.

New streaks crossing the shaft have subsequently been met with in this claim; but the quartz not paying equally as rich, they have as yet not been worked.

What I have said in regard to oblique streaks in the Dannebrogue claim equally applies to that of the Jefferson company. There, however, the strike is north and south and the dip east, whilst the pay streak is running from a southwesterly to a northeasterly direction. The streaks on this Pennsylvania lode seem to exist at short intervals of from 75 to about 150 feet from each other, and the quartz to be of the same blue color, and of nearly the same richness all over these claims. If it were not for the able management of John Howell, the Superintendent, the Dannebrogue claim would certainly have been abandoned years ago.

The Jefferson claim, which is now again paying its regular $20 dividends every month, was on the brink of being entirely abandoned, and this even at the very time when they were but a short distance from the pay streak. In one of their drifts about two or three feet, and in another but about six inches were necessary to reach it. M.

Brown's Valley, Yuba Co., Feb. 1866.

[Written for the Mining and Scientific Press.]

Mining about Folsom.

Messrs. Editors:—As I am about leaving this place to visit the mines and miners of El Dorado county, it occurs to me that a few items gathered amidst the hurry of other business, may not be uninteresting to you or your readers.

Experiments with Cement, Gravel, and River Sand.

On one of the bright and beautiful days of last week, I set out early for a ramble among the mines in this neighborhood. Less than a mile distant, near the road leading to Prairie City, I found Messrs. J. & W. C. Salmon, inventors of the Salmon Amalgamator and Settler, busily engaged at ground sluicing. They informed me that they had made some experiments with the gravel cement, found in their claim and throughout the whole surrounding country, in some places to the thickness of twenty feet, which yielded, after grinding in their amalgamator, from $3.50 to $4.50 per ton.—They are confident that it will be found in large quantities, where it will pay well under the stamps. If so, the good people of this place and vicinity have not been fully aware of the bright future before them, when they shall have completed their canal—which will not cost, as I understand, from a survey already made, over thirty or forty thousand dollars. It will furnish water power for an immense number of mills and manufacturing establishments. The wonder is, that such a project has not been undertaken before.

The gentlemen above named also showed me some gold samples (13 fine), taken from sand from the Mississippi and Negro bars, and from others above the bridge and mill-dam, which, after being worked in their amalgamator, assayed, respectively, from the different places, $2.40, $5.20, $8.40, $11.20 and $40.50 to the ton. If we consider the cost of mining and crushing rock from a quartz ledge, compared with shoveling up the fine loose sand on the bars, it speaks well for the prospects of the mines here, if the future experiments, which these gentlemen intend making when the water falls, should prove successful.

Many here are incredulous, because frequently not even the color can be found *on panning out.*

The reply to this is that the gold is found in exceedingly small particles, in a partially decomposed sulphuret, which readily amalgamates on being ground. Time will determine.

Willow Spring Hill.

I next visited a locality about two miles southeast from Folsom, where the miners are generally doing well—some of them having very valuable claims, which cannot be worked out for many years. Occasionally a streak is said to be found that will pay ten cents to the pan. The diggings are surface and hydraulic, yielding from $2.50 to $10 per day to the man, after deducting ordinary expenses.

Mr. B. J. Hodge has a claim here which he considers valuable, having yielded to its former owner from $3 to $5 per day to the man; but it was too far up the hillside to be properly sluiced by the natural fall of water. He consequently prepared a steam hydraulic, with a force pump, the capacity being sufficient to throw two streams of water, 1½ inches, 200 feet—something after the fashion of a fire engine, as I understand it—which will go into operation this week, and from which he expects some $15 or $20 per day to the hand.—It is to be hoped that his most sanguine expectations will be realized, as by this method many hills can be worked which could not be otherwise reached. Mr. H. also made some experiments on a stratum of gravel cement in his claim, which is not so hard as that seen elsewhere in the neighborhood, which worked, in a pan of his own construction, $15 to the ton. He also expressed the opinion that it would pay well to work it under the stamp.

From this point I hurried over to Alder Creek and Independence Flat, where the opposite state of things is met with, and where the dirt is hoisted by horse-power from considerable depths, before it can be sluiced.

On the side of the creek towards Folsom, there are only a few good claims; that of Mr. Working being of the number, which will perhaps average him from $4 to $6 to the man—the greater portion of the ground here having been pretty well worked out. On the further side, near the store of Davis & Co., where they have deep diggings, Messrs. Hart, Matthews, French, Tomlinson, and many others, have much to encourage them, not only as regards the richness of their claims, but as to the amount of ground that remains to be worked.

After leaving this neighborhood, I crossed the American river to Lee's ranch, known as Mississippi Bar. The mines were not at work with few exceptions, in consequence of a want of water, which has damaged the interests of the mines, not only here, but at Big Gulch and Beals' Bar above. This is one instance in which too much of a good thing is worse than none at all. The high water broke the dam and filled up the ditch.

On this ranch the claims are paying well—some of them as high as $6 and $10; at Big Gulch perhaps nearly as well; but Beals' Bar seems to be nearly worked out. Messrs. Small & Parker are now the only miners there, and as there is now no hotel in the place, I have to thank these gentlemen for the genuine miners' welcome they gave me. I should like, had I time, to say more of Folsom and its vicinity, but I must hasten to other diggings.

Folsom, March, 1866. Prospector.

[Written for the Mining and Scientific Press.]

Roasting of Sulphurets---Again.

Messrs. Editors: Your correspondent, J. Mosbeimer, exhibits a great deal of unnecessary ill-temper in discussing the merits of the various processes for reducing sulphurets. He is certainly very excusable for not having made my acquaintance, but such an exhibition of "touchiness," so to speak, at the use of his name in connection with a subject of general public interest, is unwarrantable. He should not object to fair criticism at any time; and if it becomes necessary to use his name in order to identify the authorship of an invention which he desires to introduce to public notice, such use is evidently justifiable. I studiously avoided condemning his "invention," in definite terms, though convinced of its defects. But I will now refer him to the excellent authority for believing myself right in the premises, contained in the very number of your paper in which his communication appears, and also in the previous one; the same being a translation from Carl Frederick Plattner, by G. W. Baker, Esq.

I know not whether Mr. Mosheimer has ever "made the acquaintance" of the distinguished authority above referred to, but certainly there is a marked "difference of opinion," in matters of fact, between him and Plattner. And as to the results, which he asserts have been attained by his "closed retort" process, any one who will take the trouble to examine them by daylight, at Mr. Mosheimer's place on Fremont street, may plainly see that very little oxidation has taken place in the sulphurets, but that, on the contrary, after being re-concentrated, they have come out as bright and about as much sulphureted as before the operation.

In conclusion, Messrs. Editors, I may say I have no malice to gratify in thus arraigning the system of another; but only a desire to place every asserted improvement upon its own merits; for by its practical results only may we know the true value of any discovery in science. A thorough practical test should be desired by no one more than by the discoverer himself. W. H. Manning.

Queries.

Messrs. Editors: In order to understand Mr. Mosheimer's process, would he kindly answer the following questions:

1st.—At what degree of temperature will sulphur combine with carbon?

2d.—At what degree of heat will oxygen combine with sulphur?

3d.—Which has the greatest affinity for sulphur, carbon or oxygen.

An answer to these questions will enable one to understand his process better.

Student in Chemistry.

Origin of Political Terms.—The term *Whig* and *Tory* had their origin in the reign of Charles II, King of England. Some writers derive the former word from *Whaig*, the Scotch for whey, and which is also the term employed by that people to designate bandits. Others think that *Whig* was derived from the motto of the Puritans "We hope in God." the word being formed by taking the first letter in each word of the motto.

Tory is by some supposed to have been derived from the Irish *foory*, applied to beggars and outlaws. Others think it most probably derived from *tar*, the Irish for *bush;* implying that the *Tories* were wild and uneducated, and lived in the woods; and others still from *Tara-ri*, pronounced tory, and meaning 'Come, O King!' an exclamation much used by the Irish adherents of Charles II. The latter is most probably the true origin of the word.

These terms were introduced into this country during the Revolutionary War, and were applied respectively to those who favored the popular movement, and those who ordered to the King.

The word *Radical* arose about the year 1818, and *Conservative* about 1830.

The term *Cabal* was first prominently employed, in a political sense, during the reign of Charles II. of England. The name was given to his ministry by the Opposition, or Tory interest, from the intriguing disposition which they claimed was characteristic of that ministry. It was doubtless all the more taking in the popular mind from the singular fact that the initial letters of the persons composing that body spelled the word. The names were Clifford, Ashley, Buckingham, Arlington, and Lauderdale—CABAL.

The real origin of the term is doubtless the Spanish term *Cabala*, a club, or society, implying a secret organization for intriguing purposes. It is synonymous with *faction*, a body of men less than a *party*, having for their object the overthrow of an existing party, or the foundation of a new one.

Franklin and his Gig.—It is now more than a century since Benjamin Franklin, Postmaster-General of the American Colonies, by appointment of the Crown, set out in his old gig to make an official inspection of the principal routes. It is about ninety years since he held the same office under authority from Congress, and when a small folio (still preserved in the Department at Washington), containing but three quires of paper, lasted as his account-book for two years. If a Postmaster-General now were to undertake to pass over all the established routes, it would take six years of incessant railroad travel, at the rate of one hundred and twenty miles daily; while if he were to undertake the job in an "old gig," he would require a lifetime for its performance. Instead of a small folio, with its three quires of paper, the Postoffice accounts consume every two years three thousand of the largest ledgers, keeping upwards of a hundred clerks constantly employed in recording transactions with more than thirty thousand contractors and other persons.

A Model State.—The Vermonters used to be proud of their State, and we hope that the following picture of it, drawn by the Rutland *Herald*, a few years ago, is still true: "There is but one city in the States, and not one soldier. We have no theaters nor mobs. We have no police, and not a murder has been committed in this State for the last ten years. We have no museums, opera houses nor crystal palaces; but we have homes, that are the center of the world to their inmates, for which the father works votes and talks; where the mother controls, educates, labors and loves; where she rears men, scholars and patriots.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

Office of the Mining and Scientific Press—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his secret to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the Mining and Scientific Press. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $25. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of governments that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, procuring it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensues. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to obtain their prospects of success by further efforts, are invited to avail themselves of our uncqualled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first instalment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 y'rs and 6 mos...	$10
On every application for a design, for seven years.....	15
On every application for a design, for fourteen years....	30
On every application for a patent, for seventeen years...	15
On every caveat.....	10
On issuing each original patent.....	20
On filing a disclaimer.....	10
On every application for a re-issue.....	30
On every additional patent granted on a re-issue.....	30
On every application for an extension.....	50
On the grant of every extension.....	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C....	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No. 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. H. SMITH. W. A. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer apolicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Brndshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. Elwin Davis, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:
Saturday Morning, Mar. 10, 1866.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

IMPROVEMENT IN MINING STOCKS.—We would refer our readers to the stock report, which will be found in our columns this morning. It will be observed that the mining share market has been characterized with a greater degree of activity than has been witnessed for many months past. An extraordinary advance will be noticed in some particular shares, and quite a marked improvement in many others. It is gratifying, moreover, to be able to state that the impression prevails that this improvement is not due to any "hulling" scheme, but to actual improvements in the mines themselves. For some time past discoveries of a most encouraging character have been almost weekly made all along the line of the Comstock lode; one of the latest and most important of which has been announced the past week in the Ophir. This strike has been made in the ninth level, at a point about 200 feet south and west from the Mexican shaft, and 75 feet north of the Central company's line, where a vein of very rich ore is said to have been found fifteen or twenty feet thick. This discovery accounts for the sudden advance in the shares of this mine the past week, from $430 to $800; although they subsequently fell to $740, which was the closing figure at yesterday's Board. These successes will bring about a resumption of work on many of the abandoned claims along the Comstock, and give promise of unusual animation for the coming season.

IMPORTANT OIL STRIKE.—We understand the Bennett Well, on Corte Madera creek, San Mateo county, commenced overflowing with water and oil on the 27th ult. It was still flowing up to last accounts, a week afterwards. The amount of oil coming over was quite small, however, not more than two barrels a day; but quite enough to afford much encouragement to the proprietors of oil property all through that section. The well is only 104 feet deep. The oil is of a very excellent quality, and burns quite freely in its natural state.

ABOUT the 15th of March six Concord coaches will leave Virginia City, Nevada, for Virginia City, Montana.

A NEW EARTH PULVERIZER.

Messrs. Fithian & Young, of Joliet, Ill., have recently invented and patented an important improvement in the plow, which is being received with high favor among scientific agriculturists at the East. It is called the Rotary Plow, or Earth Pulverizer. The main advantages gained by this, over the plows generally in use, are: 1st. The manner in which the soil is turned over. This is accomplished by a *lifting* cut, in such a manner that the plow does not bear an ounce on the subsoil; while those generally in use act like a wedge—pressing down with the same force as that applied to lifting up, and thereby ironing down the subsoil, as it were. 2. Stopping of its pores, and thereby greatly diminishing the tendency of the water to work its way upward when the dry season approaches. This is an evil entirely overcome by this machine, which is so constructed that the revolving cutters strike the ground very much as a horse's hoof strikes it when he is pulling hard; but instead of coming down subsequently with the heel, the foot must be supposed to continue a revolving motion, which of course would lift up whatever ground it took hold of.

3d. The machine effects a most perfect pulverization of the ground after it is so lifted up. This part of the work is accomplished by a series of revolving knives, which are made to pass rapidly through the soil, they also giving a lifting cut, and dividing it up into the thinest possible slices—so fine that it is completely pulverized, as is sometimes done by chopping it up with a hoe. The operation of this machine, however, does it much more perfectly than it can be done with a hoe, at the expense of almost any amount of time. Some idea of what is done may be inferred from the fact that the gearing is so arranged that with the horses walking two and a half miles per hour, there are over 3,000 of these knives passing through the ground every minute. The ground is said to be left as though it had been picked up and sifted over the earth! It is claimed that with this machine one man and four horses will do as much work as five men with five plows and ten horses can do with the ordinary plow, to say nothing about the subsequent pulverization required. We shall soon be able to give an illustration and more particular description of this machine, which is now about to be introduced into California.

ANOTHER PADDLE WHEEL.—Adolph Heuston, an ingenious mechanic of this city, has invented what he calls "Heuston's Self-Feathering Paddle Wheel," for use upon steamers. The feathering of the paddles is effected by a very simple contrivance, consisting of a lever working solely by the power of gravitation, which locks and unlocks the bucket as the wheel revolves, each paddle working independently of the others. The invention has been tried upon a four-foot model, and worked to the satisfaction of several competent mechanics and scientific men who witnessed the trial. A model of the invention is on exhibition at the Merchants' Exchange, for the inspection of steamboat men and others interested in such matters. A patent has been applied for.

THE SCREW PADDLE-WHEEL.—A United States patent has been granted for this valuable California invention, and we are informed that the wheel will be speedily tested on a large scale, both here and in the harbor of New York. The convictions we have heretofore expressed as to the novelty and value of this device have been fully confirmed by the award of letters patent by the Governments of England, France, and several other foreign Governments, and the theory of the inventor seems to have been thoroughly vindicated by all the tests hitherto made. In behalf of the interests of navigation, we ardently hope its practical working, on a large scale, may realize the most sanguine expectations of the proprietors as well as the predictions of its friends. A model of the invention may be seen at the office of E. C. McComb, No. 1 Government House, in this city.

A NEW AMALGAMATOR.—Mr. Andrew Hunter, of this city, well known as the inventor of a very excellent grain separator, and a concentrater for saving sulphurets, has recently perfected still another invention, to be employed in amalgamating the precious metals. It is so constructed as to be worked in charges, combining the purposes of an amalgamator and concentrator; or it may be worked continuously, as an amalgamator alone; receiving the sand direct from the batteries, and discharging automically.

The machine consists of a square wooden box, with sides as high as may be desirable. The floor is composed of oak or any other hard wood, sawed into blocks, and set upon end. Upon this floor, and attached to suitable supports, is arranged a series of rubbers, shod with iron and working back and forth with an oscillating motion, making about sixty vibrations per minute. By this rubbing motion the particles of gold receive a slight trituration, which tends to remove any impurities which may have accumulated upon them, to the hindrance of their free amalgamation with the quicksilver. All miners who have been accustomed to collecting free gold by using quicksilver in a pan, are aware of the great advantage, and, at times, absolute necessity of using the hand to rub the gold about in the quicksilver to make it amalgamate. The design of this machine is to make that operation continuous, and by it every particle of the pulp, as it comes from the stamps, is made to pass in succession under a series of these rubbers, which may continue *ad libitum*.

A working model has been set up in this city and submitted to the inspection of quite a number of practical miners, who have expressed very favorable opinions of it. Mr. Hunter is now in Grass Valley, where he has a contract for putting up one or more of them at one of the quartz mills in that place. When the machine is put into practical operation we shall report with regard to its success.

MORE MINING SALES IN GRASS VALLEY.—We understand that a one-fourth interest in the Ione claim, to which we alluded, editorally last week, and which is located about two miles from Grass Valley, near Payne's ranch, has been sold within a few days for the sum of $50,000, to Louis Sloss & Co., of this city. This mine has been promising very finely, and a short time ago gave the most unmistakable evidences of great richness.

The Grass Valley *Union* of March 2nd says that Mr. Gerstler, the day before, concluded the purchase of the Union Jack mine. This mine is a western extension of the Ione. This purchase was also made for Messrs. Sloss & Co., at a cost of $50,000. The late owners of this valuable claim were Con. Reilly, Martin Ford, Dave Watt, Pat Lee, Frank Morse, James Mason, A. Salaman, J. L. Sykes, of Grass Valley, and Wm. Alvord, of San Francisco. The Union Jack is a well developed mine, and the purchasers no doubt have an excellent thing.

ARTESIAN WELLS CONDEMNED.—The San Jose *Mercury* says the great number of flowing artesian wells in and about San Jose have completely dried and rendered worthless hundreds of acres of laguna lands in the southern portion of the county. Owners of these lands begin to complain at this trespass on the part of the wells, and it is proposed to divert the waters of Cayote Creek to the lagunas, which will furnish an inexhaustible supply for the lands in question as well as for the artesian wells.

PATENT ALLOWED.—Mr. J. Hendy, of this city, has received notice from the Commissioners of Patents, at Washington, that letters patent for improvements on the Prater Concentrator have been allowed him. These improvements were fully described and illustrated in our issue of February 3d.

REESE RIVER BULLION.—Night before last, says the Virginia *Enterprise* of March 2d, sixteen bars of bullion from Reese River, valued at $13,542, arrived in that city. The bullion was taken from the Savage mine, near Austin.

ANTHRACITE COAL.—The steamer Labouchere, which arrived at this port, yesterday morning, from Victoria, brought 105 sacks of coal from the anthracite coal mine, lately opened by the Queen Charlotte Company. This coal is pronounced fully equal to the best Pennsylvania anthracite for foundry purposes. Persons having a curiosity to examine the coal will probably find it on Market street wharf today, where the steamer is discharging. The company will soon commence making regular shipments to this city. There are two mines already opened, and a full cargo may be expected within three months. A full description of this coal, with an analysis of it, was given in the MINING AND SCIENTIFIC PRESS of September 18th, 1865.

DISCOVERY OF PLACER DIGGINGS IN LOWER CALIFORNIA.—A correspondent of the *Alta*, writing from La Paz under date of the 14th ult., says there is a little excitement in that neighborhood in the way of placer gold diggings, which have been discovered some miles south of the San Antonio and Triunfo silver districts. A number of sluices have been constructed, and sufficient gold to pay $4 and $5 per day to the man. The diggings as far as discovered, cover an area of forty square miles. Water is yet scarce, but it will be brought to the place if gold is as abundant as some persons believe. The general appearance of the district is very similar to that of the auriferous hills of California. The silver mines show little change. If it were not for the war much would be done.

RICH STRIKE.—The Nevada *Transcript* of March 5th says: "Karney & Co., prospectors, have struck some rich rock on the third extension of the Star Spangled Banner ledge. The ground of these parties is located near where the lead crosses Little Deer Creek. They have only sunk a short distance, but the rock taken out is filled with free gold and rich looking sulphurets. They have a splendid prospect and a wide ledge, and there is no reason why their claim should not prove as rich as the Star Spangled Banner.

CENTRAL CITY, COLORADO.—A correspondent from Central City, inclosing his subscription for the PRESS, requests us to give a list of a few books most serviceable to miners, and which can be obtained in this city. For the benefit of our correspondent and others, we would name the following: Dana's Mineralogy; Makin's Manual of Metallurgy, (fully noticed in our last); Philip's Metallurgy; Overman's Metallurgy of Silver Ores and Silver Mines, by Prof. Blake; Kustel's Silver Processes of Nevada; Bodeman & Kerl's Assaying, translated by W. A. Goodyear, and Ure's Dictionary. Any of these works can be obtained in this city. For further reference we would call the attention of readers to Bancroft's catalogue of scientific books, advertised from week to week in this paper, and a copy of which will be mailed by Bancroft & Co., to any address upon application.

IONE, REESE RIVER.—A correspondent writing from Ione says that the mining prospects in that vicinity are now very flattering, and that the town is looking up for a bright future. A 20-stamp, first class quartz mill has recently been started, and a 10-stamp mill is well under way. It is in contemplation to put up quite a number of other mills next season. Our correspondent further adds that "The MINING AND SCIENTIFIC PRESS is growing in the estimation of our best informed men."

THE SPECIMENS OF ORE sent us by our correspondent from Monitor, Alpine county, do not appear to present anything especially unusual, unless it be the brightness of the oxide of iron with which they are coated. They will hardly warrant the trouble of an assay, and an analysis, even, would not be likely to develop anything of importance.

SOME very good ore has just been found in the Imperial mine, near the west casing, says the Virginia *Enterprise*. A 700-foot level will shortly be opened in the mine.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

San Francisco, Saturday Morning, March 10, 1866.

Capital is readily acceptable to borrowers in good credit at 1@1¼ ₱ cent. per month, and some important negotiations have been made this week upon still more favorable terms. The difficulty experienced in loaning funds to be employed for regular business purposes, and upon real estate and other collateral usually preferred by capitalists, has diverted some means hitherto idle into Stock channels since the late rise.

Receipts of Treasure from domestic sources, since the date of our last reference, amounted to some $1,200,000. During the same period, the Branch Mint in this city has taken $425,000 for coinage.

The supply of Bullion on the market is thought to be fully adequate to the wants of shippers, and owing to the low rates ruling in New York, Gold Bars have been in rather less active request at 840@850. Silver Bars, for refining purposes, have been sold as high as 2 ₱ cent. premium, but the current quotations at the close, for average grades are 1@1¼ ₱ cent. premium.

Currency Bills on the Atlantic are offered at 30 ₱ cent. premium on gold. Telegraphic transfers are made at 2¾ ₱ cent. premium, and Sight Drafts, payable in coin, are quotable at 2¾ ₱ cent. premium (including stamp). Sterling is selling at 48¼@48½d for best Bankers' Bills; Commercial at 49¼@49½d.

Legal Tender Notes have been inactive, but firmer at enhanced rates, and sales were made at 75½c, s 30, closing at 75¾c asked. Our latest telegraphic advices from New York quote Gold at about 132½.

The Share market has been characterized by unusual activity this week, and the recorded transactions at the Board show a larger weekly aggregate than for many months past. The present excitement upon the Stock exchange, the extraordinary advances in some shares, and the material improvement in others, have been occasioned solely by the very favorable developments made recently, and the discouraging views entertained by some croakers a short time since as to the waning productiveness of the Comstock lode, were not, it would seem, based upon sound premises, if its present appearance in certain localities affords any evidence of intrinsic value or future permanency.

Crown Point has been dealt in to the extent of 40 feet, advancing from $1,000 to $1,375, buyer 30; receding to $1,230, and closing at $1,325. During the week ending March 2d, 663 tons of ore were hoisted to the surface. In running some 20 feet south of the south incline on the 300-feet level, the ore is said to be improving in quality and quantity. A new body of ore was met with recently, in drifting west, some 30 feet above the lower level. This deposit is said to be 3½@4 feet wide, and promises to become a valuable addition to the resources of the mine. The aggregate receipts of Bullion last month amounted to $153,640.93, the ors reduced averaging $45.63 per ton. There is some talk of a dividend for the month of February.

Hale & Norcross receded from $1,200 to $1,040, rallied to 1,085, dropped to $1,050, then sold at $1,080, and closed at $1,075. No material change has taken place the past few days in the general character of the lode in the 700-feet level. Its width, as disclosed in the different cross-cuts, varies from 12 to 25 feet. Sinking has began for a new level below, and a drift is also under way across the 535-feet level, preparatory to sinking, with a view to connect that and the 700-feet level. The mine is now producing some 50 tone of ore per day, worth from $40 to $45 per ton; and receipts of Bullion this week have amounted to $14,000. A dividend is deemed probable for the current month.

Savage rose from $940 to $1,100, fell to $1,010, rallied to $1,070, buyer 30; then sold at $990, and closed at $1,040, b. 30—some 70 feet in all changing hands. The product of the mine is averaging about 65 tons of ore per day, and the total yield of Bullion last month exceeded $150,000. The last "clean-up" of 500 tons of ore at the Marysville mill averaged $54 per ton.

Gould & Curry advanced from $900 to $1,070, buyer 30, and closed at $1,010. There is no new feature in any portion of this claim. Little or no progress has been made recently in the exploration of the 2d Station, but drifting continues vigorously on the 4th.

Ophir has attracted decided attention this week, and nearly 600 feet changed hands, advancing from $430 to $770, receding to $700, rallying to $820, dropping to $750, and closing yesterday at $740. In drifting south and west, some 200 feet from the Mexican shaft, in the 9th Gallery, a very promising body of ore has been found. This deposit is about 75 feet north of the Central Line, and is said to show in the cross-cut a width of 15 feet.

Yellow Jacket has been active, and 170 feet were sold, rising from $420 to $510, receding to $470, then selling at $485, and closing at $525@500. Drifting continues from South shaft, and favorable indications have been met with this week.

Chollar-Potosi has been in some favor, and nearly 400 feet changed hands, advancing from $352 to $410, buyer 10; receding to $472, and selling yesterday at $362@380. The Piute Station of the Potosi is said to be looking better, and continues to turn out a large supply of ore. The stope over head of incline in the Bajazette Ground discloses an "enormous" body of low grade ore, which is being easily and cheaply mined. In the station 60 feet below Potosi Tunnel, some good ore has been found in the old drift, 70 feet south, and in the drift east the south end shows ore about 10 feet wide. The drift to the ledge from the new shaft is in 195 feet. During the week ending March 2d, 1,015½ tons of ore were sent to custom mills.

Alpha fell from $290 to $275, rose to $340, then sold at $305, and closed at $310. Belcher advanced from $225 to $300, then declined to $260, and selling yesterday at $275@280.

Empire Mill and Mining company is in much better favor, and small sales were made, advancing from $210 to $245, and closing at $245 bid. Some 1,500 tons of ore were raised to the surface last month, and about 1,200 tons were reduced, producing $36,000. During the past ten days a better quality of ore has been found. A dividend is anticipated for the month of March.

Imperial rose from $127.50 to $175, fell to $147, rallied to $150, and then sold at the close at $160. The aggregate receipts of Bullion last month amounted to $74,025.05. This company had a surplus on hand of some $30,000 at the beginning of the month, with an indebtedness of $4,000, maturing on the 28th instant. The Gold Hill mill has commenced to crush ore from the Holmes mine, and the Alta shaft is down, in all, some 90 feet.

Confidence rose from $70 to $85, fell to $70, rallied to $75, and closed at $75. Overman rose from $63 to $97, fell to $87, then advanced to $95, closing at $95. Bullion has been dealt in within a range of $60@86, closing at $80.

The aggregate recorded sales of Stocks, since Saturday last, amounted to $1,050,264.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 76	$ 76¼
Gov. Legal Tender Notes	75¼	75¾
State Bonds, 7 ₱ cent.	85	88
San Francisco 10 ₱ cent.	..	..
San Francisco Bonds, 1855, 6 ₱ cent.	70	..
San Francisco Bonds, 1858, 8 ₱ cent.	07	..
Sacramento City Bonds, 6 ₱ cent.	..	..
Sacramento County Bonds, 6 ₱ cent.	53	60
Marysville Bonds, 10 ₱ cent.	75	..
Stockton Bonds, 10 ₱ cent.	60	65
Yuba County Bonds, 10 ₱ cent.	75	80
Butte County Bonds, 10 ₱ cent.	75	78
California Navigation Co.	55	57
State Telegraph Stock	30	32
San Francisco Gas Co.	..	..
Sacramento Gas Co.	..	75
Spring Valley Water Co.	60	60½
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	47	50
Central Railroad Co.	..	65
North Beach and Mission	49	49
MINING STOCKS.		
Ophir	$ 725	$ 730
Gould & Curry	1000	1010
Empire M. & M. Co.	245	250
Sierra Buttes Quartz Co.	....	....
Central	....	....
California	....	....
Savage	995	1000
Chollar-Potosi	362	365
Hale & Norcross	1080	1090
White & Murphy	....	....
Sierra Nevada	....	10
Yellow Jacket	495	500
Overman	87	88
Cedar Hill Tunnel	....	....
Wide West	9	10
Crown Point	1300	1310
Antelope	....	....
Emeralda	1	5
Etna	....	....
Real del Monte	....	15
Bullion, G. H.	80	81
Eureka	....	....
Buckeye	....	....
Imperial	160	170
Alpha	305	310

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	8 50	@	7 00
Do Superfine	6 50	@	6 75
Corn Meal, ₱ 100 lb		@	3 50
Wheat, ₱ 100 lb	2 10	@	2 25
Oats, choice, ₱ 100 lb	2 10	@	2 20
Barley, ₱ 100 lb	1 00	@	1 15
Beans, ₱ 100 lb	4 50	@	5 50
Potatoes, ₱ 100 lb	1 05	@	1 25
Hay, ₱ ton	10 00	@	16 00
Live Oak Wood, ₱ cord	8 00	@	10 00
Beef, on foot, ₱ lb		8@	7
Beef, extra, dressed, ₱ lb	12½	@	15
Sheep, on foot	1 00	@	2 00
Hogs, on foot, ₱ lb	9	@	10
Hogs, dressed, ₱ lb	13	@	14
Groceries, Etc.			
Sugar, crushed, ₱ lb	16	@	—
Do China	10	@	12½
Coffee, Costa Rica, ₱ lb	25	@	26
Do Rio	25	@	—
Tea, Japan, ₱ lb	90	@	1 00
Do Green	70	@	1 00
Hawaiian Rice, ₱ lb	8	@	10
China do	7	@	8
Coal Oil, ₱ gal	1 25	@	
Candles, ₱ lb	24	@	26
Ranch Butter, ₱ lb	40	@	45
Isthmus do	35	@	45
Cheese, California, ₱ lb	20	@	26
Eggs, ₱ doz	35	@	—
Lard, ₱ lb	22	@	23
Ham and Bacon, ₱ lb	25	@	—
Shoulders	20	@	22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	40	@	55
do pickled ₱ lb		—@	—
do Oregon	35	@	40
do New York, ₱ lb	50	@	—
Cheese, ₱ lb	20	@	35
Honey, ₱ lb	30	@	40
Eggs, ₱ doz	45	@	—
Lard, ₱ lb		@	28
Hams and Bacon, ₱ lb	28	@	28
Cranberries, ₱ gal	1 00	@	—
Potatoes, sweet, ₱ lb		8@	—
do Irish, ₱ lb		@	—
Tomatoes, ₱ lb		@	—
Onions, ₱ lb		@	8
Apples, No. 1, ₱ lb		6@	10
Pears, table ₱ lb		8@	25
Plums, dried, ₱ lb		@	—
Peaches, dried, ₱ lb		@	—
Oranges, ₱ doz	75	@	1 00
Lemons, ₱ doz	1 00	@	1 25
Chickens, apiece	87	@	1 12
Soap—Pale & C. O	10	@	12
Castilo	14	@	15

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

San Francisco, March 10, 1866.

Iron.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	60	@	—65
American Pig ₱ ton	55	@	60
Refined Bar, bad assortment, ₱ lb	3	@	—
Refined Bar, good assortment, ₱ lb	3½	@	—
Boiler No. 1 to 4	4	@	4
Plate No. 5 to 9	4½	@	6
Sheet No. 10 to 13	4	@	—
Sheet No. 14 to 20	5	@	—
Sheet No. 24 to 27	5½	@	—

Copper.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing ₱ lb	36	@	38
Sheathing, Old	20	@	30
Sheathing, Yellow	30	@	32
Sheathing, Old Yellow	12	@	13
Bolts	13	@	16
Composition Nails	30	@	32

Tin Plates.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	14	@	15
Plates, I C Charcoal	12	@	13
Rooling Plates	11	@	12
Banca Tin Slabs, ₱ lb	30	@	5
Steel.—English Cast Steel, ₱ lb	12½	@	16
Quicksilver.—Per lb	—	@	65
For export	55	@	—
Zinc.—Sheets ₱ lb	9½	@	10
Lead.—Pig ₱ lb	8	@	—
Sheet	10	@	12
Pipe	10	@	12
Bar	10	@	11
Borax—California, ₱ lb	20	@	23

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the Mining and Scientific Press. 19v11tf

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. The Mining and Scientific Press Patent Agency has strictly complied with the requisitions of the Department, and properly files all necessary papers as Claim Agents.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

Name and Location.	Am't of Assessment.	Day Adv'g Delinq't List.	Day of Sale.
Arbitrias, Chihuahua, Mex., $1		Mar 29	April 9
Alpha, Gold Hill, Storey co., Nev., $30		Mar 24	April 24
Boston Copper, 50c		Mar 3	Mar 20
Bunker Hill C. G. & S. M. co., $1.50		Mar 23	April 4
Bullion			$10 00
Bacon M. & M. co		Meeting Mar 6	
Consolidated Silver Hill M Co., Nev., $2		Feb 17	Mar 3*
Comet Petroleum co., 30c		Mar 31	April 14*
Consolacion, $1.25		Mar 31	April 15
Capital, Lander co., Nev., $5		April 3	April 19
Cassell, Nevado co., Cal., $5		Feb 20	Mar 8
Cole, Storey co., Nev., $1		Mar 15	Mar 31
Chiplonca, Sonora, Mex., $5		Mar 14	Mar 26
California, Virginia Dist., Nev		Meeting March 12	
Daney		Annual Meeting Mar 5	
Eagle Quartz, Amador co., Cal., $1		April 7	April 25*
Evoca, Del Norte co., Cal., 25c		Mar 3	Mar 19*
Evening Star, Humboldt co., Nev., 50c		Mar 31	April 14*
Equality Copper co		Annual Meeting Mar 14	
Emerald Copper, $1		Feb 10	Feb 24
El Taste		Sale March 10	
Franco-Americano, San Antonio, L. Cal., 50c		Mar 17	Mar 28
Oco. Washington, Alpine co., Cal., $1.50		Ear 24	April 10*
Honest Miner, Lander co., Nev., $1		April 7	April 18*
Hale & Norcross		Meeting March 14*	
Hauscom, Copper, Del Norte co., 15c		Mar 31	April 14*
"I.X.L.," Alpine co., Cal., $2.50		Mar 5	Mar 19
Keokuk, Contra Costa co., Cal., 10c		Mar 17	Mar 31*
Kearsarge		Feb 17	Mar 16*
Jewett, Storey co., Nev., $1		Mar 3	Mar 20*
Jeffrey Oil, 50c		Feb 26	Mar 3
Leland, Arizona, 5c		Mar 3	Mar 19*
Lady of the Lake, Arizona		Mar 3	Mar 19*
Libertad, Sonora, Mex		Meeting March 7	
London Quartz, 50c		Feb 20	March 10
La Fernandez, Sonora, Mex., $5		Mar 1	Mar 15
Lady Bryan, Storey co., Nev., $1		Apsil 9	April 21
Mosquito, Calaveras, Cal., $5		April 7	April 23,
Morning Star, Alpine co., $1		Mar 13	Mar 19
Maria, Chihuaha, Mex., $2		March 31	April 14
Maggie		Sale Mar 13	
Matamoras, Chihuaha, Mex		Meeting Mar 20	
Nonpareil, $1		Feb 20	Mar 10
Nuestra, Sonora de Guadalupe, Mex., $1		Mar 31	April 18
Oxford Beta, Esmeralda, Nev., 50c		April 7	April 25*
Old Colony, Austin, Nev., $4		April 14	April 28*
Overman, Storey co., Nev., $15		April 3	April 18
Providence, Nevada co., Cal., $1		Mar 17	Mar 31*
Planet, Copper		Meeting Feb 22	
Patrocinia & Polores, Chihuahua Mex., $2.50		April 1	April 10
Peninsula, Lower Cal., $5		April 3	April 14
Rodgers, Storey co., Nev., $3		Feb 27	Mar 12
Refugio, Chihuahua, Mex., $2½		Mar 31	April 14
Refugio, Mex		Meeting April 2	
Southern Light, Lander co., Nev., $12.50		Mar 10	Mar 26*
Siskiyou, M. co		Meeting Mar 12	
Siempre Viva, Sinaloa, Mex., $2.50		Mar 27	April 7
Siempre Viva, Sinaloa, Mex		Annual Meeting Mar 18	
Sierra Valley, Plumas co., Cal., $1		Mar 5	Mar 17
Sierra Silver, Douglas co., Nev., $3		Mar 9	Mar 23
Salambo Copper, 50c		Mar 17	April 5
Sierra Nevada, Storey co., Nev., $2		Mar 13	Mar 28
San Marcial, Sonora, Mex		Meeting Mar 20	
United States, Storey co., Nev., 50c		Mar 17	Mar 31*
Walipi, Arizona		Annual Meeting, Mar 21*	
Yuba, Yuba co., Cal., $2		Mar 31	April 14*
Yellow Jacket, Storey co., Nev., 150		Mar 17	April 17

*Those marked with an asterisk (*) are advertised in this journal.

Rates of Advertising

IN THE

MINING AND SCIENTIFIC PRESS.

Mining Advertisements.

Notices of Meetings, per square, one week	$1 00
Notices of Meetings, per square, four weeks	2 50
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Assessment Notices, of more than usual length, for each additional square	2 50
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Delinquent Sales, per square, three weeks	2 50
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☞ *Ten lines of solid advertising type constitutes a square.* ☜

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The Mining and Scientific Press is published every Saturday morning (containing sixteen pages—size of *Harper's Weekly*) at the following rates:

One copy, one year, by mail, in advance	$5 00
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One copy, six months, by express	3 50
Five copies, one year, by mail, in advance	20 00
By city carriers, per month	50
Single copies	12½
Monthly Series (or parts), containing 4 Nos	50
Monthly Series, containing 5 Nos	62½

The Circulation of the Press, already extensive, is rapidly increasing, and substantial men who can profit by widely disseminating information of their business amongst the most intelligent, industrial and industrial classes of the Pacific States and Territories will find no more effectual or economical medium for advertising.

DEWEY & CO., Proprietors.

Patent Agency and Job Printing Office, 505 Clay street, San Francisco. July 1 1865

Too True.—The following picture of the miner's life, by a letter writer who visited Virginia City the first of the month—pay-day—portrays in colors too true the end and aim of a large class of those who, though pioneers in discovering and invaluable as the bone and sinew to open and develop mines, are good for nothing to themselves, always drudging and always complaining of the hard fate meted out to them:

"Virginia is lively, the city is astir with busy life, and its pulses throb with feverish excitement—alarming fact but true, why? Every thirty days all the mines and mills of Storey county and adjacent burgs pay off their corps of employees, and for a few days thereafter whisky shops, hurdy-houses, theaters and red-curtained palaces thrive on the toil—strained gold of the "honest miner." Soon he gets broke, and until another thirty days roll around on heavy clogged wheels, the poor devil has only to work, work, work, and the city has only to wag, wag, wag, as slow as stages, until old gunny-sacks pays off the red-brawned muscle that makes a monthly fool of itself."

Trades and Manufactures.

Pacific Glass Works

Are now prepared to execute orders for the manufacture of

All Kinds of Bottles to Order.

Office, No. 621 Clay street, San Francisco. 3vII-3m

JOHN DANIEL,

(SUCCESSOR TO O. GORI)

MARBLE WORKS,

No. 408 Pine st. bet. Montgomery and Kearny, San Francisco.

Mantels, Monuments, Tombs, Plumbers' Slabs,

Etc., On hand and Manufactured to order.

☞ Goods shipped to all parts of the State. Orders respectfully solicited. 5v3-3m

NATHANIEL GRAY,

General Furnishing Undertaker,

641 Sacramento St., corner of Webb, San Francisco.

Barstow's Metallic Burial Caskets and Cases.

1tf

THEODORE KALLENBERG,

Maker of Models for Inventors.

MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.

No. 418 Market street, San Francisco. n7-tf

Palmer's Patent

ARTIFICIAL LEG,

Manufactured in Philadelphia, Penn.

JARVIS JEWETT, AGENT.

629 Washington Street, San Francisco, Cal. 10v3-1m

DENIS WHELAN,

Fashionable Boot Maker,

REPAIRING NEATLY DONE, AT SHORT NOTICE.

No. 17 Fourth Street,

Near Market street, San Francisco.

15v10-1m*

FIRE, HYDRAULIC & SUCTION HOSE,

And Leather Belting.

M. M. COOK & SON,

801 Battery Street, San Francisco,

Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.

The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO

CORDAGE MANUFACTORY.

CONSTANTLY ON HAND,

A Large and Complete Assortment

—OF—

MANILA CORDAGE,

FOR MINING PURPOSES

—ALSO—

WHALE LINE, BALE ROPE, ETC.,

Manufactured from Pure Manila Hemp.

Hoisting Ropes for Deep Shafts,

—ALSO—

Lines for Ferry Boats.

Manufactured to Order.

Office at **TUBBS & CO.'S,**

Nos. 611 and 613 Front street.

Manufactory at the Potre 14v10

Professional Cards.

Our Patent Agency.

The Patent Agency of the Mining and Scientific Press has been signalized with remarkable success during the past two years. The importance to the inventive genius of this coast of a thorough and reliable agency for the solicitation of Letters Patent from the United States and foreign Governments cannot be over-rated, and the Proprietors of the Press, feeling the responsibility which rests upon them, and the reward which must follow the faithful performance of their trusts, will take care to afford inventors every advantage to be secured to them through a competent and responsible agency upon this coast.

S. C. BUGBEE & SON,

ARCHITECTS.

DESIGNS, MACHINE DRAWINGS, AND DRAWINGS ON WOOD.

74 and 75 Montgomery Block

SAN FRANCISCO. 25v10-3m

FREDERICK MANSELL.

Mechanical & Architectural Draughtsman,

No. 422 California street, corner of Leidsdorff.

Drawings of Models made for parties applying for patents at Washington or London. mar23-tf.

JAMES M. TAYLOR,

Attorney and Counsellor at Law,

COURT COMMISSIONER, appointed by the Fourth District Court, COMMISSIONER OF DEEDS for Nevada and Massachusetts,

Court Block, San Francisco.

Entrances opposite City Hall, Merchant street, and 636 Clay street. 14v11tf

DR. H. AUSTIN,

DENTIST,

No. 634 Washington Street,

Between Montgomery and Kearny Streets

[OVER SAN FRANCISCO BATHS]

SAN FRANCISCO. 20v10-qy

AUGUST KUNAST,

Stock Broker,

Member of the

San Francisco Stock and Exchange Board,

Buys and Sells Stocks, Bonds, Etc.

Office, No. 540 Washington Street, San Francisco. 2v10

G. F. DEETKEN,

Mining Engineer and Metallurgist,

Address - - - - - San Francisco.

25v9

WILLIAM P. BLAKE,

MINING ENGINEER,

Will make Surveys and Examinations of Mines, or give advice regarding their working, the erection of Machinery, etc.

Office at Union Iron Works, corner of First and Mission sts., or Lock Box 2,077 Post Office, San Francisco. 11v22qy

W. O. ANDREWS,

NOTATY PUBLIC

—AND—

COMMISSIONER OF DEEDS,

626 Montgomery Street.

10v8qy

GEORGE H. BAKER,

Lithographer & Engraver,

No. 522 Montgomery St., San Francisco.

MINING STOCK CERTIFICATES LITHOGRAPHED IN MOST ARTISTIC STYLE. CALL AND EXAMINE SPECIMENS.

10v8-tf

SHERMAN DAY,

Mining Engineer,

No. 57 Montgomery Block, San Francisco,

Will examine, survey and report upon mines, and consult and advise concerning investments in mining property, or the machinery management and expenditures of mines.

25tf

To Mining Companies.

A GENTLEMAN OF MUCH EXPERIENCE AS A MINING Superintendent, in England, Spain, and on the Pacific coast, and one intimately acquainted with every department of mining, and with nearly every class of mineral, is desirous of securing a position as Superintendent of some mining operation in California or Nevada. The applicant was for four years Superintendent of the New Almaden Quicksilver Mine, in this State. The best of reference given on application at this office.

San Francisco, Oct. 12, 1865 .5v11tf

REMOVAL.

MONS. A. COULON,

Informs his patrons that he has removed his DRAWING SCHOOL from Pine street to

410 Kearny Street.

Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done. 20v11-1m

Volume Twelfth.—The Mining and Scientific Press, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

Metallurgy.

MOSHEIMER'S CONCENTRATOR

RECEIVED THE FIRST PREMIUM

From the ROYAL POLYTECHNIC SOCIETY, in Cornwall, and was highly recommended by the Commissioners as the most Simple and Effective Concentrator for all kinds of Ores.

Every Quartz Mill ought to have them, as they not only save Gold and Silver, but also the Quicksilver and Sulphurets, without extra labor. They can be built entirely of wood at the mine, and will separate more perfectly in one operation, than any other Concentrator in use. Apply to

J. MOSHEIMER,

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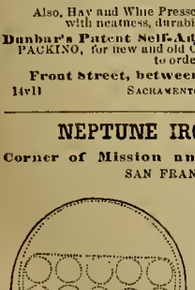

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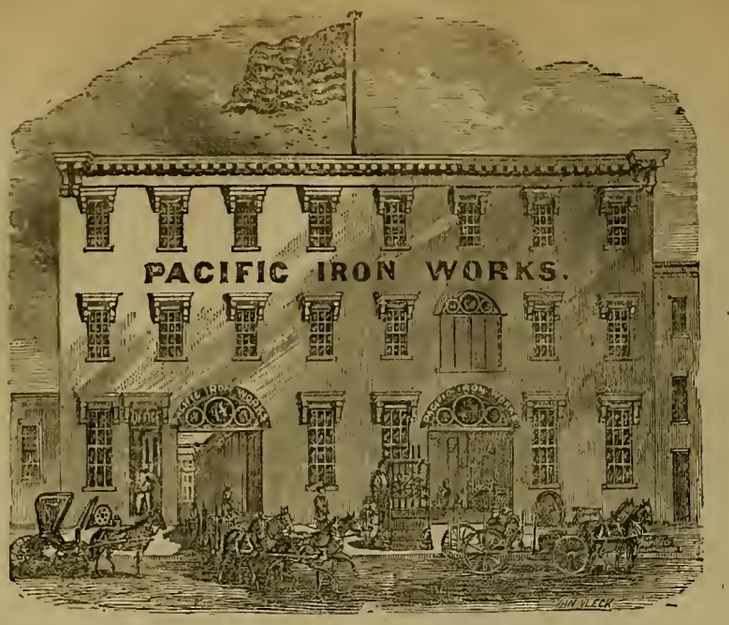

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We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that its followed by none of those debilitating diseases such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, Intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Urethal Strictures, etc., which we well know result from the free use of mercury and other metallic drugs, together with stimulants and vegetable poisons given to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in its facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any like establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douche Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to males, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Mercurial, Lead, and Oak Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have yet used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, retorting metals, the malaria of rivers and low marshy grounds. Where there was a fair constitution left, even when drugs had been applied for months and years without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflammatory and Mercurial Rheumatism; Paralysis; Lung, Bronchial and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Scrofula, Piles, Inflammation of the Bowels, Chronic and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is so favorably situated to furnish so many home comforts and hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only truly healthful boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the medication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in the bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institution in San Francisco, induced us to establish and has induced us to make this class of human afflictions a specialty of our Insitution. We have treated (mostly in the cure), over 300 females, several of whom had been "bedridden" for months and years, and all have been decidedly benefited, with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

There is not one female invalid in twenty that has been suffering from nervous debility or diseases peculiar to her sex, that cannot be permanently cured by spending from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn of a single regret from husband or wife of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has found successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo-Therapeutic College.

To all whom it may concern:

I have known Dr Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as an honest, faithful, skillful man of character, and as such can cheerfully recommend him to the public.

For the good of Science.
L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

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3v12-3m **C. J. PLATT, Principal.**

ANNUAL REPORT

—OF THE—

Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLAture of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire.....$12,973,949
Marine..... 484,408

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Alson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Moyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	O. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. C. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

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Opinions of the Press:

THE GOLDEN ERA.—We would call the attention of all newly-arrived Californians to this excellent weekly cotemporary. We have seen the Era so frequently at the family fireside, and in the rude cabins of many industrious miners, that it would seem superfluous to recommend it to old Californians. It is the oldest literary journal on the coast. [S. F. Mining and Scientific Press.

THE GOLDEN ERA, which has just entered upon its fourteenth volume, is fully entitled to be considered as THE literary paper of the Pacific coast. Its proprietors understand the wants of the community, and furnish their readers with all the popular works of fiction as fast as the proof sheets are received from the Eastern States and Europe, and with a greater variety of original matter in the line of light literature, than can be found in any similar paper on the continent.—[S. F. Alta California.

THE GOLDEN ERA has entered upon its fourteenth year of publication. How many competitors for public favor have been started during this time, and not possessing the freshness and originality of the GOLDEN ERA, have struggled through a short, sickly existence—at last to "flicker out"—almost unnoticed. No single paper in the State is more read and admired, and friends in the States appreciate it fully as highly as the thousands here who weekly scan its columns. It is no copyist, being in all its main features Californian, and unlike the "story papers" in general, its contents are interesting to all who take an interest in the literature of this coast.—[Napa Reporter.

THE GOLDEN ERA, as a good family paper, as a literary production, cannot be surpassed within the limits of America, and America heats the world in publication of first-rate literary papers. It is filled to overflowing with excellent reading matter, original and selected prose and poetry. It is now publishing, from advance sheets furnished from New York, two very interesting stories, each chapter of which is alone worth the subscription price of the GOLDEN ERA.—[Folsom Telegraph.

THE GOLDEN ERA is decidedly the best journal of the kind on this coast, and, we had almost said, in the United States. It is prepared with great care and labor, and publishes an immense amount of reading matter. The serial stories of the best authors are printed in its columns, and its local gossip is always pungent, racy and instructive.—[S. F. Examiner.

THE GOLDEN ERA is one of the best journals of its class in the whole country, and is carefully and intelligently conducted.—[S. F. American Flag.

THE GOLDEN ERA is enlarged by the addition of eight columns of reading matter. It was never more worthy the support of the reading public than at present.—[S. F. Morning Call.

THE GOLDEN ERA is decidedly the best family paper published in the State and we are pleased to learn that it is in a flourishing condition.—[Sacramento Bee.

THE GOLDEN ERA, as a strictly literary and news paper, is chief among the best. Its correspondence and editorials are of that originality of style so peculiar to this coast.—[Oregon Sentinel.

THE GOLDEN ERA is the best literary paper published on this coast. It abounds in stories both real and fictitious, which are worth a careful perusal by every one.—[Santa Cruz Sentinel.

THE GOLDEN ERA is as good a literary paper as can be procured on the continent.—[Red Bluff Independent.

THE GOLDEN ERA has entered upon its fourteenth volume. It is by far the best literary and family paper ever published on this coast.—[Sonoma Democrat.

THE GOLDEN ERA is a most ably conducted literary journal, in every way worthy of its large circulation, and characterized by a flow of wit and freshness of satire in dealing with the prominent follies of the age that is truly refreshing.—[Deseret News, Salt Lake City.

THE GOLDEN ERA is a fine family and literary paper, as the broad Union anywhere can boast of.—[Denver Rocky Mountain News.

THE GOLDEN ERA is the best family journal in the United States.—[Salt Lake City Telegraph.

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THE GOLDEN ERA, instead of economizing during these dull times and presenting a paper to match the times, is as brilliant as ever. It has a talented corps of literateurs, and keeps fully up to the mark.—[S. F. Dramatic Chron.

THE GOLDEN ERA is now in its fourteenth year of publication, and is established on a firm basis. It has a larger number of regular contributors, and gives a greater variety of reading matter than any other paper of the kind published in San Francisco.—[Quincy Union.

THE GOLDEN ERA has commenced its fourteenth year with a steady improvement in literary and typographical appearance.—[Yreka Journal.

THE GOLDEN ERA began in the infancy of the State, and has grown with it, until there is now hardly a post office in the State, or on this coast, where it is not taken. It employs the best writers in the Atlantic States, in Europe, and in California.—[Colusa Sun.

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PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the Mining and Scientific Press can be accommodated by calling upon our Agent, Mr. Tunnis Hamilton, at the Assembly Building, 105 South Tenth street, Philadelphia, Pa., where samp copies of our publications can always be found.

Traveling Agent.

Mr. Robert Lattimore is now on a canvassing tour for the Press through Butte, Colusi, Tehama, Shasta, and Siskiyou counties, and we recommend him to the favorable consideration of our friends.

Postage.—The postage on the Mining and Scientific Press to any portion of the United States is twenty-six cents per annum, payable quarterly, in advance, at the Post Office delivering the paper. Postage free in the city and county. Foreign postage two cents per copy, prepaid. One single copy to any address, two cents; or two copies for two cents.

Its correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of Mining Press, San Francisco. [Nye County News.

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Eagle Quartz Mining Company, Amador County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary, at the Office of the Company, No. 10 Exchange Building, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on the 25th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Building, San Francisco, California. marl0

Honest Miner Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of March, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 16th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front Street, San Francisco. marl0

Mosquito Quartz Mining Company, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 3d day of March, 1866, an assessment of five dollars ($5) per share ($1 per foot) was levied upon the capital stock of said Company, payable on Monday, March 5th, 1866, in United States gold and silver coin, to E. D. Waters, Jr., Treasurer, at the office of the Company, 536 Clay street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 23d day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

O. PARDOW, Secretary.

Office, 536 Clay street, San Francisco. marl0

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, or to the Superintendent, at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 25th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretary.

Office, corner Broadway and Sansome streets, San Francisco. marl0

Old Colony Gold and Silver Mining Company. Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 8th day of March, 1866, an assessment of four (4) dollars per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, No. 523 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. O. HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco, second floor. marl0

Southern Light Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

Notice.—There are delinquent upon the following described stock, on account of assessment (No. 8) of twelve dollars and fifty cents ($12.50) per share, levied February 6th, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
United R R S M Co	117	150	$1,875 00
Light, C H	9	6¼	78 13
Hanchett, H N	23	5	62 50
Watkins, Geo E	186	20	250 00

And in accordance with law, and an order of the Board of Trustees, made on the 6th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, No. 228 Front street, San Francisco, Cal., by Jones & Bendixen, auctioneers, on Monday, the 26th day of March, 1866, at 2 o'clock P. M., to pay the delinquent assessment, together with costs of advertising and expenses of the sale.

E. J. BRINKHOUSE, Secretary.

Office, No. 228 Front street, San Francisco, Cal. m10

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Comet Petroleum Company, Mattole District, Humboldt County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of January, 1866, an assessment (No. 21) of thirty (30) cents per share was levied upon the capital stock of said Company, payable on the 23d day of January, 1866, in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 36 Exchange Building, Montgomery street, in the city of San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

L. CROSBY, Secretary.

Office, 36 Exchange Building, Montgomery street, San Francisco, California. mar3

Evening Star Gold and Silver Mining Company, Humboldt County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21th day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. DUPERU, Secretary.

Office, Pier 22 Stewart street, San Francisco, Cal. mar3

Evoca Consolidated Copper Mining Company.—Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 31st day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	Number of Certificate.	Number of Shares.	Amount.
I Munson	71	20	$ 5 00
I Munson	70	12	$ 3 00
Ira Munson	74	20	$ 5 00
W C Budd	161	50	$12 50
W H Bell	32	5	$ 1 25
W H Bell	33	5	$ 1 25
W H Bell	34	5	$ 1 25
W H Bell	35	5	$ 1 25
W H Bell	36	5	$ 1 25
W H Bell	37	5	$ 1 25
W H Bell	38	5	$ 1 25
W H Bell	39	5	$ 1 25
W H Bell	50	5	$ 1 25
W H Bell	51	5	$ 1 25
W H Bell	52	12	$ 3 00
C A Crano	64	12	$ 3 00
P C Dart	121	12	$ 3 00
Charles D Carter	138	10	$ 2 50
Charles D Carter	140	10	$ 2 50
Charles D Carter	141	10	$ 2 50
W F Williamson	14	112	$28 00
W F Williamson	15	112	$28 00
Geo F Parker	104	112	$28 00
Charles E Abbot	210	207	$51 75
Charles E Abbot	217	12	$ 3 00
G S Ashmead	173	50	$12 50
G S Ashmead	238	50	$12 50
Wm Hamill	177	50	$12 50
George Treat	196	50	$12 50
J J Robbins	209	152	$38 00
J H Stewart	not issued	40	$10 00
F Collier	21	112	$28 00

And in accordance with law, and an order of the Board of Trustees, made on the 31st day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Monday, the 19th day of March, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHARLES E. ABBOT, Secretary.

Office, 537 Washington street, Room 3, San Francisco, California. mar3

By Express.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

Money by Mail.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid.

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal. Assessment No. 10.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 20th day of February, 1866, an assessment of one dollar and fifty cents ($1.50) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on Saturday, the 24th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 10th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco.

Notice.—By an order of the Board of Trustees, made in the above Company, all the Certificates of Shares outstanding of the old stock are annulled, and have been replaced by issues of Certificates of the new stock, and parties are cautioned against purchasing any of the old Certificates, as they are all cancelled on the books of the Company, and all transfer of the same stopped.

feb24 W. D. ROOT,

Hancock Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of March, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. ma3

Julia Gold and Silver Mining Company, Virginia, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 1st day of March, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 16th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. mar3

Jewett Gold and Silver Mining Company. Location of Works: Gold Hill District, Storey County, Nevada.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 29th day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
George E Willett	3	20	$ 20 00
A M Comstock	10	80	80 00
George E Willett	31	20	20 00
Joseph Naphtaly	74	25	25 00
Joseph Naphtaly	75	25	25 00
Joseph Naphtaly	70	50	50 00
Joseph Naphtaly	77	100	100 00
James G Cooper	84	5	5 00
S R Harris	86	20	20 00
S R Harris	89	20	20 00
David Spence	94	2	2 00
Pinney Bartlett	112	12	12 00
Thomas Thwaites	117	8	8 00
S H Harmon	118	26	26 00
E M Van Reed	127	20	20 00
Gerard Debney	129	18	18 00
Jacob Hardy	139	20	20 00
James G Cooper	143	19	19 00
G M Burnham	145	10	10 00
James Wright	152	40	40 00
James Wright	153	40	40 00
James Wright	154	20	20 00
George E Cowell	107	100	100 00
George E Cowell	168	100	100 00
George E Cowell	169	100	100 00

And in accordance with law, and an order of the Board of Trustees, made on the 29th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, on the 20th day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

G. M. BURNHAM, Secretary pro tem.

Office, 436 Jackson street, San Francisco. mar3

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of February, 1866, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

A. B. WINEGAR, Secretary.

Office, 306 and 310 Front Street, San Francisco. feb17

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 1st day of February, 1866, the several amounts set opposite the names of the respective shareholders as follows:

Names.	No. Certificate.	No. Shares.	Amount.
A F W Thompson	119	20	$10 00
W J Leland	56	25	12 50

And in accordance with law and an order of the Board of Trustees, made on the 1st day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the Company, on the 19th day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. mar3

Leland Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 1st day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Isaac Brunn	71	15	$ 7 50
A F W Thompson	120	20	10 00
W J Le and	63	25	12 50
Emma Kinman	114	10	5 00

And in accordance with law and an order of the Board of Trustees, made on the 1st day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 19th day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. mar3

Providence Gold and Silver Mining Company, Nevada District, Nevada County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of February, 1866, an assessment of one ($1) dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 31st day of March, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco. feb10

United States Mining Company,---Location: Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of February, 1866, an assessment of fifty (50) cents per share was levied on each and every share of the capital stock of said company, payable immediately, in gold or silver coin of the United States, to the Secretary, at his office, or to F. A. Marston, Virginia, Nevada.

Any stock upon which said assessment shall remain unpaid on Saturday, the 17th day of March, 1866, will be advertised as delinquent, and unless paid, will be sold on Saturday, the 31st day of March, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. feb10

Walipi Gold, and Silver Mining Company, Moss Lode, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that the Annual Meeting of the stockholders of the Walipi Gold and Silver Mining Company, will be held at the office of the Company, No. 620 Washington Street, San Francisco, ON WEDNESDAY, March 21, 1866, at 12 o'clock M. Trustees will be elected, and other important business transacted.

feb24-4w H. B. CONGDON, Secretary.

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 20th day of February, 1866, an assessment of two dollars ($2) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 210 Pine street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up stairs, San Francisco. mar 3

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Keep a list of your friends; and let God be the first in the list however long it may be.

Keep a list of the gifts you get; and let Christ who is the unspeakable gift he the first.

Keep a list of your mercies, and let pardon and life stand at the head.

Keep a list of your joys; and let the joy unspeakable and full of glory he first.

Keep a list of your hopes; and let the hope of glory he foremost.

Keep a list of your sorrows; and let sorrow for sin he foremost.

Keep a list of your enemies; and however many there may he, put down the "old man," and the "old serpent" first.

Keep a list of your sins; and let the sin of unbelief he set down as the first and worst of all.

SINGING.—Singing is a great "institution.' It oils the wheels of care, and supplies the place of sunshine. A man who sings has a good heart. Such a man not only works more willingly, hut he works more constantly. A singing cohbler will earn as much again money as a cordwainer who gives away to low spirits and indigestion. Avaracious men never sing. The man who attacks singing throws a stone at the head of hilarity, and would if he could, rob June of its roses and August of its meadow larks. Singing promotes health, strengthens the voice, the organs of the throat and lungs, and prevents or cures consumption.

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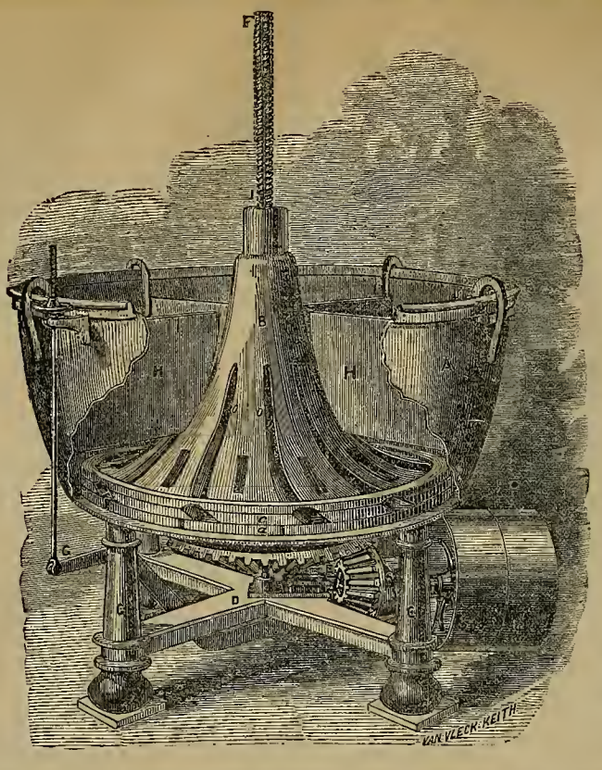

THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing eveuness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

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WHEELER & RANDALL.

SAN FRANCISCO, June 13, 1865.

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1v12

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Arrogance can neither supply the want of talents, nor adorn them when possessed.

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Mining and Scientific Press

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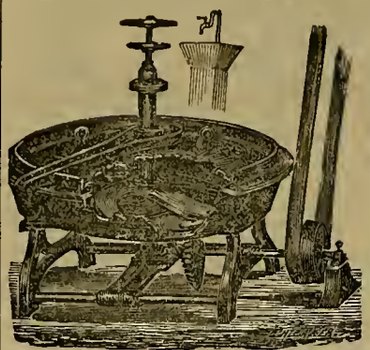
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine Scientific Knowledge with Practical Experience, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Grniffs Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8–6df

BLAKE'S

QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.

4v10

Hepburn & Peterson's

AMALGAMATOR.

The subscribers would call the attention of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the miner a more expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. [Illustrated in the Mining and Scientific Press, April 9th, 864.]

nov8 3m* HEPBURN & PETERSON.

McCOMB'S

CUMULATIVE POWER PRESS

AND

ARROW TIE.

E. C McCOMB, Agent.

No. 1 Government House, cor. Sansome and Washington sts.

23v10 3m

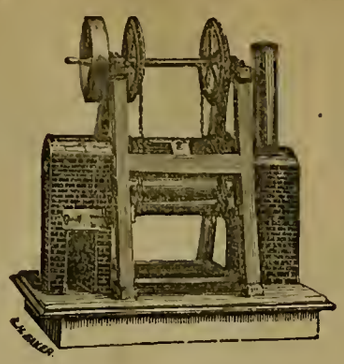
The Mechanics' Institute

AWARDED A

PREMIUM SILVER MEDAL

TO BRUCKNER'S

MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,

12v11 416 Market street, San Francisco.

HUNT'S

IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person; and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN

HORSE POWER

For Sawing Wood.

ALSO, THE

Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.

☞ For further Particulars see small circulars. ☜

E. O. HUNT,

No. 23 Second Street, and 108 & 112 Jessie Street, San Francisco. 26-3m

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

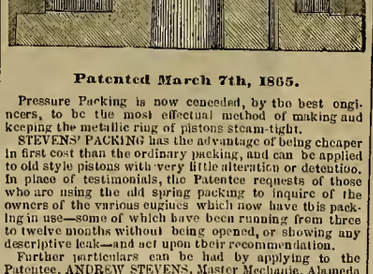
All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by **TREADWELL & CO.,**

3v12-3m Corner of Front and Market streets.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df **ANDREW STEVENS.**

FOR SALE!

A STEAM ENGINE!

10-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 Firststreet, or to

HEYNEMANN & CO.,

26v11tf 311 and 313 California street.

VARNEY'S

PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the **PACIFIC FOUNDRY,**

1v1 San Francisco.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

HUNT'S PATENT

Circular Sweep Horse-Powers,

For running Churns, Washing Machines, Grindstones, pumping water, sawing wood, and other light machinery. Price, $100, at the Factory.

HUNT'S PATENT SELF-REGULATING TREAD HORSE-POWER is superior to any machine of the kind in the market. Price, with Governor, all complete to set to work, at the Factory, $300. Manufactured by

E. O. HUNT,

7v10 28 Second street, San Francisco.

Important to Miners.

NEW PATENT ROASTING PROCESS.

I am now prepared to offer to the Mining community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day,

MORE COMPLETELY AND CHEAPER

Than any other Process. All the Sulphur is saved, by being converted into Bisulphide of Carbon, which is a valuable product, and will pay nearly all expenses.

For particulars, apply to

J. MOSHEIMER,

26v11-3m 423 Washington street.

QUARTZ OPERATOR'S

HAND BOOK

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,

Authors and Publishers.

Bound in Cloth—144 Pages, Duodecimo.

The Quartz Operator's Hand Book is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner.

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable Quartz Miner's Hand Book.

The Table of Contents of this book will be found on page 415 of the Mining and Scientific Press of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11

Removal.

The Office of the Mining and Scientific Press has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive Job Printing Office.

San Francisco, April 10th, 1865.

Subscribe for it.—The large, illustrated sixty-four column weekly newspaper—the San Francisco Mining and Scientific Press—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

RAILROAD TO HUMBOLDT CITY.—A bill has passed the United States Senate, granting aid to a railroad from the Bay of San Francisco to the oil and agricultural regions of Humboldt county. Such a road is greatly needed, must soon be built, and will eventually become most excellent property.

A CHOICE ADVERTISING MEDIUM.

This week we issne an edition of 5,000 copies of tbe YOUTHS' COMPANION, every copy of which will be thoroughly scanned by more than one pnir of sharp little eyes, and the contents of every page, from first to last, will be re-uttered by many active, lively tongues in tbe presence of over 4,000 of tbe best families in tbis city and State.

Although we are receiving many ndditional snbscribers to our list in response to the new enterprise in which we have engnged, we cannot expect, with tbe present bigh cost of printing paper, and our very low terms, to receive sufficient money from subscriptions alone to furnish as good a journal ns we hnve determined to publish for our patrons; so we have widened tbe columns of the paper nnd adopted smallcr type, wbich admits more letters in each line, nnd mnny more lines in encb column of the paper, tbat we may bave room for a few more select advertisements in the COMPANION *without decreasing in the least* any class of reading matter.

Our little journal circulates in more families than nny other weekly published in San Francisco. No advertisements of tbe least objectionable character will be received, and as but n limited space will be devoted to this dcpartment, our young friends can safely inform tbeir storekeepers, and other business acquaintances of these important facts for tbe benefit of the paper and all concerned.

Remember, only a few columns of our regnlnr issue will be devoted to advertising, and the more profitable that clnss of patronage is made the greater will be the onthy upon our reading columns.

DEWEY & Co., Publishers.

February 23d, 1866.

BY MAIL.—The MINING AND SCIENTIFIC PRESS will he sent by mail to any part of the civilized world. In case of removal, subscribers bave only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

SNND US WOAD.—If any subscriber to this journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

PORTLAND BOILER WORKS.

MOYNIHAN & AITKEN,

Boiler Makers and Sheet Iron Workers,

N. B.—All kinds of Boiler and Sheet Iron Work executed at the shortest notice, and on the most reasonable terms.

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10-v12

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NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Dinsmore's Machine and Iron Works,

SAN FRANCISCO.

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

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PETROLEUM STOVES.

A MOST USEFUL INVENTION FOR ALL manner of COOKING and for IRONING, without any litter, as ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Cooking by them is divested of its disagreeableness, and becomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,

Proprietors for California.

San Francisco, March 3d, 1866. 10-v12

RUGGLES' PRINTING PRESS

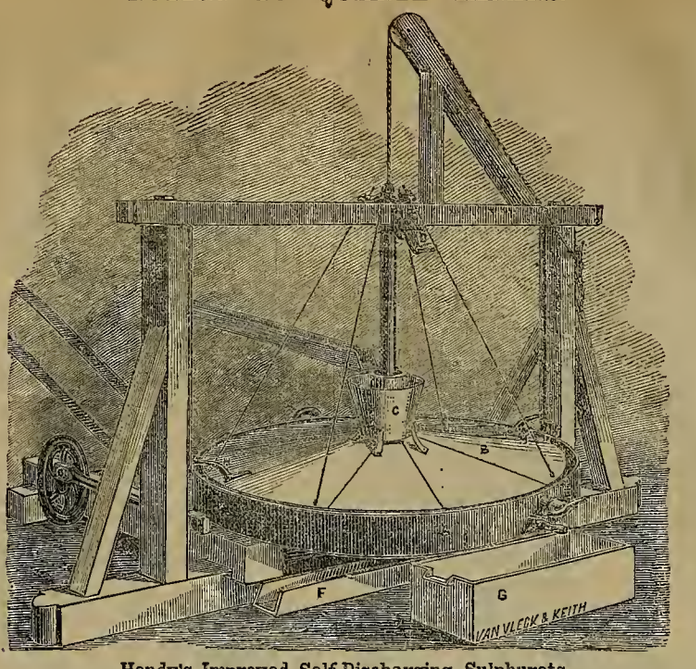
For Sale or Exchange.

The Proprietors of the MINING AND SCIENTIFIC PRESS have on hand a Half-Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,

Office, 505 Clay street.

NOTICE TO QUARTZ MINERS.



Hendy's Improved Self-Discharging Sulphurets

PRATER CONCENTRATOR

Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " " "
U. S. REESE RIVER MILL, Austin, "
CARROL & ASPINWALL MILL, Reese River, Nevada.
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., "
BLUE LEDGE MILL, near Spanish Flat, El Dorado Co.
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:

One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.

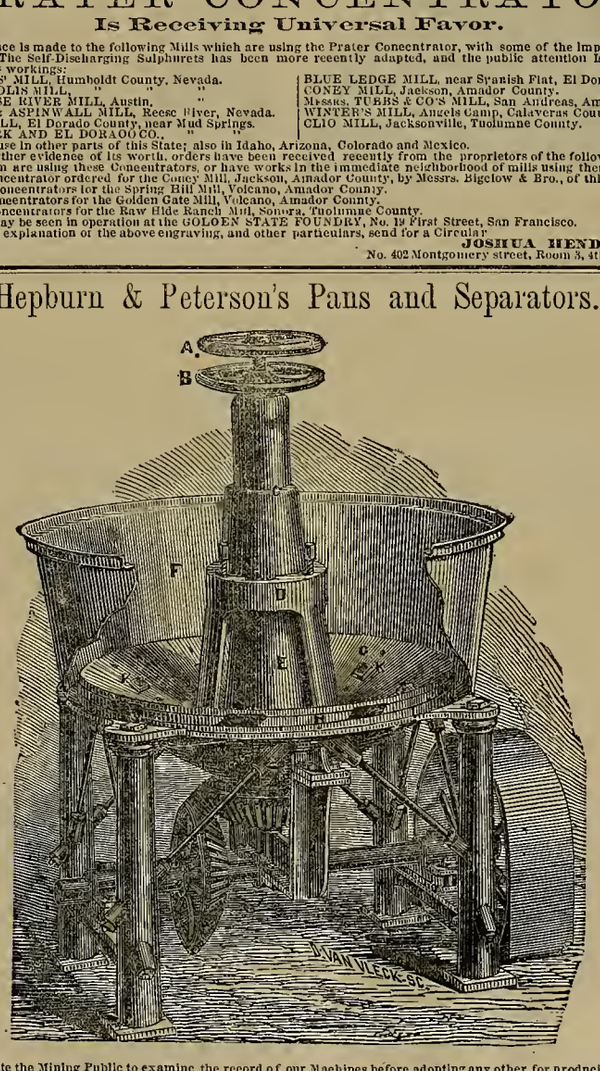
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.

☞ For explanation of the above engraving, and other particulars, send for a Circular.

JOSHUA HENDY,

8v12tf No. 402 Montgomery street, Room 3, 4th floor.

Hepburn & Peterson's Pans and Separators.



WE invite the Mining Public to examine the record of our Machines before adopting any other for producing similar results. They have been in general use for the past three years, during which time they have been repeatedly tried in comparison with every other machine of note, and of a similar nature, and have invariably been adopted in preference; which facts we offer as the most suitable recommendation, and which is attested by the following list of

Principal Mills Using them:

Names of Companies.	*Location of Mill.*		*Names of Companies.*	*Location of Mill.*	
GOULD & CURRY	Virginia City,	Nevada.	TEAKLE, ROGERS & CO		Nevada.
SILVER STATE REDUCT'N WKS.	Empire City,	"	MELVILLE KELSEY	Silver City,	"
OPHIR	Washoe City,	"	HUDGIN & SORMAN	Silver City,	"
EDWARD McLEAN	Silver City,	"	YELLOW JACKET	Empire City,	"
SANTIAGO	Zephyr Flat,	"	BELOIN & GREGORY	Esmeralda,	"
RAPHAEL & HUSTED	Gold Hill,	"	HECKENOORN	Calaveras Co.,	Cal.
FRENCH & BESLER	Dayton,	"	CARSON CREEK	Calaveras Co.,	"
HERMAN, KETSCHER & CO.	Carson River,	"	CROWN LEAD	Mariposa Co.,	"
A. SUTRO	Dayton,	"	BIG BLUE LEAD	Tulare Co.,	"
DAVIS & BARRON	Carson City,	"	E. T. STEEN	Amador Co.,	"
PHENIX	Silver City,	"	EAGLE	Amador Co.,	"
CHAS. S. COUVER	Silver City,	"	10A MILL	Owens River,	"
PIONEER	Silver City,	"	ALACRAN	Sonora,	Mexico.
L. A. BOOTHE & CO	Virginia City,	"	SANTA CLARA	Sonora,	"
A. DEFANO	Washoe,	"	ROSARIO & CARMAN	Sonora,	"
SUCCOR MILL & MINING CO	Gold Hill,	"	LIBERTAD	Sonora,	"
RODGERS & GRISSAM	Silver City	"	DON JUAN ROBINSON	Sonora,	"
ANDERSON & SEAL	Washoe,	"			

Manufactured at the Principal Foundries in San Francisco.

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At the VULCAN IRON WORKS, Nos 137 and 139 First Street, San Francisco.

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Manufacturer of Brass, Zinc, and Anti-Friction or

Babbet Metal Castings;

CHURCH AND STEAMBOAT

BELLS,

TAVERN AND HAND BELLS AND GONGS,

FIRE ENGINES, FORCE AND LIFT PUMPS,

Steam, Liquor, Soda Oil, Water and Flange Cocks, and Valves of all descriptions, made and repaired. Hose and all other Joints, Speiter, Solder, and Copper Rivets, &c. Gauge Cocks, Cylinder Cocks, Oil Globes, Steam Whistles,

HYDRAULIC PIPES AND NOZZELS

For Mining purposes, Iron Steam Pipe furnished with Fittings, &c. Coupling Joints of all *sizes*. Particular attention paid to Distillery Work. Manufacturer of "Garratt's Patent Improved Journal Metal."

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Awarded to

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Pacific Mail Steamship Co's

THROUGH LINE TO NEW YORK,

Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M., on the **10th, 19th,** and **30th** of every month (except when those dates fall on Sunday, and then on Saturday preceding,) for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departure of the 19th connects with the French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 1uth connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Sumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

STEAMERS FOR MARCH.

10th—SACRAMENTO.....Capt. J. M. Cavarly, Connecting with COSTA RICA, Capt. Maury.

19th—GOLDEN AGE.....Capt. E. S. Farnsworth. Connecting with NEW YORK, Capt. Horner.

30th—CONSTITUTION.....Capt. F. R. Baby, Connecting with HENRY CHAUNCEY, Capt. Gray.

Cabin passengers berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.

OLIVER ELDRIDGE, Agent.

MINING LAWS AND FORMS.

Third Edition revised and enlarged.

Compiled by H. B. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete: Digest of Decisions of the Supreme Court; Forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

Published by H. H. BANCROFT & CO.

Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS, And Patent Solicitors.

SAN FRANCISCO, SATURDAY, MARCH 17, 1866.

VOLUME XII. Number 11.

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New Mining and Other Advertisements, etc.

Rivers of Oil.—Edward Everett, in his last public speech, in referring to the prolific resources of the United States, remarked that "the very clods of earth are pouring out rivers of oil." This remark, at the time, was considered nothing more than a very appropriate rhetorical flourish; but late accounts from the oil regions of Western Pennsylvania appear to attach an almost literal signification to it. A New York paper, of a late date, says:—

"Last week it was discovered, near Pithole City, that the oil at various places was oozing from the surface of the ground, wells of water seeming suddenly to be changed to petroleum fountains, and men, women and children rushed with every available vessel to scoop up the fluid from holes only a few feet deep."

Whether the oil which thus appeared was the result of surface drainage from the wells, or some new development of the earth's crust, or whether it was a new and accidental discovery, we are not informed. Neither are we informed as to whether this phenomenon has proved or is likely to prove continuous; but, at all events, it is eminently illustrative of the new fountains of wealth which are constantly being opened, in every direction, by the scientific researches of our learned men, or the busy hands of our enterprising pioneers. With the inexhaustible treasures of our gold, silver, copper, iron, coal, etc., the wonderful development of our earth oils, and the teeming products of our fruit and agricultural lands, all added to the mechanical skill and enterprise of our mechanics and manufacturers, who can tell to what hights of wealth, power, and greatness the American people may not attain?

A Wood Splitting Machine.—The San Francisco Fuel Company are now employing a wood splitting machine at their works on Long Bridge, in this city. The machine is the invention of Capt. Taylor, a working member of the company. It consists of a heavy iron bed-plate, from the centre of which rise four iron wedges, in the form of a cross, thus: + The blocks of wood, previously sawed into short lengths by a circular saw, are successively placed on the top of this wedge, when a heavy weight, like a pile-driver hammer, is slowly brought down on the top of the block, forcing it down over the wedge, until the stick is divided into four pieces. The operation is repeated with each separate block, until the wood is reduced to the requisite size. The weight is easily governed in its motions by a crank, so as to be driven back on the instant the wood gives way under the pressure. The machine does the work much cheaper than it can possibly be done by hand; even the toughest and most knotty sticks yielding easily to the heavy pressure that can be brought to bear upon it.

HOME INFLUENCES.

How strong, how sweet, how sacred are the ties that bind together loving sisters and brothers. How balmy the influence of that affection, which dwells around the fireside of a family of loving children, and children beloved. It is like a mild atmosphere in a bright spring morning; it enters into a child's soul like the sunshine into a rosebud, slowly but surely expanding it into loving beauty and vigor. Distrust and doubt are strangers in such a family; self-interest and jealousy mar not the happiness of such a household. The heartless forms of *fashion* give place to manners sweet, gentle and courteous, presenting a union of hearts, undivided in study, in spirit and in interest. Parental kindness and filial affection flourish there, and bloom in all the freshness of eternal spring!

A man who has grown up among kind and affectionate sisters, and loving parents, carries their influence through all his after life, even to old age. He ever gives evidence of a rich development of those tender feelings of the human heart, which can spring from no other source. It matters not if he goes out upon a heartless or a frowning world, or if now and then his heart grows cold from chilling contact therewith; he will at times warm and thrill with the mere memory of the happy scenes of his earlier years, as an occasional incident awakens in his mind the memory of the soft voices and kindly influence of the loving circle in which he received his earliest and holiest impressions.

If he is sorely tempted, such recollections will serve to turn him from any purpose of wrong, which an improper influence or a false philosophy may seek to urge upon him under the guise of expediency. The memory of a sister's kindness, the gentle influence of a mother's teaching, serve in all after time, as a balm to every ill, and a monitor against every meditated evil—they are like beacon lights, ever beaming, ever shining, to guide us along the pathway of life!

Perpetual Motion.—Mr. John M. Peterson, of this city, has invented a machine which he claims will move without any extraneous assistance. It is composed of weights and balances, ingeniously conected with endless chains, following over geared cog-wheels and pulleys. The invention is a difficult one to describe without a diagram. Although no convert to the theory of perpetual motion, on a practical scale, we nevertheless give Mr. Peterson the credit of a very ingenious contrivance in that direction.

A New Water Engine.—A very neat and ingenious piece of mechanism, closely resembling a steam engine, but designed to be driven by water, under a high pressure, may be seen at work in the window of C. J. Hawley & Co's store, on the corner of Stephenson and Second streets, in this city. It was manufactured at the Union Foundry, and is the invention of a gentleman engaged as an architect in this city. It is an ingenious and useful piece of machinery. Application for patent has been made through the Mining and Scientific Press Patent Agency, by Mr. Marquis, inventor of its peculiar improvements.

Petroleum Stoves—We would call attention to Messrs. Bullard & Battles' advertisement of the "Petroleum Stoves," which will be found in another column. These stoves have now been tested in this community, and we understand that they have satisfactorily established their claim to consideration as a convenient, economical, and labor-saving invention for all manner of cooking, and for ironing. By them, in baking, whether of bread, pastry, or meats, there is small chance, *no* need of, failure—as the heat is in perfect control of the operator, and at all times directed to the very point where needed. In ironing, the inconvenience of a surplus heat, and the waste of time in feeding the fire and heating the irons, are avoided; and an ironer can do about twice as much work in a given time as by the ordinary method of heating the irons. In broiling, they are far superior to other stoves. The meat being exposed in its entire surface to a strong and equal heat from the instant it is put on, is speedily cooked through without burning the outside, or the loss of the juice, which gives delicacy of flavor and liveliness of taste to a steak. No ashes, smoke, or soot result from the use of these stoves. The fire is easily lighted, and when once going, needs no care except that to regulate it to the degree of heat necessary to the work in hand. As no pipe is required, the stoves can be used in any room or part of a room, or out-doors, if sheltered from the wind. To see the stoves in operation, as one can any day, at 316 Montgomery street, is enough to satisfy the most skeptical, even, of their convenience and excellent adaptation to the circumstances of thousands in this city.

"Usm."—This new word was recently coined on our beautiful bay, under the following circumstances: A young gent and miss on the Oakland ferryboat were engaged in affectionate conversation, when their attention was attracted by a large steamship lying in the stream. "What is the name of that noble ship?" inquired the lady. "The 'Usm,'" responded the knowing youth, with significant promptness. "The 'Usm,'" why, I never heard such a name." "Yes," he continued, "the 'Usm;' can't you read those large letters on the side, U. S. M.—'Usm,'" (United States Mail). Young miss saw the drift, modestly turned aside into gentle convulsions, and was soon after engaged in walking the young gentleman about the deck for the benefit of his health, and a more secluded portion of the boat.

A new and curious application of electricity has recently been made by an ingenious Frenchman, who arranges a long wire, connected with a galvanic battery, sustained upon glass supports, along any place frequented by rats. Upon this wire are strung, at intervals, pieces of fresh meat, which the rats are prompt to nibble at, and which they no sooner get hold of than they bring down an electrick shock, sufficiently powerful to produce instant death to the *rodents*.

The presence of silver in the copper sheathing of ships, after long continued voyages, has been proved, even to the extent of seven ounces to the ton.

Explanation.—"Our Regular Corrsspondent," whose letter we publish to-day, in his notice of the "Mina Rica de Las Flores Mining Co.," asks for an explanation of a phenomenon, noticed in that mine, where both walls of the mine are in granite for 100 feet beneath the surface; but below which point the hanging wall is of talcose slate, while the foot-wall continues granite all the way down. The phenomenon is easily explained by supposing—which is very probable—that the slate is metamorphic and irruptive, and that it was forced upwards in the form of a dyke; but not quite to the surface. This action would naturally have formed a fissure, probably of contraction, which might have reached the surface, rendering the quartz which was subsequently infiltrated or irrupted *a true fissure vein*, and a most certain evidence of a continuous and valuable one. Or the granite itself may be irruptive, having been forced up through the slate quite to the surface, and covering it deeper at one point than at another. Either case is a supposable one; and the probability of the one or the other is to be determined only by personal and scientific examination.

Improvement in the Chronometer Escapement.—Mr. Wm. H. Lamb, an ingenious watchmaker of this city, has recently perfected an important improvement in the chronometer escapement, for which he has taken the preliminary steps to secure a patent. The object of this improvement is to make a chronometer escapement more fully applicable to an ordinary pocket time-piece than anything heretofore devised. It is well known that the chronometer now employed is not safe, from its liability to stop, or otherwise get out of order, from sudden jars, such as those encountered in jumping, riding on horseback, etc. The same objection also obtains with regard to the duplex escapement. Mr. Lamb's improvement consists in the attachment of a double, or right and left, impulse to the balance; making the watch, so constructed, as valuable and safe a time-piece as the lever, and at the same time preserving all the beauty and freeness of movement to the balance which the chronometer now in use possesses.

Mechanics' Institute.—At a meeting of the Board of Directors of the Mechanics' Institute, held last evening, Wm. Bausman, Esq., was elected Librarian, and J. B. Pierce, Assistant Librarian. The Institute has purchased the lot on Post Street, and it is expected that a new building will soon be commenced.

To Correspondents.—Answer to "A Miner," of Stockton, next week; "Mining at Mount Diablo" will appear. The queries of our Mount Diablo correspondent will be answered at our earliest convenience.

Shasta Courier.—This sterling mountain journal has entered upon its fifteenth volume. We wish it continued success and prosperity. We find its columns of great value for local intelligence.

Mining Dividend.—The Crown Point Gold and Silver Mining Company have declared a dividend of $50 per foot.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

BY W. A. GOODYEAR.

[CONTINUED FROM PAGE 146.]

It is easy, however, to show analytically that in the branch of the secondary curve which lies upon the concave side of the original tractory, there are always values of y' that are greater than a, that is, that the *hook, above* the line $y = a$, is always formed, whatever be the value of b, (provided b he not absolutely 0, in which case there is no secondary curve,) and, therefore, that this curve is never a tractory, since in the latter no value of y can he greater than a.

To show this, let us find the point where the normal to the tractory, at the point x, y, crosses the line $y = a$. Represent the coordinates of this point by x'', y''. Now, since the point x'', y'', is in the normal to the tractory at the point x, y, its coördinates must satisfy equation (51). Therefore, we have

(56) $y'' - y = -\frac{dx}{dy}(x'' - x)$. Since the point x'', y'', is also in the line $y = a$, its coördinates must satisfy this equation also. Hence,

(57) $y'' = a$. If, now, we substitute the kuown value of $\frac{dx}{dy}$ in (56), and then obtain from (56) and (57) the value of x'' in terms of x and y, we have

(58) $x'' = x \mp y\sqrt{\frac{a-y}{a+y}}$. Now, since in (58) x and y still represent the coördinates of points in the tractory, we know that hy taking y as near a as we please, we can make x as near 0 as we please. Therefore, (58) shows that hy taking y as near a as we please, we can make x'' as near 0 as we please. In other words, that by taking points in the tractory as near the point $y = a$, $x = 0$, as we please, we can make the normal at the poiut x, y, *cross* the line $y = a$, *as near the point* $y = a$, $x = 0$, *as we please.* Therefore, however small b may be (provided it he not absolutely 0), there are still points in the tractory so near the point $y = a$, $x = 0$, that their normals cross the line $y = a$, at a less distance than ba from the point $y = a$, $x = 0$. Therc are, therefore, always points in the secondary curve whose ahscissas are less than ba, and whose ordinates are greater than a, and which, therefore, lie ahove the line $y = a$. The *hook* referred to is, therefore, always formed, however small b may be. That the hook is always formed when b is large, is sufficiently evident.

The secondary curve, then, is never a tractory; and this heing the case, the distances in a direction parallel with the axis of x, from the original tractory to the secondary curve, are *not* constant.

The demonstration given upon page 103 of the Hand Book is faulty, inasmuch as in the figure there used, the lines o c and o' c', which are made to represent the wear perpendicular to the tangent, and are proportional to tbe ordinate, are not drawn perpendicular to the tangent *at the point of contact*, where this wear would actually take place, if it could take place at all, hut at a distance from it, so that the figure does not answer to the conditions of the prohlem there handled.

I may remark here, that although we cannot conveniently ohtain the equation itself of the secondary curve ahove discussed, we can yet, without difficulty, ohtain the differential coefficient of y' with respect to x' in terms of y, and hy means of this, demonstrate one or two other points in relation to the curve. The value of this differential coefficient is the following:

(59) $$\frac{dy'}{dx'} = \frac{y}{\sqrt{a^2 - y^2}} \times \frac{2by^2 - a^2 b + a\sqrt{a^2 - y^2}}{2by^2 + a\sqrt{a^2 - y^2}}.$$

From (59) we see that if we make $y = a$, then $\frac{dy'}{dx'} = \infty$. But from the conditions under which the curve is formed, we know that when $y = a$, y' also $= a$, and $x' = ba$. Therefore, at the initial point $y' = a$, $x' = ba$, of the secondary curve, its tangent is perpendicular to the axis of ahscissas, and the curve itself is tangent to the tractory which hegins at the same point.

Again, if we make $\frac{dy'}{dx'} = 0$, we shall ohtain the point or points where the tangent of the secondary curve is parallel to the axis of ahscissas. But the equation $\frac{dy'}{dx'} = 0$ can can he satisfied in two ways, viz., hy making $y = 0$, or hy making

(60) $2by^2 - a^2 b + a\sqrt{a^2 - y^2} = 0$.

Now, we know that when $y = 0$, then y' also $= 0$, and x and x' are hoth infinite. Therefore the axis of ahscissas is also an asymptote to the secondary curve.

Equation (60) gives

(61) $$y = \pm\frac{a}{2b}\sqrt{\frac{1}{2}(4b^2 - 1 \pm \sqrt{8b^2 + 1})}.$$

Therefore, at the point in the secondary curve, corresponding to the point in the tractory, where

$$y = \pm\frac{a}{2b}\sqrt{\frac{1}{2}(4b^2 - 1 \pm \sqrt{8b^2 + 1})},$$

the tangent of the secondary curve is also parallel to the axis of ahscissas. It is very evident that this curve is not a tractory.

Let us now consider some of the conditions of grinding.

If two grinding plates, of tractory conoidal or any other form, rest uniformly the one upon the other without motion, the pressure hetween the two, in direction as well as in amount, is determined solely hy the *weight* of the upper plate, and if the latter he of uniform thickness in a vertical direction, the pressure *in a vertical direction* is uniform, or constant.

If the plates he curved (whether they he of tractory conoidal or any other curvilinear form), the vertical pressure at any point may he resolved into two components, one of which is parallel and the other perpendicular to the tangent of the meridian curve at the same point.

The component parallel to the tangent is taken up hy the hody of the plates themselves, and hecomes null in effect. The other component remains; and it is easy to show that in tractory conoidal plates, if the upper plate he of uniform vertical thickness, this last component varies as y, and, in fact, is equal at any point to $R\frac{y}{a}$, if R denote the constant *vertical* pressure. These conditions hold so long as the plates remain motionless. If the upper plate hegins to revolve, the conditions of pressure are then *changed*, and in a manner depending upon the form and relative hardness of the different portions of the plates.

[To be Continued.]

An old man and a little child stand upon the threshold of time, the two looking different ways.

[Written for the Mining and Scientific Press.]

From Our Regular Correspondent.

Editors Press: After a trip in the northeastern part of the county, I find myself enjoying the kindly hospitality of Mr. Bever of the Rich Gulch Hotel, and having spent most of this time in a highly interesting, but rather unappreciated section of country, I am led to believe that some account of my "wanderings and short comiugs" therein may be of interest to the public.

Leaving Mokelumne Hill on the afternoon of the 16th instant, I reached the residence of Colonel Rust, three miles above which place, about sunset, and accepted his kind invitation to spend the night. The Colonel is one of the pioneer newspaper men of the coast, having been at one time editor of the Marysville *Express*, and having heen at different times connected with many enterprises of the kind in our mountain towns. He is fond of relating his experiences in those early days of newspaper work, and I was equally fond of listening; so between us two, the evening passed quite pleasantly away. The next morning I started quite early for West Point, where I arrived about one o'clock, having met on the way many of those whose acquaintance I had made last spring, in all of whom I found friends and helpers. The most of my time was spent in West Point and Sandy Gulch districts, which lie between the north and south forks of the Mokelumne river, and are separated by the middle fork.

WEST POINT DISTRICT

Lies on the north side of the middle fork of the Mokelumne, and is at present the most prosperous and enterprising quartz-mining district in the county. It is well supplied with wood and water, both being abundant and cheap, thus offering every facility for working, at small cost, the rich auriferous ores which the numerous ledges so abundantly yield. The veins of this district are situated in a granite formation, and are quite irregular in width above the water line; at which point they were heretofore supposed to disappear, none having been worked below that line until within a year or two. They are also frequently cut hy dykes or "elvans" of granite, trap or slate, which gave rise to the helief that they were generally of insignificant extent, longitudinally. The explorations on the Mina Rica and Sacoterre, and the Cummings and Hadley veins in this district. and the Belding in Amador county, which is also on the same range and in the same formation, have proved almost heyond doubt that the veins in this district are as permanent, though not so extensive, as any in the State. The width of the veins vary from two to three inches to as many feet, and the yield of the ore is from 20 to $200 per ton; quartz paying less than twenty dollars not being considered rich enough for profitable working. Owing to the belief that the ledges, or "bunches," as they are here called, were not extensive, but few mills have been built for the working of any particular leads; but most of the quartz is crushed at custom mills, whose charges vary from five to seven dollars per ton; the latter price being charged for working in an arastra; that process being quite popular with some classes of the population. The principal custom mills now at work in this district are Henry's of five stamps, on the Middle Fork, one mile south of town; Schmidts, of five woodeu stamps and two arastras, on the same stream, some 400 yards above Hendy's; the Belcher mill, of eight stamps and two arastras, abont a mile above Schmidts, and the Skull Flat mill, at Skull Flat, two miles northeast of town, of eight stamps, all of which were more fully described iu my letter from this place in April last.

Besides these may he mentioned Carlton's mill, situated one and a half miles below West Point on the Middle Fork, consisting of three wooden-stem stamps and two arastras, driven hy water power, with an overshot wheel. This is one of the most substantially huilt mills of the kind that I have ever seen. It is capable of working two and a half tons of ordinary quartz daily, the rock being first broken by the stamps into pieces of the size of filberts, after which it is ground and amalgamated in the arastras. The old Nestor mill, now owned by Mr. Lidstrom, of Masun's brewery, San Francisco, and run by Mr. Fred Morris, formerly in charge of the Mina Rica mine and mill, consists of three stamps and two arastras, driven like the last hy water power; but is in a very dilapidated condition, as is also Bryant's mill of two stamps and one arastra, situated near. The owners of the latter, however, inform me that they intend improving their mill soon. Both these mills are located on a small stream called Bear creek, about a mile east of town. The principal mill of the district, is that of the

MINA RICA DE LAS FLORES MINING COMPANY,

Located at Camp Flores, one and a half miles east of West Point. This mill consists of ten heavy stamps driven by a steam engine of thirty horse power, and is well and substantially huilt. Amalgamation is performed in small pans into which the pulp runs directly from the hatteries. The tailings are again ground, and amalgamated in one of Baux & Guind's amalgamators, by which means the yield of the quartz is increased from twelve to fifteen dollars per ton. The average yield of the rock is from thirty to thirty five dollars; at least this is the estimate of the superintendent. This company own two veins, the Mina Rica and the Lockwood. On the former a shaft has heen sunk to a depth of 130 feet, showing a well defined vein of quartz from fourteen inches to two feet in width, and much of it heavily charged with sulphurets. At a depth of 112 feet, drifts have heen run lengthwise of the vein a distance of eighty feet, disclosing a large vein of rich ore. The course of this vein, like that of all others in this range is nearly north and south, with a very slight dip to the westward. As I have before stated, the surface of this district is all of granite formation, hut on reaching a depth of 100 feet, the hanging wall of this vein is of talcose slate. while the foot-wall remains granite all the way down. This is the only instance of the kind which has come under my observation, and I should like to see some explanation of the case hy geologists. The Lockwood has been explored to a depth of 100 feet, and by drifts along the vein a distance of fifty-nine feet. It is from eighteen inches to three feet thick and yields quartz of a character very similar to the Mina Rica. The rock is hoisted from both of these mines by horse power, the mining being done by Cornishmen, on contract, at fixed prices per foot, for sinking or driftiug.

The richest lode yet discovered in the district, is believed to he

THE CUMMINOS & HADLEY,

Owned by the parties whose name it bears, and who are making a vigorous effort to test its permanence and valuc, and with very fair prospects of success in developing a valuable mine. This vein is crossed hy two dykes of hard slate about ten feet apart, between which the shaft has been sunk to a depth of ninety feet. No attempt has been made to drift through that on the north side, and its thickness is not known, but the ore on the south side of the shaft, has been found to be about three feet wide at the top, and to narrow gradually as it goes down, until at the depth of ninety feet it almost disappears, and the two portions of the vein are almost united. The vein at the hottom is about four feet in width, while its average thickness is fully twenty inches. I visited the mine on Saturday afternoon, the 17th instant, in company with Mr. Robert Briggs of West Point. We were informed that the rock from this vein, worked at Carlton's mill, which is ahout half a mile distant, had averaged from $140 to $150 per ton. A short distance south of this is the Amo lead, owned by Messrs. Carlton and Fischer, which has been opened to a depth of 100 feet. It dips to the west, at an angle of thirty-three degrees, and is about one foot in average width. The quartz differs from most of that in the district in containing no sulphurets. It has yielded about $85 per ton in free gold.

On Monday morning I started to visit the mines in the neighborhood of Skull Flat, and on the way, fell in with Mr. A. M. Harris, of Sandy Gulch, who was visiting Skull Flat on business.

The oldest and most productive mine in this vicinity is

LA SACOTERRE,

Situated about half a mile southwest of the Skull Flat mill, and owned hy the Cassner Bros., who are also owners of that mill. The lead was first discovered in 1855, since which time over $100,000 are said to have been taken out. It has been opened by a shaft to a depth of 120 feet, while on the level of the bottom of this shaft a tunnel has been driven into the hill a distance of 300 feet, eighty feet of which is on the vein. Its usual width is from fifteen inches to two feet, though I was told that at the bottom of the deepest shaft, its width was three feet. The average yield of the rock worked from this vein for the past eleven years is set down at $80 per ton.

On what is supposed to be an extension of this lead, Messrs. Wilson and Keys have struck some very rich rock, some specimens of which were presented to me by Mr. Wilson, which show a large amount of free gold. They found the vein divided into two parts each about five inches wide. They have sunk to a depth of about forty feet, and opened the ledge for a distance of fifty feet north and south. It is believed that the rock taken out will yield at least $100 per ton.

Another very valuable lead is that of Messrs Barnes & Cassner, mentioned in the letter mentioned above, as written last April. The lower tunnel has been completed, and has struck the ledge after running 275 feet, at a depth of 160 feet. Drifts have been run on this level a distance of ninety feet, disclosing a vein from four inches to three feet thick, averaging about twenty inches. No rock had been crushed since my last visit, but that lying at the mouth of the tunnel, was pronounced by the millmen in the party to be very rich. The rock worked last year paid over $100 per ton.

About a thousand feet west of the above is the ledge claimed by Messrs. Hildebrand and Fields, which is from four to twelve inches in thickness, and has paid $45 to $70 per ton. It is opened to a depth of 120 feet below the surface by a tunnel 150 feet in length along the lead, and a shaft has been sunk, thirty feet below the tunnel. This lead shows no signs of "giving out."

Half a mile northeast of Skull Flat, is the Texas lead, owned by Mr. J. Candrum, familiarly known among the miners as "Texas," by whom it was discovered and opened in September last. He has opened it along the surface for a distance of some twenty or thirty feet. Its average breadth is about ten inches, and the rock has paid about $35 per ton. Near the Texas, Messrs. Johnson and Willis have discovered and partially prospected a lode about a foot wide, which they think will pay $70 or $80 per ton, though none of their quartz has yet been crushed. On my way back to West Point I visited the mine of Gouldson & Co., situated one and a half miles east of West Point. They have opened their ledge but about fifteen feet down from the surface, as they are troubled with water. It has been thus far about two feet in average width, and the rock taken out for a distance of fifty or sixty feet along the surface has paid, according to the statement of Mr. Gouldson, $120 per ton. The owners are now engaged in running a tunnel from the ravine to the westward of the claim to strike the lead. This is in now a distance of 275 feet, and lacks about seventy feet of having reached the ledge. The tunnel is ventilated by air-shafts bored upward through the granite to the surface, with a two-inch auger. I have not noticed all the ledges discovered, nor all of which I have notes, but only enough to give the reader something of an idea of the character of the quartz mining operations now carried on in the West Point district.

On Tuesday morning, I left West Point in company with the Superintendent, Mr. J. K. Pine, to visit the works of

THE EAGLE QUARTZ MINING COMPANY,

situated on the right bank of the north fork of the Mokelumne, in Amador county, and about two and a half miles north of West Point. The property of the company consists of five different ledges, on each of which they claim 4,000 feet. The principal of these are the Contreras, and the Eagle. The former of these is believed to be the most valuable, as it proved to be very rich when worked by Mexicans some years since. Mr. Pine commenced work for reopening it during my stay, and with flattering prospects: The work of the company has heretofore been confined to the Eagle ledge, as that was most favorably located for convenience in removing the quartz to the mill, which was built before the property came into the hands of the present company. This ledge, like the Contreras, was originally worked by Mexicans, and was said to be very rich on the surface. Mr. Pine has run a tunnel into the hill a distance of 160 feet, half of which distance it is on the ledge. Where the ledge is first struck, at a distance of eighty feet from the mouth of the tunnel, it is about eight inches thick, but on following it thirty feet further, a body of quartz, two feet wide was struck, and in twenty feet more, one of three feet, while at the back end of the tunnel there is scarcely any quartz at all, the distance between the walls, about three feet, being filled with different strata of slate, greenstone talc, etc., all, however, containing more or less gold, and Mr. P. is sanguine that the quartz will again fill the vein at a distance of a few feet farther in. Meantime Mr. Pine is taking out from stopes above and below the tunnel sufficient rock to keep the mill running. The rock crushed thus far has paid an average of $35 per ton. The mill consists of one 5-stamp battery and a Baux & Guiod's pan. The latter is of a new pattern, which Mr. Baux calls improved, but it does not seem to work as well as one of the first style, now in use at the Mina Rica. Still, however, it gives pretty good satisfaction. The mill is driven by water power, furnished by a large overshot wheel, driven by water taken from the river about half a mile above. The upper part of the flume carrying this water was submerged during the freshet last winter to a depth, I am told, of fifty feet, yet it was never moved. It is a light inclosed flume, with no timber heavier than the inch boards of which it is built, and is fastened down to the living granite by half-inch rods of iron bent over the flume and wedged in at each end, into holes drilled in the rock. The whole work was designed and executed by Mr. Pine, for the Eagle Co., and is a triumph of engineering skill, over natural obstacles of the most stubborn character. During the afternoon, Mr. Pine, Mr. Walker, and myself visited the Pioneer mine some three miles to the northeast of the Eagle, and three and a half above Volcano. This mine I have noticed more at length in a former letter. The object of our present visit was to see the working of the concentrating and amalgamating machinery, invented by the Superintendent, Mr. Ambler, and which we understood had been started the day before. We found Mr. A. busy putting up the machinery, which was started only a few minutes before we were compelled by the lateness of the hour to return, and I was unable to get as full an idea of the machinery as I should be glad to do before attempting a description of the process. The concentrating apparatus consists of a "slum-tub" or settler, and a concentrator, the former being made of iron, and on exactly the same principle as "Stevenot's Concentrator" described in a letter from Robinson's Ferry, published in the PRESS of March 25th, 1865, with the exception that this is made of iron and that was of wood. The concentrator consists of a trough with sides of wood with bottom and vertically curved ends of galvanized iron, so hung that one side shall be about one-eighth of an inch lower than the other. Over the lowest side is placed a fine screen, to secure uniformity in the size of the particles passing into the concentrator, which is given, by means of an eccentric or crank, a jarring, longitudinal motion, which causes the lighter portion of the sands to be carried off by the stream of water running out at the higher side of the concentrator, while the sulphurets and heavy matter, settles on the lowest side. The amalgamator is attached to the same beam, and shares the motion of the concentrator, and is of the same form, differing in having the bottom formed of amalgamated copper-plate, instead of iron, and being set perfectly horizontal instead of slightly inclined. Across the top of the amalgamator is secured a wide board, in which are fastened a large number of little wooden pegs, which reach to the bottom and break up the pulp, as it is thrown against them by the jarring of the machine, causing the quicksilver to be more thoroughly mixed with it and preventing it from packing on the bottom of the trough. I am not sufficiently posted to be able to say whether this machinery will succeed or not, but my companions, both practical men, expressed themselves as highly pleased with its operation. One thing is certain; it is cheap, and requires very little power, which is quite a point in its favor.

After spending the night at the Eagle, Mr. Pine very kindly loaned me his horse to visit

THE BELDING MINE,

Located a mile and a half above the Eagle, on the same side of the river, but distant, by the road, about five miles. This mine is owned by the California Furnace Co., of San Francisco, and superintended by Mr. J. C. Benjamin of Volcano. A shaft has been sunk on the ledge to a depth of 154 feet, all the way through hard granite. The ledge is of an average width of two feet as far as explored, and evidently improves as it goes down. It is the most regular in its size and character of any ledge in this range. The shaft is three feet by six in the clear, and well and thoroughly timbered with heavy sawed timbers, making a fine working shaft for a permanent mine.

The mill consists of five stamps, with one of Wheeler & Randal's (No. 1) pans, used as a grinder and five of Knox's amalgamators. It is driven at this season of the year by water power; but a 10-horse steam engine is used in dry weather. This company have constructed a furnace for roasting and desulpharizing ores by O'Donnel's superheated steam process. The furnace has a capacity of fifty tons. Mr. Benjamin estimates that by this process, the yield of gold is increased from one-third to one-half, with a very slight increase of cost. Mr. B. says that for four years, the mill has never been stopped for want of quartz, and that the average pay has been $85 per ton. I dined with Mr. Benjamin, and remounting soon found myself at the Eagle mill, where I spent the night, and on the morning of Thursday bade good bye to my obliging host, and started in company with Mr. Anderson, one of the employees of the Eagle Co., for West Point, on our way to visit a ledge claimed by Messrs. Anderson & Smith, and situated on Anderson's Flat, four miles above. On our way up, we called at the Mina Rica, and on our return stopped and took dinner with Mr. Morris of the Nestor mill, who showed us a lead, which he had located and was working, or rather prospecting with fair promise of success. The ledge is about two feet wide, and is opened on the surface for a long distance, though I believe at no point to a greater depth than about twenty feet. He has about 300 tons of quartz out which he estimates at ten dollars per ton, which would give very little profit in working by the "arastra" process, but Mr. M. hopes to make it profitable, when cheaper and more effective means of crushing are introduced.

D.

Rich Gulch, Calaveras co., Feb., 1866.

[To be Continued.]

[Written for the Mining and Scientific Press.]

Resources of Siskiyou County.

BY PROF. O. K. GODFREY.

Agreeably to promise, I now send you a sketch of the agricultural and mineral resources of Siskiyou county.

This large county stretches nearly across the northern extremity of the State, and is worthy of notice not only in a mineral point of view, but also on account of its rich agricultural lands. It is interspersed with and surrounded on all sides by towering mountains, one of which is Mount Shasta, the highest peak in California. [The examinations of Professor Brewer, of the California State Geological Survey, made in the summer of 1864, near the head waters of the Kern and Kings rivers, in the southern portion of the State, prove that there is at least one peak in that vicinity which overtops Mount Shasta, and is in all probability the highest mountain in the United States. Mr. Brewer ascended this peak to the hight of 14,750 feet, at which point his progress was stopped, although he had not reached the top. A brief account of this reconnoisance was published in this paper under date of October 8, 1864.—EDS. MINING AND SCIENTIFIC PRESS.] There are three fine valleys—one at the extreme eastern part of the county and two in the western.

Surprise, Shasta and Scott valleys redeem it from the sterility and ruggedness of its general aspect. These valleys, though elevated several thousand feet above sea level, are very fertile, and susceptible of a high scale of cultivation. Rich green foliage, which clothes them in spring and early summer, presents a singular contrast with the snowy-clad peaks around them.

Surprise Valley is situated fifteen miles to the southeast from Goose Lake, on the eastern slope of the Sierra Nevada mountains. It lies north and south, and is fifty miles in length from actual measurement, and averages about ten miles in width.

Lassen's old emigrant road passed through the upper end of this valley between two lakes, and but little was known about it till the boundary survey was made between Nevada and California. The line runs lengthwise through the eastern portion of the valley.

The most prominent and attractive features of the valley surroundings are the three lakes located in different parts of the valley, and the Sierra Nevada pine-clad mountains, having a number of creeks gushing forth from their summits, and winding through the valley, which finally empty into these lakes. During the past two years it has proven to be susceptible of growing all kinds of grains and vegetables.

Shasta Valley presents rather a singular appearance from its formation. It is about thirty-five miles long and some ten miles in width, and stretches away from the base of Mount Shasta to the northwest, where the lower end narrows to a cañon, through which Shasta river runs and empties into the Klamath. This valley is studded with a hundred or more round mounds and conical hills, whose tops are strewn over with rocks and long angular fragments, presenting a singular appearance, with Mount Shasta rising his hoary head high in the heavens. The agricultural lands lie in narrow belts on either side of Shasta River and along creeks which come down from the mountains.

This valley is well adapted to grazing purposes. During the winter season large bands of stock find pasturage among the hills and along the creeks. The flourishing city of Yreka, the largest north of Marysville, is located in a long, narrow valley, near the lower end of Shasta Valley, and the extraordinary yield of the mines in that vicinity and further west has given it a long and continued prosperity.

Yreka is a pleasant inland city, and in the suburbs of the town are neat dwellings, surrounded by luxuriant fruit and flower gardens, and everything necessary to render a home pleasant and happy. The streets are wide and regular; the hotels, stores, and business houses present a scene of lively activity. In education and morals the citizens have wisely taken a deep interest, and deserve credit for having good schools, fine churches, and able ministers.

Scott Valley, the queen of all the valleys in Northern California, is not only one of the most healthy but one of the most fertile and picturesque valleys in the State. It is located in a mineral section of country. It is about forty miles long, and will average four miles in width, though near the centre it widens to ten miles or more. About half way of its length on the west side, where the main valley begins to contract, there is a mountain in the shape of a triangle, four miles long, which commences to rise gradually from the valley towards the north to the hight of a thousand feet, where it terminates abruptly. At the northeast corner of the mountain, near Fort Jones, the valley and river bends sharply to the west, and leaves the narrow valley of Oro Fino on the west side of the mountain, which opens out into the main valley to the northward. Parallel with Oro Fino Valley on the west is Quartz Mountain, extending north and south six miles, and is attached by a low divide to Salmon mountains. Quartz Valley begins on the west side of the low divide near the Pinery, and is two miles wide, and opens out into the main valley at the lower end, where the river enters the mountains. Scott Valley may be considered in its outline form like a triangle. It contains many thousand acres of rich agricultural and grazing lands, and the surrounding mountains contain rich lodes of metaliferous rock. The scenery is truly beautiful and picturesque. The rich alluvial soil, dotted with pleasant dwellings and the homes of families, present a scene of comfort that is truly enviable. The soil on the upland near the foot-hills is composed in part of gravel and sand, hence the roads are pleasant and smooth at all seasons of the year.

This valley is well watered by streams, affording an abundant supply of water for the many herds of cattle, sheep, and swine that feed on the hill-sides and in the valleys. Following these streams, as they rush down the precipitous mountain sides, and then winding their way to the foot-hills, they afford many fine mill privileges. There are five flouring mills and ten saw-mills located in different parts of the valley, which supply the citizens of the valley with flour, and fencing and building lumber.

On the west side of the valley is a dense forest of large pine, fir and cedar timber, from half to a mile in width, stretching the whole length of the valley. To the eastward of the valley the foot-hills and low ranges of mountains stretch away towards Shasta valley, through which Moffitt's Creek winds around from the southeast and enters the valley at Fort Jones. These foot-hills furnish a fine range for grazing purposes, and abound in beautiful open groves of oak and fine timber. At the lower end of the valley, where the river enters the cañon, the mountains rise abruptly, towering in wild confusion above the clouds, and clothed in the habiliments of snow, while deep in the valleys below rushes the overflowing waters of Scott River!

Scott Valley is the Eden of Siskiyou county. The checkered fields are finely fenced, and at little intervals comfortable farm-houses and orchards attest the result of the laborers—of the tillers of the soil. This valley is the home of a thrifty and rapidly increasing population, devoted to rural and mining pursuits.

The villages of Oro Fino, Rough and Ready, and Fort Jones have grown up in different parts of the valley, and are prosperous and will continue to thrive with the energy and industry of the intelligent and hardy farmer and miner. They have a rich county to support them, in productive soil and undeveloped mines, which will last for years before they are exhausted. In my next I will give an account of the mineral resources of this county.

MANY, if not most, of the presidents and professors of our leading colleges have united in a memorial, looking to the adoption by this country of the decimal system of weights and measures now current in France, Holland, Belgium, Spain, Italy, and some other countries. They propose to begin by having it explained and analyzed in all our arithmetics.

THERE have already been organized sixteen hundred and thirty National Banks, with an aggregate capital of four hundred and nine millions. The total amount of circulation up to the present time is two hundred and sixty-two millions of dollars.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Monday, March 12.

AFTERNOON SESSION.

16 shs Chollar-Potosi at 400@397½ per foot.
6 shs Chollar Potosi at 400 per foot, s 3.
6 shs Chollar-Potosi at 406@407½, b 30.
5 shs Chollar-Potosi at 395 per foot, s 30.
18 shs Yellow Jacket at 600@655 per ft.
2 shs Yellow Jacket at 660 per ft, s 5.
6 shs Yellow Jacket at 640 per foot, s 30.
1 sh Yellow Jacket at 663 per foot, s 3.
1 sh Yellow Jacket at 660 per foot, s 6.
132 shs Ophir at 667@692 per foot, s 3.
420 shs Ophir at 700@670 per foot.
35 shs Opbir at 790@685 per foot, b 30.
12 shs Ophir at 670 per foot, s 30.
2 shs Savage at 1100 per foot, b 3.
2 shs Savage at 1090 per foot
20 shs Daney at 13 per foot.
6 shs Belcher at 305@308 per foot
2 shs Belcher at 320 per foot, b 30.
4 shs Crown Point at 1270 per foot.
8 shs Crown Point at 1250@1260 per ft, s 3.
4 shs Crown Point at 1250 per foot, b 3.
10 shs Overman at 90 per foot, s 3.
15 shs Overman at 97½ per foot. b 30.
10 shs Confidence at 75 per share.
27 shs Confidence at 75 per share, s 3.
19 shs Imperial at 175 per share.
Amount of sales.....$230,093 25

Tuesday, March 13.

420 shs Ophir at 650@632½ per foot.
112 shs Ophir at 655@652½ per foot, b 30.
36 shs Ophir at 630 per foot, s 3.
24 shs Ophir at 635 per foot. b 10.
43 shs Ophir at 635@630 per foot, b 2.
4 shs Gould & Curry at 1050 per foot, s 15.
6 shs Savage at 1085@1060 per foot.
3 shs Savage at 1075@1060 per foot, s 3.
10 shs Chollar-Potosi at 400 per foot.
5 shs Chollar Potosi at 400 per foot, b 3.
14 shs Chollar-Potosi at 416@412½ per ft. b30
4 shs Hale & Norcross at 1150 per foot.
8 shs Hale & Norcross at 1160 per sb, s 3.
11 shs Yellow Jacket at 650@612½ per ft. 3.
59 shs Yellow Jacket at 640@600 per foot.
45 shs Belcher at 319@390 per toot.
2 shs Belcher at 360 per foot, s 3.
3 shs Belcher at 355 per foot, s 6.
20 shs Alpha, O H, at 350@340 per foot.
15 shs Empire M & M Co. at 240@237½ pr sh.
8 shs Empire M & M Co. at 235 per sb, s 3.
20 shs Imperial at 170 per share, s 30.
76 shs Imperial at 176@185 per share.
75 shs Sierra Nevada at 12 per share.
20 shs Exchequer, at 10 per share, s 3
58 shs Confidence at 80@84 per share.
10 shs Confidence at 80 per share, s 3.
20 shs Bullion at 96@97½ per share.

AFTERNOON SESSION.

9 shs Chollar-Potosi at 400@397½ pr ft.
10 shs Chollar-Potosi at 410 per foot, b 30.
10 shs Chollar-Potosi at 390 per foot, s 30.
5 shs Chollar-Potosi at 408 per foot, b 30.
10 shs Chollar-Potosi at 395 per foot
15 shs Chollar-Potosi at 405 per foot, b 30.
10 shs Chollar-Potosi at 395 per foot, s 30.
180 shs Ophir at 650 per foot, b 30.
24 shs Ophir at 625 per foot.
12 shs Ophir at 625 per foot. b 3.
24 shs Ophir at 620 per foot.
48 shs Ophir at 620 per foot, b 6.
120 shs Ophir at 615@610 per foot.
15 shs Yellow Jacket at 600@585 per ft.
3 shs Yellow Jacket at 550 per foot, s 30.
2 shs Yellow Jacket at 580@575 per foot.
2 shs Yellow Jacket at 540 per foot, s 30.
1 sh Yellow Jacket at 570 per foot.
4 shs Yellow Jacket at 525 per foot, s 30.
12 shs Hale & Norcross at 1150 per foot.
22 shs Belcher at 350@320 per foot.
1 sh Belcher at 320 per foot, s 10.
4 shs Belcher at 345@350 per foot, b 30.
9 shs Savage at 1075@1060 per foot.
1 sh Savage at 1085 per foot, b 30.
1 sh Savage at 1060 per foot, b 10.
3 shs Savage at 1050 per foot, s 30.
6 shs Savage at 1050 per foot, b 30.
4 shs Crown Point at 1300 per foot, s 3.
30 shs Overman at 80 per share, b 10.
24 shs Overman at 80 per share, b 3.
10 shs Overman at 80 per foot, b 5.
5 shs Overman at 79 per foot, s 5.
6 shs Overman at 75 per foot, s 30.
27 shs Empire M & M Co. at 235@210.
19 shs Imperial at 170 per share.
60 shs Sierra Nevada at 12@11¼ per share.
13 shs Confidence at 80 per share.
25 shs Bullion at 97½@99 per share.
Amount of sales..... ...$219,428 50

Wednesday, March 14.

828 shs Ophir at 630@700 per foot.
12 shs Ophir at 700 per foot, b 5.
96 shs Ophir at 700@690 per foot, b 3.
35 shs Ophir at 695 per foot, s 3.
15 shs Chollar-Potosi at 397½@395 per foot.
6 shs Hale & Norcross at 1100@1050 per ft.
200 shs Daney at 12@11 per foot.
23 shs Yellow Jacket at 580@600 per ft
2 shs Yellow Jacket at 580 per foot, s 3.
10 shs Savage at 1010@1000 per foot, s 30.
6 shs Savage at 1020@1030 per foot.
4 shs Savage at 1020@1030 per foot, s 3.
2 shs Savage at 1010 per foot, b 3.
1 sh Savage at 1020 per foot, b 5.
3 shs Savage at 1025 per foot. b 10.
1 sh Savage at 1060 per foot, b 30.
32 shs Crown Point at 1300@1310 per foot.
2 shs Belcher at 330 per foot, s 5.
12 shs Belcher at 330@320 per foot.
3 shs Belcher at 325 per foot, s 3.
2 shs Belcher at 325 per foot, s 10.
1 sh Belcher at 330 per foot, s 15.
17 shs Empire M & M Co, 212½@200 per sh.
6 shs Overman at 70 per foot, s 3.
70 shs Overman at 70@65 per foot.
6 shs Confidence at 80 per share, b 30.
15 shs Confidence at 75 per share, s 3.
5 shs Confidence at 76 per share, b 6.
35 shs Bullion at 100@1 03 per share, b 30.
9 shs Bullion at 97@99 per share.
30 shs Bullion at 95 per share, s 3.
55 shs Imperial at 165 per share, s 30.

REPORT

ON THE

Mining District of BATOPILAS, in the State of CHIHUAHUA, MEXICO.

[Extracts from a work just issued from the Mining and Scientific Press Job Printing Office.]

(Continued from Page 149.)

EL "PYRAMO,"

Which, while giving metal in several small workings, crosses a solitary huge stone or cliff, sticking out to the height of some sixty feet from the side of the hill. In this, near its summit, was found a considerable quantity of massive silver, following which the whole of the rock was traversed, causing a hole which resembles a window, from which there is a magnificent view of the valley below and the mountains opposite.

LA "TRINIDAD,"

Of recent date, was first discovered by gambusinos. It got later into the hands of Don Francisco Viniegra, who, prospecting it merely for some thirty varas, took out some $25,000. Part of this ran in excellent metal, up to perfectly native silver of two and three inches thickness. I saw a single stone, a few years ago, that came from it, which was valued at and sold for over $400.

This claim was soon after purchased by an American Company; but they failed to prosecute the work vigorously, although it certainly gives the very highest promise, if a tunnel should be run, cutting all the lodes some distance below their present works, and these, besides, prospected above at different places. The metal emanating from this district is, besides the visible native silver, exceedingly rich in sulphurets.

THE "ROSARIO"

lays on a spur of the same mountain, very near by and north from the foregoing. It is a new and almost virgin mine, having only a small shaft of fourteen varas, which gave to its late owner, Don Ventura Avencino—a Spaniard who died a short time ago—over $16,000, principally in the richest kind of sulphurets, intermixed with solid silver. It is now held by Mr. James Jacques, but not worked at present, although it holds the well justified hope of very rich rewards, laying throughout in first-class mineral grounds.

LA "DESCUBRIDORA,"

Another great bonanza mine of the last century, is on the same mountain, a few hundred yards lower down.

Of this mine, at present entirely filled up with rainwater, and therefore unaccessible, is only known that it gave, in years long gone by, very great treasure, the amount of which is now lost.

The last one who worked in some of its upper works was the late Don Marcos Viniegra, who, about thirty years ago, took out considerable silver therefrom, but did not get down to the old bottom. It might however again be opened by means of a tunnel, which could be driven on the lode.

Besides these, there are quite a number of other mines and lodes, some of which have been merely picked at, and contain at least very inconsiderable works. Others, as yet, entirely virgin. The majority of such as are favorably looked upon, lay in good mineral ground, and need only some judicious outlay of capital and prospecting in order to show what they are worth.

Among them rank:

The "Nuestra Señora," on an eastern spur of the "Cerro de Animas," giving very rich earths near the surface.

The "Camuchin" and the "San Antonio de los Tachos," both of which are on a spur to the west of Batopilas. They are old mines, now filled up with water, but have given very rich returns, the latter one especially, in chlorides and earths, *(tierras)*. They could be easily drained by a short tunnel, and profitably rehabilitated, as their general features promise very highly. The "Sacramento," a vein of considerable size; the "Todos Santos," the "Gavilanes," and others on a hill in front and southwest of the "Pastrana" and "Arbitrios" mines; the "Providencia" and the "Cobriza," both on the same spur of and above the "Arbitrios," in fact, the latter belonging to its claim, and said to be on the same lode.

The five latter ones have given rich pockets of chlorides and native silver, on or near the surface, but no work has been prosecuted on them since those gave out, and are therefore almost virgin.

CONCLUDING REMARKS.

I will now add a few further remarks on the profitability of investments and mining enterprises in Batopilas.

First.—*Old Mines*, celebrated for their great mineral wealth, being generally filled to a great extent with water and rubbish, or mud, require considerable time and a corresponding capital to clean them out, and sink after that through the intervening space below their bottom, in order to get anew into the continuance of the silver deposit. They give, however, almost the assurance of another rich reward, if the work is reasonably persevered in. Companies undertaking such, must be prepared to remain out of their capital for at least from one to two years.

Second.—*New Mines, or Virgin Veins*, do not require much capital for the first year's work, as a shaft must be first sunk to a depth of from twenty or thirty varas before silver can be expected in sufficient quantities to justify driving levels on the lode. An outlay of from $75 to $100 per week would be sufficient to pay for this work, as hardly more than six or eight men at a time can be profitably employed in a single work. Under all circumstances it would be advisable to have a capital of not less than from $5,000 to $10,000 paid in for working purposes

Third.—*New Mines*, that have already been opened and yielded some, hold out a great security for an enterprise upon them, provided they lay in good mineral ground. But all such must be purchased, and cannot be had for less than from $25,000 to $50,000. Besides these funds, there should be a reserve, or working fund, of $10,000 in cash, to enable the party to carry on works without being cramped.

It is necessary to have sufficient means on hand to buy provisions when cheap, for the support of the workmen, saving sometimes from 15 to 50 per cent. in this way.

It is well to get out a large quantity of ore before commencing the amalgamating work; and further, to be able to hoard up the silver bullion until there is enough to send directly to the mint at Alamos.

Nature, in some minerals, has formed very wide lodes, giving ore of small *ley*, whereas here the precious metal is concentrated in rather narrow veins, but giving as much in one cubic yard, as would be contained in ten cubic yards in other districts, where the lodes are wide and the ores poor. For, as I already stated in a previous chapter, the metal of Batopilas ranges up from, never less than $100 to $500, and thence to $5,000, $10,000, and $20,000 to the ton.

Mining companies wishing to purchase mines, and engage in enterprises in Batopilas, should be very careful in choosing agents to examine them. They should be men well versed in mining, mines, ores, and metalurgy; men who have travelled through and over the Sierra Madre range of mountains, or they may grow faint at heart long before they arrive at the mines. Otherwise, the newly arrived agent, fatigued and prejudiced against the country on account of its rugged appearance, will have made up his mind, long before entering a mine, that it is too far away from civilization.

In my opinion, there is hardly another mineral district existing in Mexico, which offers inducements equal to Batopilas, and the time must, by the very force of circumstances, be near at hand, when its ancient fame shall revive and spread anew.

We have every reason to be confident in our belief, that within a few months several of the claims will enter into bonanzas, each of which may, and very likely will, turn out many millions of dollars—the "San Miguel" claim, for instance, the "Santa Teresa," the "San Nestor," and the "Pastrana." Two of these, the "Santa Teresa," and "San Nestor," are already actually in such.

What an extraordinary stimulus these will give at once to the other enterprises is easily understood; and let, after that, mines like the "Arbitrios," "Cata," and others, come in with their treasures, which they may do before a long time expires, the silver produce of Batopilas will astonish the world, and mining property rise immensely in value.

For, if in earlier days, with their scanty means and implements, the Spaniards took out hundreds of millions, and these merely, so to speak, from the surface, *what should not then reasonably be expected from our actual facilities, enterprise and capital, after once fairly opening and prospecting these almost virgin lodes?*

Everything, in fact, goes to prove that Batopilas contains yet silver enough in its mountains to satisfy our wildest dreams. Where there is grass growing above, there must be roots below to feed it.

In regard to the political troubles that this country is laboring under at present, we may safely hope that they will soon find a satisfactory solution. As yet, they have not interfered in the least with our interests here, and probably will not for the future, as it is, and must be the policy of the contending parties to foster, rather than to disturb them.

Having nothing further to communicate for the present, I remain

Your Respectfully,

A. E. KOELS.

[Extracts from the Seventh Annual Circular of the Miners' Foundry—Now in press in the Mining and Scientific Press Job Printing Office.]

MINING INTERESTS.

From the Mining Review for 1865, *in the Mercantile Gazette and Prices Current.*

This event (the discovery of gold on this coast), like many other important discoveries, was the result of accident; and though it failed, as often happens in cases of this kind, to enrich the party making it, it produced at once a marked effect upon the trade, industry, and financial aspect of the whole civilized world. The energies of the nations were aroused, emigration was excited, new channels of transportation and travel were opened, and new enterprises were set on foot—every interest and department of labor being made to feel its quickening and invigorating influences. The finding of gold in California having awakened public attention to the subject, led to its discovery soon after in Australia, and finally in Oregon, British Columbia, and elsewhere, until there is not at present a State, Territory, or perhaps even a province, west of the Rocky Mountains, in which it has failed to be found in remunerative quantities. That the potency of this new agent is tending to revolutionize the financial and industrial affairs of the world, may be inferred from the fact that the product of the precious metals during these eighteen years, upon this coast alone, has added nearly one thousand millions of dollars to the stock previously in existence; the contribution from this source being at the rate of more than fifty millions per annum. * * * * That this rapid enlargement of the standard measures of values, and medium of exchange, should be attended by a corresponding expansion of prices, and an unwonted excitation in every department of business, was not only natural but inevitable. Hence the advance in the prices of property and labor, the impetus given to every branch of industry, whether speculative or practical, and the general activity, mental and material, seen the world over, together with that love of exploration and adventure which this condition of things has tended to nourish, and which has found its most marked development in our own people; and however the business of mining may fluctuate, or fail to prove remunerative in certain cases, it must always continue, as it has heretofore been, a leading pursuit, not only in this State, but upon the entire coast of the Pacific. * * * * The receipts of uncoined gold and silver in the city, through public channels, during the past year amounted to nearly $49,000,000 as against $48,000,000 in 1864. In 1863 they were less than $44,000,000; in 1862 not quite $42,000,000; and in 1861 just about $40,000,000. During the last twelve months the area of our metalliferous territory has been considerably extended, while many mills and reduction works of large capacity have been put up in various parts of the country. The greater portion of these have not yet commenced operations, or been running sufficiently long to tell with much effect upon the product of the year just closed. Another season they will increase in the annual product materially. Besides this, the business of mining promises to be carried on hereafter with more system and economy, not to say honesty, than has hitherto characterized it as conducted in certain cases. The plan of working mines with a view to enhance or

depress the prices of stock, as might best serve the interests of those having control of them, is not likely to be practised to the same extent as formerly, it threatening to prove nearly as dangerous to those engaged in carrying it on as to their intended victims. That this business may speedily be purged of this and all other abuses is greatly to be hoped, since to it we must continue to look for those large and certain revenues which have thus far never failed us, as they are not likely to do, our mines being vast in extent and literally exhaustless. * * * * Wherever it has been carried on in a legitimate manner, being conducted with the same discretion and care evinced in most other callings, it has generally proved a success; the failures mostly being attributable to lack of skill, extravagant expenditures, or some other sort of mismanagement.

EXTENT OF THE MINING FIELD.

We have now within the American possessions, west of the Rocky Mountains, three States and five Territories, embracing an area of more than one million square miles, the whole of which may be considered a mining country. Not that every part of this vast region is metalliferous; there being large tracts of it in which the precious metals at least have not been met with in any considerable quantity Still, scattered everywhere over its surface are districts abounding in not only these but also in nearly every variety of the useful metals; the latter, in some one or more of their varied forms, being nearly everywhere present. To what extent this region is metal bearing has as yet been but partially determined; its magnitude, and the difficulties attending its exploration, having precluded a thorough examination of more than a small part of it. Of that portion lying within the limits of California and Nevada, with which we have become most familiar, it can be truthfully said that the more it has been explored the greater appears to be its capacity for yielding, under the conjoint aid of well-directed labor and ample capital, large amounts of gold and silver. It is now perceived that the placer mines of this State, liberally as they gave up their treasures at first to the simple and inexpensive processes employed for working them, formed but the husk and chaff, as it were, of our real and more substantial mineral wealth, hid away in the vast repositories of auriferous quartz found in every county that flanks the Sierra; while the further the work of prospecting has been carried into the wilds of Nevada, Utah, and Idaho, the richer and more extensive have been the discoveries made, establishing, to all practical intents, not only the illimitable bounds, but also the inexhaustible character of this field of labor.

PLACER OR SURFACE DIGGING.

To the placer miners of California the past year has been one of general success, the supply of water having been better than usual, and the season every way favorable. There is no question but the aggregate yield from this source has been larger the past than for several years immediately preceding, though we have not the means of ascertaining the exact amount taken out during this time. Besides the causes mentioned above, there have been others lately brought into operation tending to swell the product of this class of mines—such as larger numbers engaging in them; the discovery of new diggings; the re-opening and working over with greater care, or by improved appliances, of old ones; penetrating further into the gravel deposits; larger crushings from the cement beds, and a general enlarging of the area of the mines, coupled with a more efficient style of machinery, greater economy, and more careful manipulations of the auriferous earths. * * * * Coming into Tuolumne and Calaveras, and passing thence through the tier of counties that lie against the western slope of the Sierra into southern Oregon, we find the work of placer mining being vigorously and intelligently prosecuted, in all its different branches; and aided by all the auxiliaries that capital can command, or that ingenuity has been able to invent, or science supply. Here we have every variety of mining, and see at work the many devices contrived for diminishing labor and saving gold. The several styles of sluices, the hydraulic washings, the long tom, and in some instances the still more primitive pan and rocker are all encountered, and the hill, gravel, dry, river, tunnel, and cement diggings are seen in every stage of development. By passing over to the sea shore, in Klamath County, we can even witness the operations of what is known as "beach mining," carried on in the vicinity of the once famous Gold Bluff. To describe these different kinds of mines, and the various appliances and modes adopted in furtherance of this business, would require more space than could well be spared; suffice to say, the latter are nearly all the inventions of practical miners, called forth by the necessities of their business, or suggested by experience, and that water is the principal agent employed in separating the gold from the earth and gravel in which it is imbedded, these contrivances being simply used to apply it more effectively. It is in the central and northern portions of the State that we find the principal hydraulic washings, and here too are the blue gravel lead and cement deposits, marked features of that section, from all which large quantities of gold are annually extracted. The supply of water furnished by the late copious rains having enabled the miners to get to work early in the season, there is much activity evinced throughout the placer diggings, and with timely rains from this on till the dry season sets in, the product from this source will undoubtedly prove individually remunerative, and in the aggregate large.

QUARTZ MINING.

While in the province of placer mining the new discoveries being made are few and unimportant, and the diggings already found are being gradually depleted, the area of the auriferous quartz is being constantly extended, every year adding steadily and largely to the yield derived from this source. In magnitude the quartz region of California is already even more than commensurate with that of the surface mines, and in general terms may be said to reach from the Clear Creek District, in the southern extremity of Tulare County, to the northern line of the State, a linear distance of nearly five hundred miles. In breadth it varies from ten to a hundred miles, giving an aggregate area of at least twenty thousand square miles, over which these metalliferous lodes are scattered, some districts containing them in great numbers, and others more sparsely. These lodes do not abound in all parts of this extensive territory, but lie in groups or spots, sometimes widely separated, the intervening country being comparatively barren, or containing veins of little value. In some sections, too, the quartz is much more highly auriferous than in others, the smaller and more regularly shaped veins, as a common thing, carrying the larger per centage of gold. As is usually the case with auriferous lodes elsewhere, those of California generally have a north-westerly and south-easterly strike. In thickness they vary from a few inches to as many feet, being in some instances of a much greater size. Ledges a hundred feet thick are not uncommon, but this class are not ordinarily composed of pay rock throughout; in fact are apt to have what gold they do contain so diffused throughout the mass as to render it valueless. It would almost seem as if nature had allotted a specific amount of the precious metal to each ledge, the large and small alike, thereby rendering the working of the latter a much easier matter than the former, the amount of rock requiring to be reduced being so much less in order to secure an equal amount of gold. The large sized ledges, however, often contain streaks and pockets that prove very rich. The dip of the lodes in this State is almost uniformly towards the east, some of them having a high and others a low inclination. Some of the richest veins stand nearly perpendicular, while others lie almost flat. In length they are equally and even more variable, being traceable sometimes for miles, while again they can be found only for a few hundred feet, or perhaps less. The position of the quartz belt of California is longitudinally through the center of the State, embracing the foothills of the Sierra Nevada Mountains. It has an altitude varying from one to five thousand feet above the level of the sea, reaching at a few points to a greater height, but not often found below the line of elevation first mentioned. Towards its southern limit this belt trends to the east, and crossing the Sierra Nevada chain has its extremity in the Owens Valley country; while in the opposite direction, following the straggling spurs of this same range, it sweeps to the north-west, and terminates on the shores of the Pacific, a portion continuing on into southern Oregon. At one time it was thought there was no quartz in the more elevated portions of the Sierra Nevada, but this has since been found to be a mistaken opinion. More recent explorations have brought to light extensive districts containing lodes of this rock, highly impregnated with both gold and silver. The Kearsarge District, in Tulare, and the Excelsior, in Nevada County, with several of less importance situate between them, but all lying high up the sides, and several quite on the summit of the Sierra, disprove this theory, and go far toward warranting the belief that these mountains may yet become the theater of large and profitable mining operations. * * * * Aided and stimulated by the liberal investments being made, there is now much prospecting going on, both in the way of opening ledges already located, and in searching for new ones. In most cases miners who dispose of their interests employ the proceeds in prospecting for others, or in working the claims they may still own.

The quartz mills throughout this State vary in capacity from three stamps to fifty; the number contained in the mills built at an earlier day generally running from five to twenty. Lately the number has been larger. Most of the mills are employed in crushing rock from the ledges belonging to their several proprietors; and hence there is in many districts a need for mills to do custom work. It is usually estimated that each stamp has a capacity to crush one ton of rock in twenty-four hours. The earnings of some of these mills and mines are enormous. The average monthly yield of four mills on the Fremont Mariposa estate was over $60,000. The net earnings of the Crescent Company, Plumas County, have been at the rate of $100,000 per annum, while, as we have already seen, many of the leading mines about Grass Valley have produced still more munificently. The total yield of the Allison Ranch Mine at that place, since operations were first commenced upon it, has exceeded $2,500,000; the group of claims on Massachusetts Hill have turned out about $3,500,000; the North Star and other mines on New York Hill have yielded $2,500,000, and the Norambagua alone $1,000,000. The complement for Gold Hill has been $3,000,000, and for the Lone Jack Mine, Ophir, Deborque, and Ilueston Hills, the aggregate has been fully $3,500,000. The product of the Eureka, during the past two years, has exceeded $500,000, its earnings for the month of December last alone having been more than $43,000. The aggregate amount of gold taken from the quartz mines within the limits of the Grass Valley District since 1852—thirteen years—has been at least $20,000,000. In corroboration of the substantial correctness of this statement, we find, after a very careful examination of all the records and other data at our disposal, that the aggregate yield of Grass Valley, during the past thirteen years, has been about $28,000,000, including all the receipts from the surface mining claims in that region. From these latter sources the most reliable statistics show that about $8,000,000 has been obtained, leaving $20,000,000 as the probable product of the quartz mines since 1852. This is believed by many well informed parties to be too small an estimate, but wishing to be within bounds we conform to the above figures. During the past year the quartz mines of Grass Valley have yielded about $3 300,000, or an average of $275,000 per month, and the coming year is likely to show a product of more than $4,000,000. The Sunbeam Mill, Tuolumne County, turned out at the rate of $50,000 per month when it first started, and although it did not keep up that yield, has earned vast sums most of the time since. A large number of mills of ordinary capacity might be mentioned that for years have steadily earned from $10,000 to $20,000 per month. Most of these mills run night and day. Immense sums have heretofore been and are still being lost in the working of quartz, from inability to separate the gold, by the ordinary modes of treatment, from the sulphurets of iron and copper with which it is combined. Many efforts are being made to meet this difficulty, some of which have been partially successful, and there is reason to hope that the desideratum will be supplied at an early day. About two-thirds of the mills in California are propelled by steam, and the balance by water, the latter generally being those of inferior capacity. The most of them run night and day, stopping only for repairs or on Sunday.

The business of quartz mining upon this coast is not confined to California, there being a great number of ledges in Nevada, Idaho, and in fact throughout all parts of our Pacific possessions, that are now being or will hereafter be worked by a simple gold-saving process, that metal, while there is always a small per cent. of silver present in the rock, greatly predominating. The bullion obtained from this class of ledges is worth from $0 to $14 per ounce.

SILVER MINES AND MINING.

While California has within her borders a considerable number of what may properly be termed silver-bearing lodes, she has as yet produced but little of this metal, the bulk of it having come from the mines about Virginia City, and other localities in the State of Nevada, where the business of mining for it is extensively engaged in. The yield of that State for the past year amounted, in round numbers, to $16 000,000, the same as the year before; the entire product of that region, since the discovery of silver there in 1859, being estimated at about $40,000,000.

AMOUNT OF BULLION TRANSPORTED BY WELLS, FARGO & CO., FOR 1865.

The following is a statement of the amount of bullion received, exclusive of coin, from the different mines of the Pacific Coast, at San Francisco, from January 1st to December 1st, 1865, by Wells, Fargo & Co's Express Company:

From Northern Mines	$10,620,436	Estimated for the month of December:	
From Washoe (Virginia City, Gold Hill, Silver City, etc.)	14,074,461	From Northern Mines	$1,764,000
From Reese River Mines	773,076	From Washoe	1,000,000
From Southern Mines	4,707,274	From Reese River	77.000
From Portland (Idaho Mines, etc.)	4,510,096	From Southern Mines	375.000
From Victoria (Carriboo, Fraser River, etc.)	1,469,061	From Victoria	272.000
		From Portland	500.000
Amount received	$45,245,004	Estimated for December	3.988,000
		Amount received	45,245.004
		Total	$49,233,004

SODIUM AMALGAMATION.

Numerous inventions have been devised to prevent the loss which often attends the best conducted operations, and avoid the causes which involve it; but until lately with very indifferent success.

It has been ascertained by repeated trials that the use of a minute portion of the metal sodium, has the power of destroying the action by decomposition of all substances which have hitherto proved so serious a difficulty in bringing the gold into contact with the mercury.

The sodium, from its decomposing power, preserves the quicksilver in a pure and active state, so that, when introduced into the battery, or pan, amalgamation takes place with great rapidity. The quicksilver, from the motion of the stamps or muller, is projected against the cast iron sides, and sticks there as perfectly as it has heretofore done by the troublesome process used in galvanizing copper plates.

For galvanizing copper plates nothing has as yet proved anything like its equal. No washing by nitric or other acid is required. It is only necessary to rub the sodium amalgam on the plate.

For amalgamating in pans, the sodium amalgam should be dissolved in the mercury, in the proportion of two ounces of the former to five pounds of the latter, one hour before being put in. For amalgamating in the battery, the bottle containing the sodium amalgam should have a buckskin cover tied over its mouth, through which the amalgam is sifted into the mortar, through the feed opening, which operation requires to be repeated every half hour. A preliminary experiment or two will serve to illustrate the remarkable properties imparted to mercury by sodium.

1. Shake up, in a test tube, a small quantity of mereury, say half an ounce, with a moderately strong solution of sulphate of iron. The mercury is presently reduced to the condition of thick mud, being so completely granulated (floured) as to resist all efforts to restore it to its proper condition, and retaining this condition almost indefinitely. Drop now a minute particle of sodium amalgam into it, when instantly the whole is restored to its fluid state, and subsequent efforts to reproduce the granular condition are futile if the least trace of sodium remains.

2. Bring a small particle of placer gold, or gold from quartz, into contact with a little clean mercury, in its ordinary condition. It will be seen to push the gold before it as it rolls about, and refuse to amalgamate with the gold, even when beneath its surface. In fact there seems to be a sort of active repulsion between the two metals.

3. Bring the same particle of gold into contact with mercury having a minute portion of sodium amalgam dissolved in it, when immediately the gold is completely enfilmed by the mereury and disappears under its surface.

The Sodium Amalgam, as well as the metal itself, ready for use, may be obtained in any quantity desired at the Miners' Foundry, or of H. P. Wakelee, Druggist, corner of Montgomery and Bush streets, San Francisco, California.

10 shs Imperial at 165 per share, s 3.
20 shs Sierra Nevada at 13¾ per share.
20 shs Exchequer at 10@9¾ per share.
25 shs Lady Bryan at 3¾ per share.

AFTERNOON SESSION.

3 shs Savage at 1010 per 100t, s 30.
1 sh Savage at 1030 per foot.
1 sh Savage at 1023 per foot, b 3.
5 shs Savage at 1 20 per foot, b 10.
3 shs Savage at 1020 per foot.
4 shs Savage at 1000 per foot, s 30.
1 sh Savage at 1015 per foot, s 3.
20 shs Daney at 11 per foot.
24 shs Ophir at 675@670 per foot.
12 shs Ophir at 660 per foot, s 3.
12 shs Ophir at 655 per foot.
120 shs Ophir at 660 per foot, b 3.
132 shs Ophir at 660 per foot.
24 shs Ophir at 957½ per foot, s 3.
12 shs Ophir at 667½ per foot, b 10.
12 shs Hale & Norcross at 1020@1010 per ft.
5 shs Belcher at 330@325 per foot.
5 shs Belcher at 320 per foot, s 3.
3 shs Belcher at 320 per foot.
3 shs Belcher at 320 per foot, s 6.
4 shs Crown Point at 1300 per foot, s 6.
10 shs Yellow Jacket at 600@585 per foot.
8 shs Yellow Jacket at 585@580 per ft, b 5.
1 sh Yellow Jacket at 600 per foot, b 30.
1 sh Yellow Jacket at 560 per foot, s 30.
4 shs Yellow Jacket at 580 per foot
5 shs Yellow Jacket at 575 per foot, s 3.
7 shs Confidence at 72½ per share, s 3.
30 shs Confidence at 73@74 per share.
35 shs Confidence at 79 per share, b 30.
46 shs Confidence at 75 per share.
10 shs Imperial at 162½ per share.
10 shs Imperial at 160 per share, s 3.
25 shs Imperial at 160@159 per share.
5 shs Imperial at 160 per share, b 10.
10 shs Imperial at 160 per share s 10.
7 shs Empire M & M Co. at 215 pr sh.
5 shs Overman at 74 per share.
5 shs Overman at 75 per sh, b 5.
5 shs Overman at 72½ per sh.
5 shs Overman at 75 per sh, b 10.
5 shs Overman at 74 per share.
6 shs Overman at 70 per share, s 3.
5 shs Overman at 70 per share, s 10.
50 shs N B & Mission R. R. at 49 per 9hare.
Amount of sales.....$223,669 25

Thursday, March 15.

204 shs Ophir at 660 per foot.
492 shs Ophir at 660@650 per foot, b 5.
72 shs Ophir at 675 per foot, b 30.
18 shs Chollar-Potosi at 402½@393 per foot.
5 shs Chollar-Potosi at 400 per foot, b 5.
14 shs Hale & Norcross at 1010@1016 per ft.
6 shs Hale & Norcross at 1010@1015, s 5.
4 shs Hale & Norcross at 1020 per foot.
12 shs Hale & Norcross at 990@1000, s 30.
6 shs Hale & Norcross at 1010@1100 per ft.
201 shs Dancy at 12 per foot, b 30.
17 shs Yellow Jacket at 750@730 per ft.
2 shs Yellow Jacket at 740 per foot, s 3.
5 shs Belcher at 315 per foot.
1 sh Belcher at 315 per foot, b 3.
1 sh Belcher at 310 per foot, b 5.
5 shs Belcher at 305 per 100t.
6 shs Belcher at 300 per foot, s 10.
4 shs Savage at 984@975 per foot.
4 shs Savage at 976 per foot, b 10.
3 shs Savage at 1000@990 per foot, b 30.
6 shs Savage at 965@970 per foot.
4 shs Alpha at 310 per foot.
4 shs Crown Point at 1.00 per foot.
7 shs Empire M & M Co. at 215 per sh.
10 shs Overman at 70 per sh, s 30.
50 shs Overman at 70 per sh, b 10.
15 shs Overman at 70 per sh, b 3.
20 shs Overman at 72½ per sh, b 30.
15 shs Overman at 69 per sh.
10 shs Overman at 69 per sh, s 3.
25 shs Overman at 68@67½ per sh.
6 shs Overman at 70 per sh, b 30.
10 shs Overman at 66 per sh, b 3.
15 shs Overman at 66@65 per sh.
15 shs Sierra Nevada at 11¾ per sh.
10 shs Confidence at 80 per share, b 30.
16 shs Confidence at 76@74 per sh.
5 shs Imperial at 160 per share, s 30.
1 sh Imperial at 162 per share.
5 shs Bullion at 87½ per share, c.
100 shs Firemen's F. Ins. Co., at 122½ pr sh.
$30,000 Legal Tender, Notes at 76½ per cent.

AFTERNOON SESSION.

2 shs Yellow Jacket at 740 per foot, s 3.
2 shs Yellow Jacket at 740 per foot.
1 sh Yellow Jacket at 740 per foot, b 30.
2 shs Yellow Jacket at 725 per foot, s 3.
13shs Yellow Jacket at 750@755 per foot.
2 shs Yellow Jacket at 735 per foot, s 30.
2 shs Yellow Jacket at 752½ per foot.
132 shs Ophir at 660@650 per foot.
24 shs Ophir at 655 per foot, b 10.
24 shs Ophir at 670 per foot, b 30.
12 shs Ophir at 650 per foot, b 3.
12 shs Ophir at 652 per foot, b 5.
72 shs Ophir at 675 per foot, b 30.
9 shs Crown Point at 1180@1175 per foot.
10 shs Belcher at 300@290 per foot.
2 shs Belcher at 300@290 per foot, s 3.
10 shs Hale & Norcross at 1080@1090 per ft.
10 shs Savage at 970@960 per foot.
2 shs Savage at 1000@995 per foot, b 30.
10 shs Chollar-Potosi at 392½ per foot, s 30.
5 shs Bullion at 90 per share.
5 shs Bullion at 90 per share, b 3.
30 sh Confidence at 78@76 per tt, b 30.
25 shs Confidence at 76, s 30.
10 shs Confidence at 73@72 per ft.
10 shs Empire M & M Co. at 215 per sh.
12 shs Empire M. & M. Co. at 215, b 6.
5 shs Overman at 64@65.
30 shs Exchequer at 9½ per share.
10 shs Imperial at 165 per share.
Amount of sales.....$236,400 60

Friday, March 16.

228 shs Ophir at 650@620 per foot.
12 shs Ophir at 650 per foot, b 30.
9 shs Savage at 960@965 per 100t.
3 shs Savage at 990@1000 per foot, b 30.
30 shs Yellow Jacket at 735@690 per foot.
3 shs Yellow Jacket at 715 per foot, b 30.
5 shs Yellow Jacket at 695 per foot, s 30.
26 shs Chollar-Potosi at 395@385 per foot.
11shs Empire M & M Co. at 214 per sh.
27 shs Confidence at 72½@67 per share.
20 shs Baltimore American at 7 per share.
4 shs Alpha, C. S., at 300 per foot.
27 shs Belcher at 285@270 per foot.
12 shs Belcher at 26@270 per foot, s 30.
6 shs Belcher at 281 per foot, b 30
60 shs Overman at 63½@67 per sh.
22 shs Exchequer at 11@9 per share.
38 shs Bullion at 89@91 per share b 30.
10 shs Pacific Insurance at 168 per share.
$20,000 Legal Tender Notes at 76c.
14 shs Imperial at 157½@155 per share
23 shs Imperial at 156@140 per share, s 30
10 shs Imperial at 140 per share, s 60.

Mining Summary.

CALIFORNIA.

SISKIYOU.—The reader will find, in another column of to-day's issue, a very interesting letter on the mineral and other resources of Siskiyou county. We clip the following report of a new and remarkably rich discovery in this county from the Yreka *Union* of the 3d inst:

The newly discovered quartz mines in Scott Valley are situated in Cedar gulch, on the west side of Scott river, between Sugar creek and Squaw gulch, and about five miles in a northwest direction. The mines were first discovered by George Scolds, who immediately went to work extracting the rich gold-bearing quartz and packing it in flour sacks upon his back, across the hills to his cabin in the gulch next below. He was discovered at this by some miners working in the vicinity and, from his actions, thinking that he must have a "good thing," they watched him until he returned to his lode and found that he had struck a vein of the richest gold-bearing quartz that has ever been found in Northern California, or perhaps in the State. The vein can only be seen at the point where it was first found, in a small tributary of Cedar gulch, for the reason that the bed rock on both sides, and, in fact, throughout the whole gulch, is covered from two to forty feet in depth with earth. Scolds has only opened his lode about ten feet in length and from one to three feet in depth, and has taken out rock variously estimated by those who have seen it, to contain from four to six thousand dollars. The vein is only from two to six inches in width where it has been opened, but appears to be gradually widening as it goes down, and the rock will yield from three to ten thousand dollars to the ton, and some is still richer—being more than half pure gold. Scolds, to prevent his rock from being carried off by curious prospectors, has sluiced his prospect hole full of mud, while he has started in below the lode to bring up a drain that will tap it at about the depth of fifty feet, which will probably be completed in about a week, when the question whether the lode is extensive or not can be determined. Other parties are running tunnels on the line of the vein in anticipation of striking it.

SHASTA.—According to the *Courier*, the Potosi company, at Muletown, will have their mill running in two weeks. The Eureka company are prospecting their lodes—one called the Pettit, another the Eureka, and another the Mount Shasta—all within a half mile of the Potosi mill, and are getting splendid prospects, so far, finding rock like the Potosi, which all concede to be rich enough. From present appearances, Muletown will be a leading quartz mining camp in the county, contesting, if not carrying away, the laurels from French Gulch.

Mr. L. A. Kelly, at Lower Springs has put up one of Wheeler & Randall's prospecting mills, at the Union mill, which he proposes to run for prospecting purposes for the benefit of the public, hoping thereby to do something to develop the value of some of the numerous ledges in that vicinity. Attached to this mill is a set of pans and separators of proportionate dimensions, and all the appliances for testing gold or silver-bearing rock, concentrated tailings, sulphurets, etc. The mill and machinery is so arranged that the customer can witness and watch the entire operation. Mr. Kelly offers the use of his mill to the public, more for the purpose of inducing prospectors to open and develop their ledges, than with the view of any pecuniary profit to himself. Such mills are needed in every mining district on the coast, and whenever put in operation, can scarcely fail to be of good service. These mills have a capacity for working about two tons of rock per day.

PLUMAS.—We condense the following from the Quincy *Union:* The Howell quartz mill, at Round Valley, has stopped running for the present. It will start up again soon.

The Eureka quartz mills have been sold at Sheriff's sale, under execution. John Parrott, of San Francisco, was the purchaser.

At Twelve Mile Bar, water is plenty, and the miners are making good use of it. Droge, Kiser & Co., are running two sets of pipes, and are making a big "hole" in their claim. Richards & Ball's claim, in Rich Gulch, is paying well. Nipher's company is also getting good pay. Hallsted, Davis & Co., on Terry Hill, are working day and night, and will have an acre (more or less) of bed rock to clean up after the water gives out. Hyde & Ward, on Twelve Mile Bar, are working several hands, and their claim is paying well.

ALPINE.—According to the Silver Mountain *Bulletin* there are at this time eleven claims in that immediate vicinity in active operation, viz: Champion, General Grant, Illinois and California, Pennsylvania, Mountain, George Washington No. 1, Balaclava, Scandinavian, Buckeye No. 2 and Mary Frances. There are a number of other claims lately re-located, upon which work is being prosecuted. From present indications, we have a lively season ahead.

The Baloclavo company are still running in their ledge, and the ore is improving daily. From present appearances they will have milling ore by the first of May.

The Rippon, under the superintendence of of Mr. W. Brown, have their tunnel in 360 feet, and from the large volume of water which is running out of the same, they are supposed to be near their first ledge. It is to be hoped for the interests of the district, as well as for that of stockholders, that litigation has ceased, and that in the future the managers will attend to their legitimate business—mining.

The Champion company, located about two miles south of Silver Mountain on the Big Tree Road, is at work running a tunnel in the casing, parallel with the vein. They are in about seventy feet, and have cut the ledge, occasionally, but refuse to exhibit any of their rock, which, says the *Bulletin*, leads many to infer that they have a big thing.

PLACER.—A correspondent writes from Todd's Valley, under date of March 13th, as follows:—"Permit me to inform you that Geo. G. Barnes, Esq., editor of the *Morning Call*, and myself, saw cleaned up, in the Dardanelles Cañon, half a mile below the place where they are sluicing, five hundred ounces of amalgam, (eighty days' run). They use R. H. Dunniug's Patent Under-Current Sluice, or Gold Separator, for saving the fine particles of gold. This company have used the 'Under-Current' about five years. They say they would not be without them for anything. Out of their lower Under-Current, away down in the Cañon, they took out over $300. There are many new companies using the Under-Current in this section of country. They all say they are invaluable. The proprietor has recently appointed Mr. John Hemsley sole agent for Idaho and Montana for this invention.

"Hard cement is all the go here at present. There are four mills for crushing cement being erected between this place and Forest Hill, (distance from here to Forest Hill three miles), ten stamps each, with a capacity of ten stamps each more if needed. The Boston Company had five car-loads crushed at the Baltimore Company's mills one day last week, which paid $200. One-fourth of the Dewey claim, at Bath, was sold this week for $1,200—the whole claim is only 200 feet front. This mill has been running about two years; it is paying well. There is cement enough on this divide to last for fifty years to come."

The Dutch Flat *Enquirer* reports the discovery of some very rich quartz ledges, about fifteen miles from that place, between the American and Bear rivers. Several locations have been made, and the fortunate prospectors are exceedingly sanguine with regard to the value of the mines. They seem to be of opinion that the croppings are unsurpassed in richness by any in the State, and we only trust that all their hopes may be realized.

The Placer *Herald* is informed that the company owning the Layue silver claim have made arrangements to erect a mill this spring, and work the lead regularly. The ledge is well defined, and is said to yield handsomely by working process. Some of the successful Washoe operators have taken an interest in the company.

CALAVERAS.—The Copperopolis *Courier* speaks in glowing terms of the future prospects of Calaveras county. More attention is paid to gold mining than formerly. The copper mines of this county, although more valuable and extensive than any yet discovered elsewhere in the known world, cannot be said to be more valuable than the gold. They produce a hundred thousand tons per annum, or more, yet the gold mines of the county are destined to eclipse them in wealth. The *Courier* anticipates a lively time when the railroad is completed through Copperopolis to Mariposa, whither it should go.

The number of mining ditches in Calaveras county, according to the report of the Surveyor General, is fifty-eight; miles in length, 594; total value, $120,000. Calaveras ranks as the first county in the State in the number of ditches, second in value, and third in aggregate length.

The Keystone mine promises to yield largely the coming season. A large amount of ore has been taken out during the past month.

We condense the following from the Monitor *Gazette*:—A lot of ore from the Mullan lead sent to the Pioneer Mill for reduction, returned a most satisfactory result. Another test of ten tons was to be made.

The affairs of the Winchester company, both pecuniary and otherwise, are said to be flattering. The recent assessment has cleared up all debts, and the stock is now held by parties who will prove the value of their property at the least possible expense.

Work upon the Leviathan is suspended for the present, for reasons elsewhere given.

It is reported that a small lot of 100 tons of ore from the Morning Star has been crushed at the Yellow Jacket mill, and yielded at the rate of a fraction over $600 per ton.

An organization, under the name of the Gordon Company, having obtained title to the claim at the lower end of Main street, formerly known as the north extension of the Little Monster lode, have been busily engaged in opening the same this week. Some very fine specimens of silver bearing quartz have been exhibited from the prospect, taken from just beneath the surface.

NEVADA.—We note the following mining intelligence in the Nevada *Transcript* of March 8th:—Karney & Co., prospectors, have struck some rich rock on the third extension of the Star Spangled Banner ledge. The ground of these parties is located near where the lead crosses Little Deer creek. They have only sunk a short distance, but the rock taken out is filled with free gold and rich looking sulphurets. It is said that the discoverers of this *third extension* have been offered $25,000 for their discovery.

The mining operations in blue cement, in Little York township, have been attended with unusual success this season. Quite a number of mills have been started, and all are turning out large amounts of gold. On last Saturday, after one week's run, Nice & West cleaned up $6,000, and for six weeks the yield has not been less than $3,500 per week. Brown, Malloy & Co., Williams, Cozzens & Garber, have all been doing remarkably well.

We saw some rich rock from the Union ledge yesterday. It was filled with rich looking sulphurets. We understand that the company will soon commence to sink from a new level. They are now down with the incline about 200 feet, and have a large amount of rock within reach.

According to the *Gazette*, the Pennsylvania company cleaned up from about 40 tons of rock at the rate of thirty dollars a ton. Much of the rock crushed was taken out while running a tunnel, and was considerably mixed with cab and granite.

The Grass Valley *National* says that the Heuston Hill company still continue to pay the enterprising owners large dividends. Thirty-four and a-half loads of quartz yielded $202.50 per load, a few days ago. The owners of the ledge now are A. H. Heuston, Captain S. W. Lee, S. D. Bosworth, Smith Brothers, Joseph Woodworth, and the Coleman Brothers. Capt S. W. Lee has purchased the interest of Wm. H. Rodda, one-sixteenth, and is now the fortunate possesaor of one-eighth of the above valuable mine. The interests now pay monthly dividends of one thousand dollars, and in a short time will be up to fifteen hundred dollars. The company have in their employ one hundred men about the mill and mine.

The San Andreas *Register* says that Mr. Armbruster of Petersburg, has exhibited some rock which he obtained from the claim called the Gold Hunter quartz claim, situated in Salt Spring Valley, literally filled with gold. He says the claim is about to be sold to a party from San Francisco, who will proceed to open it.

AMADOR.—According to the Amador *Dispatch*, four quartz mills are now in operation at Angel's Camp, and three new 20-stamp mills are about to be constructed.

Relative to the Copper prospects of the county, the *Dispatch* says: "We took a ride a few days ago through the copper regions of this county, and judging from the quality and quantity of ore that is being taken out, we are of the opinion that the day is not far distant when "little Amador" will be acknowledged ahead of any other county in the State in the production of copper as well as gold."

CONTRA COSTA.—A new interest appears to have recently been awakened with regard to the copper mines of Mount Diablo. Quite a number of new and promising ones have been located within the past two months, and old and abandoned claims re-located by new parties, who appear determined to give them a more thorough examination.

According to the Contra Costa *Gazette*, the Keokuk has been steadily worked ever since its location, and quite recently a well defined vein has been struck, showing a considerable quantity of good ore. Of the claims recently located, favorable reports are heard from the Tecumseh, the Reconstruction, the Nucleus, and the Wahhookon. The lode of the latter is clearly defined. A prospecting tunnel has developed a good body of ore, one ton of which has been sent to this city, sampled, assayed, and proved to be of a quality that will pay handsomely to the mine. Work upon this mine is conducted under the superintendence of Richard Williams, Esq., a gentleman of much practical experience in mining.

MARIPOSA.—The following from the Mariposa *Gazette*, may serve as a sample of extracts that might be made from the local papers of almost any mining district in the State. They all speak in the same encouraging terms. "The work on the Bear River mines is progressing finely. The rich ore is being taken out in large quantities, and a handsome profit is realized. There has never been a time since the opening of these mines when richer or better paying rock has been found. A large number of men are now at work, and business under the careful management of the present proprietors is progressing favorably, and Bear Valley is now more lively, with a prospect of continuing so for the present. Quartz is not quite 'played out,' and we are pleased to note this as one of the indications of thriving times this season."

ESMERALDA.

The Silver Peak District at this time bids fair to present, at an early day, a scene of busy activity. The mountains are filled with miners, and that region presents a wide field for the enterprising prospector. The ledges, generally, present bold outcrops, and many of them yield handsome prospects. The Silver Peak Company are going to erect a forty-stamp mill, with sufficient additional power to run the machinery of their old mill. This is the right kind of enterprise, and speaks well for the district.

The editor of the Esmeralda *Union* says that Mr. Mack, of Aurora, has shown him some specimens of copper ore, which were taken from his mine, about three miles from Castle Peak, in Mono county, Cal., which will compare with any copper ore we have seen. Among the selections are some fine pieces of native copper. The company are still prospecting and working their ledge, and feel confident that an immense amount of good paying ore can be obtained.

HUMBOLDT.

The *Register* says that Mr. Fall has again commenced work on the Chameleon claim. Float ore from the surface paid about $160 to the ton, silver. If Fall finds the ledge of good size, and composed of such stuff, it will be a capital mine, as it is advantageously situated for working.

The Monroe Series continue to turn out amazingly rich quartz, appearing to improve in width and richness at the same time. We are told that the workmen are taking out quartz now, regularly, which will yield $1,000 to the ton, gold. Down a little more than eighty feet.

Some two months ago, a small lot of ore from the Jersey ledge was worked in Stevenson's mill, and the crude bullion taken to Virginia. It was worth, in that shape, a trifle over fifty cents the ounce. Some of the papers got it fifty cents the pound, and the item now comes back from the New York papers fifty cents a pound.

VIRGINIA CITY AND VICINITY.

Peavine district is reported as attracting considerable attention, and when the railroad extends that far, it is expected that large quantities of copper ore will be freighted down, and will return rich dividends to the miners, who as yet have been laboring under great disadvantages.

The Virginia *Enterprise* says that Messrs. Hurst and Fay have just arrived in Dayton with about one ton of ore from a new district located some fifty miles southeast of Columbus district. The ore will be worked at Carpenter's mill, and is said to be extraordinary rich. A small lot brought in some time since from the same lead yielded by mill process $740. This last lot is supposed to be still richer. The country about the mines is barren in the extreme sense of the word.

There is a rumor abroad that something pretty good has lately been struck in the Hale & Norcross in addition to the strike chronicled a short time since.

An addition to the amalgamating capacity of four new pans has lately been made in the Central mill. None but the richest ores found upon the Comstock lead are worked in this mill, yet it has never lacked ore for crushing. The Freiberg process—the one used—is too expensive for common ores.

The *Enterprise* says that during the past week or two the bullion shipments from the State of Nevada, have been larger than ever before in its history. The mines are yielding an abundance of rich ores—they are "giving out" in the lower levels just as we desire to see them continue to do.

A WRITER in an exchange, whose plums had suffered by the *curculio*, cut a sheep skin in wool, into strips, dipped into petroleum, nailed them about the trees two feet from the ground, and had nice ripe fruit.

A DAY AT THE LINCOLN SCHOOL.

We had the pleasure, on the 5th inst., of visiting the Lincoln School, located on Fifth street, near Market; and a pleasanter or more suggestive visit it has seldom been our fortune to enjoy. This School is under the direction of Mr. I. G. Hoitt, as Principal, aided by two male and fourteen female assistants. The School is devoted exclusively to boys and the number of pupils enrolled is 906, divided into sixteen classes.

Each class is divided into two divisions, according to the proficiency of the pupils in their studies. Exercises in gymnastics are given daily in several of the classes.

The new school house yard is divided into two portions, smoothly planked and arranged with benches and sheds upon their sides; the latter as a shelter from the sun and rain. At the hour of opening the school the boys are all required to assemble in the yards and at a signal, each class, headed by its Captain and two Lieutenants, form in line, arranged according to the order of their station in the class-room. By orders subsequently given in numbers, the classes dress, 'bout face, form into general line, enter the house, and file off to their respective rooms, where the several teachers are at their desks to receive each his or her class. The classes file into the class-rooms, moving in regular succession to their seats, where all remain standing until the order is given to be seated. In this manner the entire school of 900 scholars is brought into the house and seated in a very few minutes and without the least disorder, and with a stillness which is most remarkable. The same order is observed at noon and afternoon recess, also in leaving the rooms. The management of the boys in the yards, their arrangement and march to their class-rooms is under the especial direction of the two male Assistants, Messrs. Prior and Holbrook. This entire arrangement has been devised by Hoitt, the Principal, and is one of the most interesting features connected with the school. The same system has been adopted, to a greater or less extent, in most of the Common Schools in the city. The boys appear to enter into it with zest and interest, and its effect upon the general order and discipline of the school is most marked and beneficial.

Several of the teachers have introduced various pleasing and profitable exercises. Miss Fowler, of the Fifth Class, teaches Natural History in connection with the reading lessons, illustrated with drawings upon the blackboard. Some of the drawings executed by the pupils are of a character exceedingly creditable to even proficients in this interesting art. Such exercises are highly beneficial in training the minds of the pupils to a love of the beautiful and useful in nature.

Mr. Hoitt, the Principal, has recently introduced a system of monthly examinations (written) into the standing and progress of the classes, which promises to be productive of much good. This examination was in progress in some of the classes during our visit. It is intended, in part, to furnish the Principal with reliable data of the progress of the various classes which are placed under separate teachers. It has already created quite a marked and wholesome rivalry, among both teachers and pupils, in parallel grades.

By the politeness and attention of Mr. Hoitt, we were shown over the entire building, visiting each separate class, and making the acquaintance of all the teachers. The utmost order and attention are everywhere apparent. In some of the lower grade classes, especially, we were most particularly struck with this characteristic. It was not a constrained submission, brought about by fear; but each individual pupil evidently felt a personal interest, and took an active part in bringing about a common result. There was none of that apparent weariness or lassitude so often observed in schools. Bright and intelligent faces everywhere beamed with joy, giving evidence that they were deeply interested in their tasks. The teachers, both Principal and assistants, were all easy and familiar with their pupils; giving unmistakable evidence that their hearts as well as heads were in the work before them. It was no wonder that the Principal, in showing us about, expressed himself so freely in regard to the confidence he reposed in his assistants.

Miss Swain, Miss Hitchins, Miss Bunker and Miss Kimball, each gratified us with exhibitions of their respective classes in drill and calisthenics, accompanied with singing, humming and whistling. The boys went through their exercises with a spirit and *vim* which, when in the upper rooms, made the solid edifice tremble, almost as though it were being shaken with an earthquake. Such exercises cannot but be highly beneficial to the health and development of the pupils, while they add interest to, and give zest and variety to the ordinary routine of study.

While in Mr. Hoitt's room we were permitted to examine the Historical Register of the school, which is kept in a ponderous tome, where the names of all the children who enter the school are enrolled; and where the age, place of nativity, residence, time of entering and leaving the school, the occupation of their parents, and general standing as to character, studies, etc., of each pupil is put upon permanent record.

We spent the chief portion of the hours of our visit in Mr. Hoitt's room with the 1st class. Mrs. Hoitt appears to have the principal management of this class, the attention of Mr. Hoitt being so often called to other parts of the house, in looking after his extensive charge, that it would be utterly impossible for him to confine himself to any one class.

We would take this occasion to mention that Mr. H. is evidently a hard worker; and that his whole mind, both in and out of the school, appears to be devoted to his profession. The position of a teacher having from nine hundred to a thousand pupils under his charge is no ordinary one; especially when the duties of that position are faithfully performed. That the Principal of the Lincoln School comes fully up to the highest standard in his profession, no one capable of forming a correct judgment, will doubt, who will take the trouble to visit that school and spend the day there as we have done. Although two days would be quite short time enough to form anything like an intimate acquaintance with the institution yet we saw fully enough in one day to satisfy us that it was a model school. If we had the time to spare, we could spend a week profitably and pleasantly, in the various rooms. As we have already intimated, we had time to observe closely the exercises of the 1st class only. They were conducted chiefly by Mrs. Hoitt, and, while we were present, consisted of spelling, geography and grammar. The spelling was very prompt and correct. It was conducted both orally and in writing. The writing exercises serves the double purpose of instruction in both writing and spelling. There are many scholars who can spell well orally, who are very deficient when it comes to writing. The writing exercise, we consider decidedly the most practically useful. We are not advised as to whether it is generally adopted in the public schools in this city. At all events it should be. There is nothing that operates so much to the disadvantage of a business man, in his correspondence, as bad spelling. Indifferent penmanship and even inelegant composition is more readily overlooked than bad spelling. Haste and a general lack of literary taste in a business man will excuse the two former; but there is no excuse for the latter. Every boy and every girl should know how to spell correctly; and they should be accustomed in school to written exercises, in that primary and useful branch of education. Boys and girls remember this, and don't neglect your spelling lessons. It is a dry and uninteresting study; but if you neglect it when young, you will be sure to regret it when old; and a person in years can more easily attain almost any other branch of common school education than spelling.

The geography recitations of Mrs. Hoitt's class were very fair. The particular exercises while we were present related to the economical and historical departments of that branch of study—the productions, natural and artificial advantages, political organizations, and the rise and origin of the different nations, whose territories were under consideration. It appeared to be the aim of the teacher to see that the pupils had formed a correct and definite idea of the subject to which their attention was called, rather than to require a strict adherence to the text of the books which had been placed before them. To this end they were encouraged to give the facts called for in their own language. This practice is a good one. Recitation is a mere effort of the memory without calling to aid the judgment to understand or comprehend what is repeated. Information so obtained is of but little practical value, and is usually soon forgotten. The manner of teaching adopted by Mrs. Hoitt is well suited to both interest the mind of the pupil, and to fix in his memory the lessons to which his attention is directed.

We were particularly pleased with the analytical character of the grammar exercise. The facility with which the pupils, generally analysed sentences, was especially noticeable, and evinced a thorough understanding of the principles which they were called upon to apply. The requirement of original examples, not found in the text books, called into full exercise the capacity and imagination of the pupil. Indeed the whole course of instruction adopted at this school seems to tend, in the highest possible degree to the fullest development of the mental faculties of the pupils.

Biennial School Report.—We have received the Biennial Report for 1865–6, of Mr. Swett, the Superintendent of Public Instruction. It is a very interesting and comprehensive document, comprising a volume of over 400 pages. In addition to the usual statistical information, the volume contains a large amount of valuable and suggestive matter in relation to the Schools, and Education generally. It is also illustrated with views of a number of the most prominent educational establishments, both public and private, in various parts of the State.

The Great Suit against the Union Mine at Copperopolis.—The San Francisco correspondent of the *Territorial Enterprise* gives the following particulars with regard to the great suit now pending against the Union Copper Mine:

The Union Copper Mine is estimated to be worth eight or ten millions of dollars—more than the Gould & Curry was valued at in its palmiest days. But of course prosperity will always produce litigation for a mine, and a thirteenth of the Union is now in Court, as you are already aware. From what I can learn, there is more law than equity on the side of the parties who have brought the suit. This is the story: Mr. Reed came out here several years ago, leaving a wife and daughter in Massachusetts. His wife got a divorce from him during his absence, and was awarded custody of the child. When the Union mine was located, Reed, notwithstanding his wife's uncomplimentary conduct, put the names of herself and her daughter down for full claims (a thirteenth each), though, strictly speaking, he had no right, under the mining laws, to locate women, and especially absent ones, in a mine; but when these claims were likely to be jumped, he transferred them to male friends of his, who held them for him. The mine became valuable, and the late Mrs. Reed and daughter came out to California to look after it. At Mrs. Reed's request, the Court transferred the guardianship of the child to Mr. Reed, and then, also at her request, he sold their two shares, which were standing in the names of Reed's friends, for $20,000, to Messrs. Hardy & Meader, and gave the lady her $10,000, and so secured the daughter's $10,000 that it could be delivered to her when she should become of age. This was all very kind and very generous on the part of Mr. Reed, but the lawyers, in smelling around lately, discover the fact that the daughter's share was sold simply at the request of the mother, and that Reed had neglected to secure himself with the formality of an order of the probate court, which was necessary to render his sale of his ward's property legal and valid. So now the daughter sues her father (who still owns in the Union) for a full thirteenth of the great mine, and refuses to recognize the former sale. If the daughter wins the suit, her lawyers, Messrs. Clark & Carpenter, are to get one half. This is hard upon Reed, considering all his generosity. It ought to teach him never to be generous again to anybody.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

Office of the Mining and Scientific Press—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely confide his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the Mining and Scientific Press. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, consulting with the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensues. If the application is rejected we conduct such investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportioned to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unequalled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the success of our application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make it special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos	$10
On every application for a design, for seven years	15
On every application for a design, for fourteen years	30
On every application for a patent, for seventeen years	15
On every caveat	10
On issuing each original patent	20
On filing a disclaimer	10
On every application for re-issue	30
On every additional patent granted on a re-issue	30
On every application for an extension	50
On the grant of every extension	50
On appeals to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C.	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No, 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

O. W. H. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. Elwin Davis, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:
Saturday Morning, Mar. 17, 1866.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

PETROLEUM MATTERS.—We understand that the pump is now at regular work in the Lexington well; all the strata of oil rock which have been passed through by the well, have been opened, by cutting the tubing at the proper points to admit of the seepage of oil into the well. As soon as the lateral pressure from the column of water in the well upon the several oil stratas has been removed by the pump, we may expect to learn the full capacity of this well for producing oil. We learn that quite a considerable quantity of oil is even now being raised; sufficient to warrant quite flattering expectations in the minds of the shareholders. We trust their fullest anticipations may be realized.

The new retorts recently erected at the Petroleum works, six miles north of Santa Cruz, are working well, turning out over 100 gallons of crude oil per day. The refinery is only run three days in the week. There was a cave in the main body of the material a few days since, removing a mass of oil-sand of over 100 tons in weight, the richest yet worked; after the cave a large amount of gas escaped from the cracks and fissures. Since the late rains several new indications have been discovered, showing rich signs of petroleum. It is now confidently believed that a stream of flowing oil might be struck by boring deep enough, in the valley below the works.

The Wilmington *Journal* says: "The Los Angeles Pioneer Oil Company's well is 330 feet deep; it sends forth daily about 1,500 barrels of water, with five or six gallons of oil. Gas issues from it, resembling the noted burning springs of Western Virginia, sufficient to light several large hotels. Water was struck at the depth of 310 feet in shale rock, which continued for ten feet, when sandstone was again found."

THE RAIN FALL.—The rain fall in this city, from September 1st, 1865, to March 1st, 1866, has been 19.49 inches. The fall in Nevada for the same period was 39.92 inches. This is about the usual proportion of rain between the sea coast, at San Francisco, and the middle western slope of the Sierra Nevadas.

THE MINERAL LANDS IN CONGRESS.

The Senate Committee on Public Lands have decided to report adversely to Sherman's (Senate) Bill. Senator Stewart, of Nevada, has been selected to draw up the report. That report will doubtless be all that the strongest opponents of the sale of the mineral lands could desire. Four out of nine of the Committee on Public Lands in the House have reported in favor of Julian's (House) Bill, for the survey and sale of the mineral lands. McRuer, of California, who is one of the minority, will submit a minority report.

In some respects the bills of Sherman and Julian differ; but both provide for a radical change in the policy of the Government heretofore adopted in dealing with the mineral lands of the Pacific Sates and Territories. Julian's Bill is generally considered to be the least objectionable, being more simple in its provisions, and aiming directly at the single object of granting absolute titles to the possessors, and such as may subsequently become, under that hill, owners of mineral lands.

The mining interest has two powerful friends in Congress, who are watching with eagle eyes the attempt being made to force upon the country these two bills of abominations. When the proper time comes, Mr. Stewart of the Senate, and Mr. McRuer of the House, aided by the entire Pacific delegation, in both branches of Congress, will give them such a ventilation as will put a pretty effectual quietus on this and all other attempts of mere politicians to push through Congress, under the mistaken apprehension of doing a public good, a measure, the legitimate result of which would be the creation of a cloud of overshadowing monopolies, that would result in the absolute ruin of the mining prospects of the Pacific coast, and eventually end in financial disaster to Eastern commercial enterprise, and ruin to our national currency, by the closing up, to a great extent, of the present supply of precious metals, to which, more than to anything else, we must look for future commercial prosperity, and an early resumption of specie payments. It is useless to speak to Californians of the utter impossibility of carrying out the letter of the project proposed in both of the bills now under discussion. The bills are as impracticable as they are impolitic. By the time this discussion is over with, in Congress, the wants and condition of the miners and our mineral interests will be better understood than they have ever been heretofore.

The feeling in behalf of a wise and liberal policy on the part of the Government, in this matter, is rapidly gaining ground, in both branches of Congress, and we may feel confident in the assurance that no bill for the sale of the mineral lands can possibly become a law during the present session of Congress. But, as "eternal vigilance is the price of liberty," our citizens have wisely determined to let our delegation in Congress know that we are not indifferent to the perils by which we are surrounded, and at the same time lend a helping hand to those who are doing valiant service for us in the halls of the National Legislature. Accordingly, a

PUBLIC MEETING

Of all persons interested in mines and mining was held on Thursday afternoon last at the Merchant's Exchange, in this city, for the purpose of considering and taking action in this matter. Among those present were Alpheus Bull, President of the Savage and Gould & Curry mines; Solomon Hydenfeldt, C. P. Lolor, W. H. V. Cronise, R. G. Sneath, Mr. Wand, E. B. Holmes, and others. Mr. Sneath was called to the chair, and Mr. Holmes appointed Secretary. After a general and informal interchange of opinion it was decided to appoint a committee to draft resolutions expressive of the sentiments of the people of the Pacific coast, touching the subject of the disposal of the mineral lands by Government—Committee to report at an adjourned meeting to be held on Tuesday afternoon of next week. Messrs. Bull, Cronise and Hydenfeldt were appointed a Committee with power to add nine other gentlemen, making the Committee to consist of twelve members. The meeting adjourned.

We trust there will be a full attendance of those interested at the next meeting, to show that we are on the alert, and see that no advantage is lost by any appearance of supineness on the part of those most interested. Emphatic action at the present time will greatly encourage our friends in Congress and exert an important influence on many who have hitherto favored a sale of the mineral lands, through a mistaken apprehension of what was for the public good.

GAS IN A QUARTZ MINE.

Some weeks since, we made a brief notice of an irruption of noxious gas into the Leviathan tunnel, near Monitor, Alpine county, and in such quantity as to drive the workmen from the tunnel. The *Gazette* of the 9th instant contains the following item of further information with regard to the phenomenon:

It was thought the unwholsome and offensive gas which prevented work in the Leviethan tunnel would be obviated by the introduction of pipe and the use of a fire-blast, but we are sorry to say the experiment was tried last week and proved unsuccessful. The workmen found improvement sufficient to enable them to breathe comparatively well, and pushed the tunnel ahead several feet, but were compelled to abandon the undertaking by reason of the destructive effect on the eyes. The use of a large bellows in place of the blast was also tried, but still the eyes were pained beyond endurance.

Query.—What is the cause? and what the remedy?

The gas usually encountered in mines is sulphureted hydrogen, a highly inflammable substance. Carbonic acid gas is sometimes met with, in which neither flame nor life can exist. It is very seldom that either of these gases are met with in any other than coal mines, where the former, especially, is very often encountered, and is produced from the decomposition of organic substances. As it is seldom that organic substances are met with in mines of silver or gold, we must attribute the formation of such gases there to other causes than the decay of vegetable matter.

In the case above alluded to, the gas encountered was probably a sulphureted hydrogen, produced by the decomposition of iron pyrites and water. It was, perhaps, mixed with a small quantity of sulphurous acid gas, which latter, if present in any considerable quantity, would cause a smarting sensation in the eyes and a tingling in the throat, provoking a hacking cough. The smell of sulphureted hydrogen is exceedingly nauseating and oppressive, as described by the *Gazette*. It is more than probable that on reaching a greater depth, or near to the point at which this chemical action is taking place, hot water will be encountered, as in the Ophir mine, about a year ago. Had that mine not been thoroughly ventilated, the workmen there would doubtless have observed the presence of the same kind of gas as that met with in the Leviathan tunnel. The only way to get rid of it is to arrange for a thorough ventilation of the tunnel.

MINERS AND ASSAYERS in want of assayers' material will do well to call upon John Taylor & Co., of this city, importers and dealers in such material. That firm keeps constantly on hand a large assortment of balances, furnaces, crucibles, gold scales, chemical glassware of every description, etc. See their advertisment in another column.

YUBA GAP WAGON ROAD.—According to the returns, as published in the Downieville *Messenger*, the proposition to aid the Yuba Gap Wagon Road, by scrip from that county, has been defeated by a small majority.

THE SILVER PEAK MINES, which were discovered only about one year since, have already yielded over $100,000 of bullion. A shipment of 1,200 pounds of bullion was lately received in this city, at one time.

A PEARL, valued at five thousand dollars, was recently shown the editor of the Panama *Star and Herald*, taken from the Pearl Islands in the Bay of Panama.

[Written for the Mining and Scientific Press.]

From Sacramento and Placer Counties.

BY OUR TRAVELING CORRESPONDENT.

MESSRS. EDITORS:—As it is raining to-day, and disagreeable traveling, I will while away an hour in writing up my notes from Folsom to this place. The first point reached, of any interest, was Mormon Island, one of the oldest mining camps in California—the second one discovered, I believe—which continued for a time to pour its streams of golden treasure into the City of the Saints, from whom it derived its name. The Island proper was a rich bed of gravel, in the midst of the South Fork of the American River, now nearly worked out and given over to Chinamen.

Very little is being done in the way of mining immediately in the village, although the impressions prevail that there are very rich deposits of gold near at hand, requiring capital and enterprise to bring them out, and there is a long and hopeful future to the place, when they shall have driven their tunnels in all directions into the hillsides around, giving employment for labor and capital for at least a generation.

The Natoma Ditch Company, with a capital of $300,000, have purchased twenty-eight claims of 30 feet front and 100 deep, in Blue Ravine, just above the village, in Red Bank District. They have a tunnel, saying nothing of its branches from either side, full 2,500 feet in length, costing in round numbers about $30,000, which they expect to extend the ensuing year 1,700 feet farther, through which a very large portion of what is believed to be valuable ground, will be reached. This ravine has paid heretofore $7 or $8 to the hand, and it is the belief of the Agent of the Company here, that it will pay well throughout its whole extent, perhaps on an average of $6 to the man.

Many in the neighborhood have abandoned mining, and are now engaged in extracting the precious metals from the soil, in the form of fruit and wine, large quantities, and of first-rate quality, being produced from year to year. Mr. Bughee informed me that his vineyard turned out last season 8,000 gallons of wine, worth $1.50 per gallon. Pardon me for this digression, for I was nearly as much *excited* by the wine of this locality, and felt myself nearly as rich, as if I had just discovered another Ophir. In the vicinity of the Rowland Hill House Messrs. Eels & Co. were found, sinking a shaft in search of copper, good indications of which are seen for miles both north and south of where they are at work. A large amount of prospecting has been done to discover good copper ore in this region, but thus far without satisfactory results, and all, with the above exception, have ceased work. While these gentlemen have much to encourage them, their perseverance deserves a rich reward. Success to them!

As to this place, I see little to hope for in the way of mining, unless good quartz lodes should be discovered, for surface diggings are becoming more and more unprofitable. I give first impressions. Should anything be seen or learned during my stay here to alter my views, you shall hear from me again. In the meantime, I remain, as ever, your faithful

PROSPECTOR.

Salmon Falls, March 8th, 1866.

MOORE'S GRINDERS.—The following is an extract of a letter from F. O. Nelson, Superintendent of the Victor Gold Mine Company, at Rocky Bar, Idaho Territory, under date February 14th, 1866. The grinder and amalgamator referred to is that patented by Mr. Albert Moore, of this city. Mr. Nelson writes of this machine as follows:—

"Your grinders and amalgamators work finely, and are all that one could wish them to be. With five stamps and two grinders I crush and amalgamate twenty to twenty-five tons per day, (twenty-four hours). Col. Ruckle told me that he should order some of them for his mill on Powder River. [The colonel has since handed in his order to Mr. Moore.—EDS. PRESS.] Also Mr. W. Waddingham, Superintendent of the Waddingham Mining Company, at this place, will want them. [Mr. Waddingham's order for two of the machines was received some time since. They were promptly forwarded, but are now snow-bound on Blue Mountain, *en route* for the mill.—EDS. PRESS.] There are others who will order these grinders this spring. Parties in New York are writing me, and want to know how I like Moore's Grinders, and my answer to them is, that they are the best grinder and amalgamator in use, and I think, ere long, you will sell a great many for this territory, as well as Montana.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, March 17, 1866.

Money continues abundant, and there is no difficulty in negotiating anything ordinarily acceptable in Bank. The demand upon Mining Stock collaterals is active, and certain shares are in more favor with capitalists than for months past, as a basis for loans on short time. Rates of interest still rule at 1@1¼ ₱ cent. per month in Bank, and at 1¼@1½ for outside transactions.

The business of the Board during the week has been much heavier than usual. Some leading stocks have improved, and are firmly held at the advance, while others were exceedingly buoyant at fluctuating rates, and closed with less strength than at the date of our last report. A number of claims are now yielding largely, and their present condition is such as to insure the belief that they are not likely to become less productive for some time to come. One Company has declared its first dividend; several are out of debt, with a reserve on hand, and others are preparing to accumulate a fund for stockholders. More economy, and better judgment now seems to be used in the administration of the affairs of these Companies, and the good results of such a policy will soon be apparent in increased profits. A number of low-priced Stocks have been active this week, and formed quite a feature of the daily transactions.

Crown Point has met with small sales; opening at $1,350, receding to $1,290, rallying to $1,300, then selling at $1,175—ex dividend of $50 per foot—and closing yesterday at $1,150 bid. After the payment of a dividend for the month of February, a surplus of $15,000 was carried forward out of the net earnings for that period. Since the 1st instant, the receipts of Bullion have exceeded $40,000, and during the week ending the 9th, 700 tons of ore were extracted from the mine. In running south, 23 feet from the north line on the lower level, an improvement has taken place, and the incline from that level now down 27 feet (60 feet from the north line), is also looking well. In drifting into the extreme west deposit at a depth of 300 feet, it is said that ore worth some $40 per ton has been disclosed. Some 25 tons of first-class ores have been delivered to the Central Mill recently.

Savage was dealt in to the extent of 150 feet, rising from $1,050 to $1,100, receding to $1,015, rallying to $1,020, then selling at $960, and closing at $990. This mine is now producing an average of 70 tons per day, chiefly from the upper levels. It is said that the old or main working shaft will be connected with the drift from the bottom of the winze in the sixth level, on or about the 1st of April, and then be ready for the extraction of ores at that depth. In the openings already made on the sixth station, a body of ore 20 feet wide and 90 feet in length, has been developed without having reached its limits. Receipts of Bullion during the first half of this month, amounted to some $70,000, and the Company are now said to be out of debt, excluding the monthly intallments due upon the Minnesota Mill. The average yield of 2,400 tons of second-class ore last month, was $50.22 per ton, and 100 tons first-class ore produced $300 per ton.

Hale & Norcross rose from $1,050 to $1,150, receded to $1,010, then sold at $1,090, and was dealt in yesterday at $1,000. The ore product of the mine this month will probably amount to 2,000 tons, worth $40 to $45 per ton. The aggregate yield of Bullion last month exceeded $49,000, and since the 1st instant the receipts have amounted to $23,000.

Gould & Curry has been dull and inactive, and trifling sales were made at $1,050, seller 15, closing at $975 bid. The only recent change to note has been the tapping of a considerable body of water in the north branch drift from the second station, which is supposed to indicate the close proximity of a large seam of quartz. Receipts of Bullion from the 1st to 9th instant, inclusive, amounted to $72,500.

Yellow Jacket has attracted considerable attention, and 385 feet were sold; suddenly advancing from $550 to $700, dropping to $640, rallying to $680, receding to $525, seller 30, advancing to $600, declining to $575, then selling at $755—assessment of $150 delinquent, and changing hands on Friday at $690@$695. The receipts of this Company were as follows for the month of February: From 3,056 tons of ores crushed, $84,210 88; ores sold, $906.07; Morgan Mill credit balance, $11,426 10; other sources, $1,568 14: total, $98,-311 19. The following disbursements were made: For labor account and supplies, 21,274 15; No. 2 South Hoisting Works, $12,-668 59; Legal expenses, Real Estate, etc., $3,294 44; crushing and hauling ores, $45,913 83; other expenses, $14,476 14: total, $98,-627 15. The indebtedness of the Company January 31st, was $175,-622 91, and on the 28th of February, it amounted to $175,938 87. Of the 2,377 tons of ore worked at the Company's Mills during the month of February, 2,032 tons were treated at the Morgan Mill—1,302 tons second-class averaging $32.35, and 730 tons third-class yielding $15 per ton. The Illinois Mill crushed 345 tons, producing $29.13 per ton. The west drift from the south shaft has now reached a promising body of ore, the porphyritic formation having disappeared. This deposit is thought to be identical with the west stratum of the Crown Point Company.

Ophir has been exceedingly active, and 483 feet were dealt in, receding from $760 to $640, rallying to $700, declining to $600, again rallying to $700, dropping to $650, and selling yesterday at $620@$635. The north end of the newly-discovered deposit in the ninth gallery of the South Mine, is said to look favorable for a large body. The ore found on the east side of the vein assays $150@$180 per ton, and the west portion from $39 to $85. Drifting west has been suspended for the present, but work will be continued north and south on the lode. Some 700 tons of ore have already been hoisted to the surface from that locality—an average of some 60 tons per day for the past two weeks. The total indebtedness of the Company at this time is about $70,000.

Chollar-Potosi has been well maintained, advancing from $390 to $410, buyer 30, receeding to 395, then selling at $392@385, and closing yesterday at $390. During the week ending March 9th, 905¾ tons of ore were sent to custom mills. The Grass Valley Station has improved recently, and is now producing from 8 to 10 tons of ore daily. The Bajazette ground shows considerable deterioration, and is thought to be nearly worked out. Stope over head of Incline is looking very well, from which 50@60 tons per day are taken. There is no change in the old works of the Chollar.

Belcher is in rather better favor, and some 200 feet were ready, advancing from $295 to $390, receding to $290, and selling yesterday at $270. Alpha met with small sales at $310@300, closing at $290 bid.

Empire Mill and Mining company dropped from $235 to 200, rose to $240, declined to $202½, advanced to $215, then sold at $214, and closed at about $214. The recent fire in the drift, from the 1st or 245-feet Station, did but slight damage to the shaft, and the necessary repairs will soon be made—meanwhile (as for some time past), ores will be hoisted through the Eclipse Shaft. Both the company's mills are running up to full time.

Imperial rose from $170 to $180, buyer 30, receded to $159, then sold at $157½@143. During the quarter ending February 28th, 9,796 tons of ore were reduced, producing $231,211.38 ($23.61 per ton); and the receipts from other sources, including premium on bullion bills discounted, amounted to $8,786.78, making an aggregate of $239,-998.16. The company's disbursements for the same period were as follows: Milling expenses, $76,567.50; Mining do., $40,659.31; Over drafts, $13,764.66; Fedoral, State, and County Tax, $14,070.95; New Shaft, $8,599.75; Properly purchased and interest paid, $1,762.50; Bills payable, $51,000; Cash and credits in favor of company, $33,-573.49—total. $239,998.16. Their debt at the close of the quarter amounted to $4,000, maturing March 28th, which left an actual surplus of $29,573.49. The first "clean-up" this month is lighter than usual, and amounted to less than $9.000.

The aggregate recorded sales of Stocks, since Saturday last, amounted to $1,221,762 50.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 77	$ 77½
Gov. Legal Tender Notes	76	76¼
State Bonds, 7 ₱ cent	85	86
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	67	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	53	60
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	60	65
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	75	78
California Navigation Co	55	57
State Telegraph Stock	32	35
San Francisco Gas Co	..	..
Sacramento Gas Co	..	75
Spring Valley Water Co	60	80½
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	47	40
Central Railroad Co	..	65
North Beach and Mission	48	49
MINING STOCKS.		
Ophir	$ 625	$ 630
Gould & Curry	975	1025
Empire M. & M. Co	214	215
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	960	965
Chollar-Potosi	382	385
Hale & Norcross	1010	1075
White & Murphy	....	....
Sierra Nevada	..	10
Yellow Jacket	690	700
Overman	87	88
Cedar Hill Tunnel	....	....
Wide West	....	10
Crown Point	1175	1200
Antelope	....	....
Emeralda	1	5
Ætna	....	....
Real del Monte	....	15
Bullion, G. H	89	90
Buckeye	....	....
Dick Sides	....	....
Imperial	150	155
Alpha	300	305

Its correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco. [Nye County News.

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 50 @ 7 00
Do Superfine	6 50 @ 6 75
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	2 00 @ 2 15
Oats, choice, ₱ 100 lb	2 00 @ 2 15
Barley, ₱ 100 lb	95 @ 1 00
Beans, ₱ 100 lb	4 50 @ 5 50
Potatoes, ₱ 100 lb	1 05 @ 1 25
Hay, ₱ ton	10 00 @ 16 00
Live Oak Wood, ₱ cord	8 00 @ 10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½c@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ 9
Hogs, dressed, ₱ lb	12 @ 13
Groceries, Etc.	
Sugar, crushed, ₱ lb	16 @ —
Do China	10 @ 12½
Coffee, Costa Rica, ₱ lb	25 @ —
Do Rio	24 @ 25
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	8 @ 10
China do	7 @ 8
Coal Oil, ₱ gal	85 @ 1 00
Candles, ₱ lb	24 @ 25
Ranch Butter, ₱ lb	40 @ 45
Isthmus do	35 @ 45
Cheese, California, ₱ lb	20 @ 28
Eggs, ₱ doz	35 @ —
Lard, ₱ lb	22 @ —
Ham and Bacon, ₱ lb	25 @ —
Shoulders	20 @ 22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45@ 55
do pickled ₱ lb	—@ —
do Oregon	35@ 40
do New York, ₱ lb	60@ —
Cheese, ₱ lb	25@ 35
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	40@ —
Lard, ₱ lb	25@ —
Hams and Bacon, ₱ lb	20@ 28
Cranberries, ₱ gal	75@ 1 00
Potatoes, sweet, ₱ lb	8@ —
do Irish, ₱ lb	1@ 1½
Tomatoes, ₱ lb	@ —
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	6@ 10
Pears, table ₱ lb	3@ 25
Plums, dried, ₱ lb	@ —
Peaches, dried, ₱ lb	@ —
Oranges, ₱ doz	75@ 1 00
Lemons, ₱ doz	1 00@ 1 25
Chickens, apiece	87@ 1 12
Soap—Pale & C. O	10 @ 12
Castile	14 @ 15

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, March 17, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@ 1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	60 @—65
American Pig ₱ ton	55 @60
Refined Bar, bad assortment, ₱ lb	3 @—
Refined Bar, good assortment, ₱ lb	3½@—
Boiler No. 1 to 4	4 @ 5
Plate No. 5 to 9	4½@ 6
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—

COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing ₱ lb	36 @38
Sheathing, Old	20 @30
Sheathing, Yellow	30 @32
Sheathing, Old Yellow	12 @13
Bolts	13 @16
Composition Nails	30 @32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	14 @15
Plates, I C Charcoal	12 @13
Roofing Plates	11 @12
Banca Tin Slabs, ₱ lb	30 @ 5

STEEL.—English Cast Steel, ₱ lb 12½@10

QUICK-SILVER.—Per lb — @65

For export	55 @—

ZINC.—Sheets ₱ lb 9½@10

LEAD.—Pig ₱ lb 8 @—

Sheet	10 @12
Pipe	10 @12
Bar	10 @11

BORAX—California, ₱ lb 20 @23

Postage.—The postage on the MINING AND SCIENTIFIC PRESS to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents.

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for BOOK AND PAMPHLET PRINTING entrusted to the Mining and Scientific Press Job Office.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'D DELINQ'T LIST.	DAY OF SALE.
Arbitrius, Chihuahua, Mex., $1		Mar 29	April 9
Alpha, Gold Hill, Storey co., Nev., $30		Mar 21	April 24
Blue Ledge, $1.50		April 14	Ap 11 28*
Beard & Seaver, Lander co., Nev., 50c		April 14	May 1*
Baltimore American, Storey co., Nev., $2.		April 12	April 23
Boston Copper, 50c		Mar 3	Mar 20
Bunker Hill C. O. & S. M. co., $1.50		Mar 23	April 4
Bullion			$10 00
Comet Petroleum co., 30c		Mar 31	April 14*
Crown Point		Dividend payable Mar 15	
Cordillera		Annual Meeting Mar 19	
Consolacion, $1.25		Mar 31	April 15
Capital, Lander co., Nev., $5		April 3	April 19
Cole, Storey co., Nev, $1		Mar 15	Mar 31
Chipionea, Sonora, Mex., $5		Mar 14	Mar 26
Eagle Quartz, Amador co., Cal., $1		April 7	April 25*
Evoea, Del Norte co., Cal., 25c		Mar 3	Mar 19*
Evening Star, Humboldt co., Nev., 50c		Mar 31	April 14*
Emerald Copper, $1		Feb 10	Feb 24
Franco-Americano, San Antonio, L. Cal., 50c		Mar 17	Mar 26
Geo. Washington, Alpine co., Cal., $1.50		Ear 24	April 10*
Harker, Lander co., Nev., 50c		April 14	May 1*
Honest Miner, Lander co., Nev., $1		April 7	April 18*
Hanscom, Copper, Del Norte co., 15c		Mar 31	April 14*
Humboldt, Nevada		Annual Meeting April 10	
"1.X.L.," Alpine co., Cal., $2.50		Mar 6	Mar 19
Jeffersen Lander co., Nev., 50c		April 14	April 30*
Jewett, Storey co., Nev., $1		Mar 3	Mar 20*
Jeffrey Oil		Meeting Mar 14	
Keokuk, Contra Costa co., Cal., 10c		Mar 17	Mar 31*
Kearsarge		Feb 17	Mar 16*
Lady Bell, 10c		April 14	April 28*
Leland, Arizona, 50c		Mar 3	Mar 19*
Lady of the Lake, Arizona		Mar 3	Mar 19*
Lady Bryan		Annual Meeting April 2	
La Trobe T & M co., Storey co., Nev., $1		April 10	April 23
Madison, Lander co., Nev., 50c		April 14	April 30*
Monitor, Lander co., Nev., 75c		April 14	April 30*
Mosquito, Calaveras, Cal., $5		April 7	April 23*
Moss Ledge co.		Meeting March 23	
Maggie		Sale Mar 23	
Morning Star, Alpine co., $1		Mar 13	Mar 19
Maria, Chihuaha, Mex., $2		March 31	April 14
Matamoras, Chihuaha, Mex		Meeting Mar 20	
Nuestra, Sonora de Guadalupe, Mex., $1		Mar 31	April 16
Oregon, Lander co., Nev., 25c		April 14	May 1*
Oxford Neta, Esmeralda, Nev., 50c		April 7	April 25*
Old Colony, Austin, Nev., $1		April 14	April 28*
Ophir		Annual Meeting Mar 21	
Overman, Storey co., Nev., $15		April 3	April 18
Pride of the East, 50c		April 14	April 27*
Providence, Nevada co., Cal., $1		Mar 17	Mar 31*
Planet, Copper		Meeting Feb 22	
Patrocinia & Dolores, Chihuahua Mex., $2.50		April 1	April 10
Peninsula, Lower Cal., $5		April 3	April 14
Refugio, Chihuahua, Mex., $2½		Mar 31	April 14
Refugio, Mex		Meeting April 2	
Silver Cloud, Lander co., Nev., 50c		April 14	April 27*
Santa Cruz 50c		April 14	April 28*
Southern Light, Lander co., Nev., $12.50		Mar 10	Mar 26*
Shoshone, Lander co., Nev., $1		April 9	April 23
Siempre Viva, Sinaloa, Mex., $2.50		Mar 27	April 7
Siempre Viva, Sinaloa, Mex		Annual Meeting Mar 18	
Sierra Valley, Plumas co., Cal., $1		Mar 5	Mar 17
Sierra Silver, Douglas co., Nev., $3		Mar 9	Mar 23
Salambo Copper, 50c		Mar 17	April 5
Sierra Nevada, Storey co., Nev., $2		Mar 13	Mar 28
San Marcial, Sonora, Mex		Meeting Mar 20	
United States, Storey co., Nev., 50c		Mar 17	Mar 31*
Wallpi, Arizona		Annual Meeting, Mar 21*	
Yuba, Yuba co., Cal., $2		Mar 31	April 14*
Yuba, Yuba co		Meeting Mar 19	
Yellow Jacket, Storey co., Nev., 150		Mar 17	April 17

*Those marked with an asterisk (*) are advertised in this journal.

Rates of Advertising

IN THE

MINING AND SCIENTIFIC PRESS.

Mining Advertisements.

Notices of Meetings, per square, one week	$1 00
Notices of Meetings, per square, four weeks	2 50
Assessment Notices, of ordinary length, four weeks	5 00
Assessment Notices, of more than usual length, for each additional square	2 50
Delinquent Sales, per square, two weeks	2 00
Delinquent Sales, per square, three weeks	2 50
Postponements, per square, one week	1 00
Slips of Advertisements, printed for meetings or assessments, per hundred	1 00
Advertising blanks and circulars	Free

Miscellaneous Advertisements.

One week, per square	$1 00
One month, per square	2 50
One quarter (3 months), per square	7 50

Advertisements of great length, or of special character, inserted by contract on the most favorable terms.

☞ *Ten lines of solid advertising type constitutes a square.* ☜

Terms of Subscription.

THE MINING AND SCIENTIFIC PRESS is published every Saturday morning (containing sixteen pages—size of *Harper's Weekly*) at the following rates:

One copy, one year, by mail, in advance	$5 00
One copy, six months, by mail, in advance	3 00
One copy, one year, by express	6 50
One copy, six months, by express	3 50
Five copies, one year, by mail, in advance	20 00
By city carriers, per month	50
Single copies	12½
Monthly Series (or parts), containing 4 Nos	50
Monthly Series, containing 5 Nos	62½

THE CIRCULATION of the PRESS, already extensive, is rapidly increasing, and substantial men who can profit by widely disseminating information of their business amongst the most intelligent, influential and industrial classes of the Pacific States and Territories will find no more effectual or economical medium for advertising

DEWEY & CO., Proprietors.

Patent Agency and Job Printing Office, 509 Clay street, San Francisco. July 1 1865

There is a vast bed of coal underlying the city of La Salle, Iowa. The city fathers propose to sell the right of mining coal under the city (which lies at the depth of 300 or 400 feet below the surface) to the highest bidder, and expect to get a bonus of royalty of twenty cents per ton for the privilege. It is estimated that there are 27,000 tons under each acre.

It is proposed to introduce in the Paris Exhibition of 1867 a number of workmen of all nations, who will be employed in manufacturing the articles which are in common use in their respective countries.

RUGGLES' PRINTING PRESS

For Sale or Exchange.

The Proprietors of the Mining and Scientific Press have on hand a Half-Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

DEWEY & CO., Job Printers,
Office, 505 Clay street.

Trades and Manufactures.

Pacific Glass Works

Are now prepared to execute orders for the manufacture of
All Kinds of Bottles to Order.
Office, No. 621 Clay street, San Francisco. 3v11-3m

JOHN DANIEL,
(SUCCESSOR TO O. GORI)
MARBLE WORKS,
No. 403 Pine st. bet. Montgomery and Kearny, San Francisco.
Mantels, Monuments, Tombs, Plumbers' Slabs, Etc., On hand and Manufactured to order.
☞ Goods shipped to all parts of the State. Orders respectfully solicited. 5v8-3m

NATHANIEL GRAY,
General Furnishing Undertaker,
641 Sacramento St., corner of Webb, San Francisco.
Barstow's Metallic Burial Caskets and Cases. 1tf

THEODORE KALLENBERG,
Maker of Models for Inventors.
MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.
No. 418 Market street, San Francisco. n7-tf

Palmer's Patent
ARTIFICIAL LEG,
Manufactured in Philadelphia, Penn.
JARVIS JEWETT, AGENT.
629 Washington Street, San Francisco, Cal. 10v8-1m

DENIS WHELAN,
Fashionable Boot Maker,
REPAIRING NEATLY DONE, AT SHORT NOTICE.
No. 17 Fourth Street,
Near Market street, San Francisco.
15v10-1m*

FIRE, HYDRAULIC & SUCTION HOSE,
And Leather Belting.
M. M. COOK & SON,
351 Battery Street, San Francisco,
Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.
The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO
CORDAGE MANUFACTORY.
CONSTANTLY ON HAND,
A Large and Complete Assortment
—OF—
MANILA CORDAGE,
FOR MINING PURPOSES
—ALSO—
WHALE LINE, BALE ROPE, ETC.,
Manufactured from Pure Manila Hemp.
Hoisting Ropes for Deep Shafts,
—ALSO—
Lines for Ferry Boats,
Manufactured to Order.
Office at **TUBBS & CO.'S,**
Nos. 611 and 613 Front street.
Manufactory at the Potre 14v10

Professional Cards.

Our Patent Agency.

The Patent Agency of the Mining and Scientific Press has been signalized with remarkable success during the past two years. The importance to the inventive genius of this coast of a thorough and reliable agency for the solicitation of Letters Patent from the United States and foreign Governments cannot be over-rated, and the Proprietors of the Press, feeling the responsibility which rests upon them, and the reward which must follow the faithful performance of their trusts, will take care to afford inventors every advantage to be secured to them through a competent and responsible agency upon this coast.

S. C. BUGBEE & SON,
ARCHITECTS.
DESIGNS, MACHINE DRAWINGS, AND DRAWINGS ON WOOD.
74 and 75 Montgomery Block
SAN FRANCISCO. 25v10-3m

FREDERICK MANSELL.
Mechanical & Architectural Draughtsman,
No. 422 California street, corner of Leidsdorff.
Drawings of Models made for parties applying for patents at Washington or London. mar23-tf.

JAMES M. TAYLOR,
Attorney and Counsellor at Law,
COURT COMMISSIONER, appointed by the Fourth District Court, COMMISSIONER OF DEEDS for Nevada and Massachusetts,
Court Block, San Francisco.
Entrances opposite City Hall, Merchant street, and 636 Clay street. 14v11tf

DR. H. AUSTIN,
DENTIST,
No. 634 Washington Street,
Between Montgomery and Kearny Streets
[OVER SAN FRANCISCO BATHS]
SAN FRANCISCO. 20v10-qy

AUGUST KUNAST,
Stock Broker,
Member of the
San Francisco Stock and Exchange Board,
Buys and Sells Stocks, Bonds, Etc.
Office, No. 540 Washington Street, San Francisco. 2v10

G. F. DEETKEN,
Mining Engineer and Metallurgist,
Address - - - - - San Francisco. 25v9

WILLIAM P. BLAKE,
MINING ENGINEER,
Will make Surveys and Examinations of Mines, or give advice regarding their working, the erection of Machinery, etc.
Office at Union Iron Works, corner of First and Mission sts., or Lock Box 2,077 Post Office, San Francisco. 11v22qy

W. O. ANDREWS,
NOTARY PUBLIC
—AND—
COMMISSIONER OF DEEDS,
636 Montgomery Street.
10v8qy

GEORGE H. BAKER,
Lithographer & Engraver,
No. 522 Montgomery St., San Francisco.
MINING STOCK CERTIFICATES LITHOGRAPHED IN MOST ARTISTIC STYLE. CALL AND EXAMINE SPECIMENS.
10v8-tf

SHERMAN DAY,
Mining Engineer,
No. 57 Montgomery Block, San Francisco,
Will examine, survey and report upon mines, and consult and advise concerning investments in mining property, or the machinery management and expenditures of mines. 22q*

To Mining Companies.

A GENTLEMAN OF MUCH EXPERIENCE AS A MINING Superintendent, in England, Spain, and on the Pacific coast, and one intimately acquainted with every department of mining, and with nearly every class of mineral, is desirous of securing a position as Superintendent of some mining operation in California or Nevada. The applicant was for four years Superintendent of the New Almaden Quicksilver Mine, in this State. The best of reference given on application at this office.
San Francisco, Oct. 12, 1865 .5v11tf

REMOVAL.
MONS. A. COULON,
Informs his patrons that he has removed his DRAWING SCHOOL from Pine street to
410 Kearny Street.
Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done. 20v11-1m

Volume Twelfth.—The Mining and Scientific Press, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

Metallurgy.

MOSHEIMER'S CONCENTRATOR
RECEIVED THE FIRST PREMIUM
From the ROYAL POLYTECHNIC SOCIETY, in Cornwall, and was highly recommended by the Commissioners as the most Simple and Effective Concentrator for all kinds of Ores.
Every Quartz Mill ought to have them, as they not only save Gold and Silver, but also the Quicksilver and Sulphurets, without extra labor. They can be built entirely of wood at the mine, and will separate more perfectly in one operation, than any other Concentrator in use. Apply to
J. MOSHEIMER,
23v11qy 423 Washington street.

EUROPEAN
METALLURGICAL WORKS,
—AND—
Practical Mining School,
Bryant Street, Between Third and Fourth,
SAN FRANCISCO.
THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.
PRACTICAL MINING SCHOOL.
The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.
S. P. Kimball, J. R. Murphy.
10v10

SODIUM AMALGAM!
With Instructions for its Use.
THE ABOVE
FOR SALE IN ANY QUANTITY THAT MAY BE REQUIRED,
—BY—
H. P. WAKELEE, Importer,
2v12 1m Corner Montgomery and Bush streets.

G. KUSTEL,
Metallurgist and Mining Engineer,
Stevenson House, corner Montgomery and California sts.
Ores Analyzed,
Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
20v11-3m

BOALT & STETEFELDT,
Metallurgists and Mining Engineers
AUSTIN, NEVADA.
Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

Copper, Lead, Gold, Silver,
Nickel and Cobalt Ore.
The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to
THOMAS PRICE,
Agent for Townshend Wood & Co., Swansea,
No. 406 California Street, San Francisco.
15v10-3m

MARTIN & CO.,
Office, Stevenson House,
Corner California and Montgomery streets (up stairs).
WILL CONTRACT FOR THE
PURCHASE OF COPPER ORES,
Assaying eight per cent. and upwards of Copper to the We will make advances upon Ores of Copper.
San Francisco, Post Office Box 1259, 22

MINERS
Who wish to erect Quartz Mills, Concentrating or Smelting Works, will find it to their interest to consult the undersigned, as to the best and cheapest mode of Reducing Ores. Being acquainted with all the modern improvements of Europe and America, in Mining, Machinery and Metallurgy, I undertake the erection of any kind of Works, and warrant their successful operation.
Gold, Silver and Copper Ores bought in any quantity.
Assay of Ores made by a new Fire Process in half the usual time, and at half price.
Apply to **J. MOSHEIMER,**
23v11qy 423 Washington street, San Francisco.

W. S. KEYES, A. M.,
(GRADUATE OF SCHOOL OF MINES, FREIBURG.)
Office, northwest corner Montgomery and Sacramento Streets.
Room No. 19, over Parrott & Co's Bank.
Assays—Analysis of Ores, Mineral Waters, etc., etc. Mines examined and reported upon.
Office Hours, from 9 to 12 M. 8v12tf

Subscribers who do not receive the Mining and Scientific Press in due time, are requested to inform the publishers.

W. A. Goodyear. T. A. Blake.
GOODYEAR & BLAKE,
Civil and Mining Engineers
—AND—
Metallurgists.
Among others, refer by permission to—
Prof. Silliman New Haven Ct.
Dr. John Torrey, U. S. Assayer, New York City.
W. C. Ralston, D. O. Mills, Bank of California;
Barron & Co., San Francisc.
Address, P. O. Box 2,092, San Francisco, Cal. 9v12qr

SODIUM,
Potassium, Magnesium,
And a fresh supply of
PURE CHEMICALS.
Just received and for sale by
JOHN TAYLOR & CO.,
4v12-1m 512 Washington street.

WILLIAM PENROSE,
Agent for Messrs. Vivian & Son and Dillwyn & Co., Smelters at Swansea,
Is prepared to buy in any quantity
COPPER, SILVER, GOLD, LEAD
AND OTHER VALUABLE ORES;
Also Lead Bars Containing Gold and Silver,
☞ Full value paid on delivery in this City. ☜
Address Lock Box No. 932, P. O., San Francisco. 25v10

ADVANCES MADE
—ON—
Copper Ore,
BY ALSOP & CO.,
4v12-3m **California Street, San Francisco.**

Mines Sold in New York.
THE SUBSCRIBER HAVING EXCELLENT FACILITIES for disposing of Gold, Silver and Copper Mines of the Pacific coast in New York and Boston, will be pleased to confer with those having mines for sale. No charges unless sales are made
Refers to R. O. Sneath, O. W. Gibbs, Thos. Hill.
4v12 J. WILLIAMS, 413 East street.

By Authority of the State of California,
Having fully Complied with the Law by a Deposit of $525,000 Bonds of the State of California and the United States.

BIGELOW & BROTHER,
General Insurance Agents.

Fire, Marine, and Life Insurance.

CAPITAL REPRESENTED $15,000,000.

California Deposit, $525,000.

OFFICES—N. W. corner of Montgomery and Sacramento streets.

COMPANIES REPRESENTED:

HOME INSURANCE CO. OF N. Y., Assets	$3,700,000
HARTFORD FIRE INSURANCE CO., Assets	1,500,000
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FIRE INSURANCE POLICIES issued on all kinds of Insurable Property in Country or City.

ACCIDENTAL POLICIES issued on the most favorable terms, insuring the payment of stated sums in the event of death, or a fixed Weekly Compensation for Total Disability for the term of twenty-six weeks for any one accident. These Policies cover all kinds of Accidents, and are issued for single trips or for the year.

Losses Payable in Gold Coin of the United States.

We represent Companies
That Have Stood the Test of Years,
And offer as favorable terms as any on the Pacific Coast.
BIGELOW & BROTHER,
20v11tf **General Agents.**

By Mail.—The Mining and Scientific Press will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

Send us Word.—If any subscriber to this journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

WE STAND CORRECTED.—A correspondent of the Nye County *News*, writing to that paper from Weston, Nye county, under date of February 27th, says:

I notice frequent mention in the MINING AND SCIENTIFIC PRESS, and other papers, under the head of "Outside Districts," which I inter implies everything not centered at Austin or Virginia City. Not wishing to detract from the rich mines at either place, I would ask, have we not an independent existence? It must be exceedingly gratifying to the miners of Union and Mammoth Districts to be so classed. The owners of such mines as the Murphy, at Twin River, the Dee, at San Antonio, the Live Oak, Vigilante, Keystone, Uncle Sam, Rough Diamond, and others, in this district, and the many fine mines at Ione, must be highly elated to be connected with Austin as "outsiders." Admitting that the obnoxious phrase originated at Virginia, not without reason, let it be known that it is not applicable here, in a vast region of country being developed with double the energy, in all save building mills, perhaps, in advance of a supply of ore. Of course, that excellent and valuable journal, the MINING AND SCIENTIFIC PRESS, means no unkindness; on the contrary, it is the impartial advocate of mining industry everywhere, but it is the limited knowledge of the great extent of the silver region of Central Nevada, of the vigorous earnestness of the bone and muscle struggling here, as yet unassisted by greenbacks, which have built up the magnificent mills at Austin, and of the number of prosperous mining districts, many equal, many superior to the "great centers." For Mammoth I will say, we are "outside" to no place, nor are we second to any, and this we will prove at the earliest possible day. Everybody notice, and drop the odious term, as applied to us.

A CURIOUS LANDSCAPE.—There has seldom been a greater instance of misplaced ingenuity than the great landscape in mosaic made by a clerk in the French War Office. It is composed entirely of insects (of beetles alone there are more than forty-five thousand) of nearly four thousand species, and took four years in making.

THERE were eighty-seven persons struck and killed by lightning in France during the year 1864, of whom sixty-one were men and twenty-six women.

A Business Compliment.

PETALUMA, Oct. 4, 1865.

MESSRS. DEWEY & CO.—Gentlemen: Your note informing me that my patent for Crushing and Baling Machine is ordered to issue is at hand. Please accept my thanks for the prompt and business like manner with which the case has been conducted, and inclosed find twenty dollars for balance Government fees. Respectfully, etc.

JACOB PRICE.

Situation Wanted.

AN ENGINEER, who would take charge of a Stationary Engine, in the city or country, for a reasonable salary, desires a situation. Address, "Engine," Box 17, San Francisco Post Office. 5v12tf

Machinists and Foundries.

UNION IRON WORKS,

Sacramento.

WILLIAMS, HEILBRON & CO.,

MANUFACTURERS OF

STEAM ENGINES, BOILERS,

And all kinds of Mining Machinery.

Also, Hay and Wine Presses made and repaired with neatness, durability and dispatch.

Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

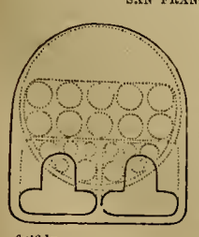
Front Street, between N and O streets,

14v11 SACRAMENTO CITY

NEPTUNE IRON WORKS,

Corner of Mission and Fremont Streets,

SAN FRANCISCO.



MARINE, Locomotive,

And all kinds of HIGH PRESSURE

Steam Boilers MADE.

All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.

All kinds of Sheet Iron and Water Pipe, Coal Oil Stills, Wrought Iron Worms, etc., etc. Manufactured to Order.

Old Boilers Repaired

6v12-1y **D. CAMERON.**

JOHN LOCHHEAD'S

STEAM ENGINE WORKS,

Beale Street, near Mission Street,

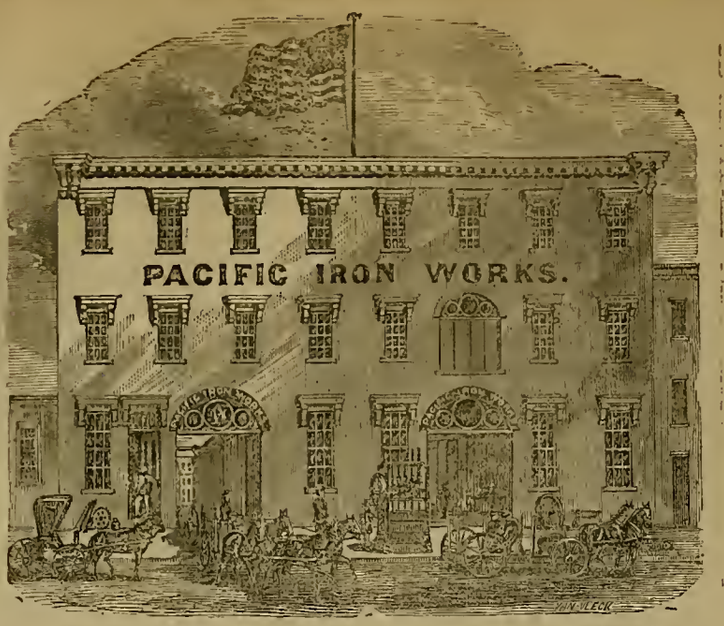
SAN FRANCISCO.

Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc

25v9q JOHN LOCHHEAD, Practical Engineer



THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Brynn Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

A. ROMAN & COMPANY,

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Offer for sale a large and well-selected stock of Works on the **Mechanical Arts,**

Mining, Assaying, Metallurgy, Engineering, Architecture and Carpentry, Chemistry, Drawing, Agriculture, Geology, Mineralogy, etc.

A. ROMAN & CO., PUBLISH

NEVADA AND CALIFORNIA PROCESSES,

Of Silver and Gold Extraction, by GUIDIO KUSTEL, 8vo., price, $5., the best Book published for Miners, Prospectors and Millmen.

☞ **All new works received as soon as published,** ☜

FOR SALE AT THE LOWEST PRICES,

9v12-1m ORDERS BY MAIL PROMPTLY AND CAREFULLY ATTENDED TO.

Vulcan Iron Works Company

[ESTABLISHED 1850.]

First, Natoma and Fremont Streets.

IRON FOUNDERS,

Steam Engine and Locomotive

BUILDERS.

Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition o new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery, Locomoives, Car Trucks, Car Wheels, Housings and Irons; and Flouring Mills, Quartz Mills, Sugar Mills, Saw Mills,

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REAUCING PAN AND AMALGAMATOR

REATH'S AMALGAMATOR;

HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;

BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;

FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;

JONVAL'S IMPROVED WATER WHEEL;

LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.

STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

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MACHINE WORKS,

Nos. 109 and 111 Fremont street, near corner of Mission,

OPPOSITE MECHANICS' MILL,

SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL

And Quartz Machinery, Printing Presses,

—AND—

MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

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SAN FRANCISCO.

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Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

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Locomotive, Fine, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

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Wheeler & Randall's improved Tractory Curve Pan, Zenas Wheeler's improved flat bottom pan, Seldin's pan, Veatch's tubs, Prater's concentrators, Wahlee's pans, Beers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

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Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

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Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

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HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

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Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

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Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

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HINCKLEY & CO.,

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—AND—

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Machinery, Mining Pumps, Amalgamators,

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Partienlar attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

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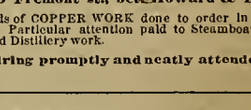

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All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to. 13v11

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Wine, Cider, Cotton and Tobacco Presses

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Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Salmon's Patent Amalgamator and Separator; Wheeler & Randall's New Grinder and Separator; Baux & Guiod's Amalgamator and Separator; W. W. Tupper's Patent Sectional Grate Bar; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston-Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings, at the lowest market rates.

6v11-1y **DEVOE, DINSMORE & CO.**

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Mr. Geo. M Newton is our authorized agent in New York City, and will receive advertisements and subscriptions for the Mining and Scientific Press at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "Stockholder," No. 72 William street.

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the Mining and Scientific Press can be accommodated by calling upon our Agent, Mr. Turner Hamilton, at the Assembly Building, 106 South Tenth street, Philadelphia, Pa., where samp copies of our publications can always be found.

FIRST PREMIUMS!

FOR PRINTING,

AWARDED AT THE

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SAN FRANCISCO, 1866,

—AND AT THE—

State Fair at Sacramento, 1866,

—TO—

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REV. P. V. VEEDER,
Principal of the City College.

6v12tf Or at 406 California Street.

SANTA CLARA COLLEGE, S. J.,

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Conducted by the Fathers of the Society of Jesus.

The FIFTEENTH ANNUAL SESSION of this College will commence on

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TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months..... $350

For further information and catalogues, apply to the President of the College, or to Rev. A Maraschi, St. Ignatius College, Market street, San Francisco.

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MR. AND MRS. HERMON PERRY,

7v12tf **Principals.**

Benicia College.

THE TWENTY-SECOND SESSION HAS JUST OPENED. Pupils received at any time.

The Instruction is divided into three parts—The Elementary course; the English, or Scientific Course; and the ordinary College Course.

Pupils generally, and especially those in the Preparatory Departments, board at the Institution, under the direct charge of the Teachers.

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3v12-3m **C. J. PLATT, Principal.**

1852. 1866

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Fourteenth Year of Publication.

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Founded in 1852.

The oldest Weekly Paper in the State, permanently established, and more widely circulated at home and abroad than any other on the Pacific Coast. In California, the Atlantic States, and throughout the entire Gold of its great and rapidly increasing circulation, The Golden Era is universally regarded as a Literary and Family Journal of unequalled excellence. Among its contributors are all the best writers on this side of the Continent, and correspondents and contributors of distinguished ability in New York, Paris and London.

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—OR—

The Secret of Wilmindon Hall.

A NOVEL.

By Miss M. E. Braddon,

Author of "Lady Audley's Secret," "The Outcasts," "The Doctor's Wife," "Three Times Dead," etc.,

—IN—

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Is universally read in every city, town, village and mining and agricultural precinct in California, and offers unusual and unequalled advantages to those who desire to bring their business prominently before the community. Only a limited space is devoted to advertising. All advertising pages are also largely occupied with fresh and interesting reading matter, and no advertisement can escape attention. The charges for advertising are not so large, proportioned to the benefits derived, as those of other papers. Liberal terms will be made with those who advertise for three or six months, or by the year.

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ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

In compliance with the act of the Legislature of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS.

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:
Fire.....$12,973,949
Marine..... 484,408

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19, 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Checseman,	Chas. Mayne,
Abm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Anson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O Earl,
C. Meyer.	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis.
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insuraace Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.

4v12-3m

BUY

The Monthly Series

—OF THE—

MINING AND SCIENTIFIC PRESS.

Send it to Your Friends.

Issued at the close of EACH Month.

PRICE.....50 CENTS.

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Beard & Seaver Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco mar17

Blue Ledge Gold and Silver Quartz Mining Company, Kelsey District, El Dorado County, California. Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of one dollar ($1.50) and fifty cents per share on each and every share of the capital stock of the Blue Ledge Gold and Silver Quartz Mining Company, was levied, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, at 12 o'clock M. of that day, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

mar17 J. M. BUFFINGTON, Secretary.

Hurker Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. mar17

Economy in Advertising.—The Mining and Scientific Press is the best and most economical mining advertising medium in this city. Our terms are less than one half the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The Press contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Jefferson Gold and Silver Mining Company, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of March, 1866, an assessment of fifty cents (50) per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. mar17

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, Cal.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
W W Theobalds	9	100	$10 00
J McMahon	557	50	5 00
Geo F Sharp	425	200	20 00
F Locher	278	200	20 00
F Loeher	279	50	5 00
F Loeher	297	120	12 00
F Loeher	330	30	3 00
F Loeher	347	90	9 00
F Loehor	350	20	2 00
F Loeher	374	45	4 50
F Loeher	379	70	7 00
F Loeher	405	100	10 00
F Locher	431	15	1 50
F Loeher	475	75	7 50
F Loeher	495	150	15 00
F Loeher	508	59	5 90
F Locher	513	241	24 10
F Loeher	514	155	15 50
F Locher	527	163	16 30

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co , at No. 626 Montgomery street, San Francisco, on the 31st day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. B. WINEGAR, Secretary.
Office, 308 and 310 Front street, San Francisco. mr17

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meating of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, at the office of the Company, or to Oco. H. Russell, at Crescent City.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

C. HEYWOOD, Secretary,
mar17 No. 311 Market street.

Madison Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. mar17

Monitor Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of seventy-five cents per share was levied upon the Capital Stock of said Company, payable immediately in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco mar17

Oregon Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. mar17

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the Mining Press will be found an invaluable aid.—[Nye County News

Pride of the East Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 13th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Friday, the 27th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Providence Gold and Silver Mining Company. Location of Works: Nevada Mining District, Nevada County, Cal.

NOTICE.—There are delinquent upon the following described Stock, on account of Assessment levied on the 5th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
John S Carter	100	20	$20 00
John S Carter	101	20	20 00
John S Carter	115	10	10 00
Phebe F. Carter	167	5	5 00
Peter M Cain	170	10	10 00
Jos C Collins	222	10	10 00
Jos C Collins	2 3	10	10 00
Jos C Collins	2 34	10	10 00
Jos C Collins	235	5	5 00
Jos C Collins	259	10	10 00
Jos C Collins	260	10	10 00
Jos C Collins	261	10	10 00
Jos C Collins	262	5	5 00
Allen Cody	247	10	10 00
W P Davidson	25	3	3 00
Chas Hadsell	152	23	23 00
Chas Hadsell	156	20	20 00
Mills & Evans	135	6	6 00
Spencer Poole	251	25	25 00
J R Richards	168	5	5 00
J R Richards	253	25	25 00
Maria Sutherland	121	10	10 00
J B Sutherland	128	10	10 00
M Sanguer	171	10	10 00
Bertha Seamao	199	5	5 00
H T Thoburn	98	2	2 00
J J Robbins	198	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 31st day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Covernment House. mar17

Santa Cruz Petroleum Oil Works Company, Location: Santa Cruz County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of March, 1866, an assessment (No. 15) of fifty cents per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary, R. Wegoner, 415 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be madobefore, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal. mar17

Silver Cloud Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 13th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Friday, the 27th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

United States Mining Company, Virginia District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 7th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Jas L Blakio	304	50	$25 00
Jeremiah Dwyer	310	20	10 00
M B French	406	50	25 00
Chas Hanaon	329	10	5 00
C L Harvey	330	10	5 00
A C Knox	74	2	1 00
John McArthur	412	50	25 00
H S O'Neal	328	10	5 00
John Peariman	179	5	2 50
John Penriman	387	20	10 00
D J Perkey	413	50	25 00
Horace Porter	323	250	125 00
J B Quinn	327	10	5 00
J L Shiman	215	5	2 50
J L Shiman	216	5	2 50
J L Shiman	391	10	5 00
S A Snow	379, 380, 381, 382, 383 10 ea	50	25 00
S W Stoddard	407	35	17 50
Wm Van Housen	390	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 7th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 31st day of March, 1866, at the hour of 12 o'clock, M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House. mr17

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Comet Petroleum Company, Mattole District, Humboldt County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of January, 1866, an assessment (No. 21) of thirty (30) cents per share was levied upon the capital stock of said Company, payable on the 23d day of January, 1866, in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 36 Exchange Building, Montgomery street, in the city of San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

L. CROSBY, Secretary.

Office, 36 Exchange Building, Montgomery street, San Francisco, California. mar3

Eagle Quartz Mining Company, Amador County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary, at the Office of the Company, No. 10 Exchange Building, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on the 25th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Building, San Francisco, California. mar10

Evening Star Gold and Silver Mining Company, Humboldt County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinqueat, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. DUPERU, Secretary.

Office, Pier 22 Stewart street, San Francisco, Cal. mar3

Evoca Consolidated Copper Mining Company.—Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 31st day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	Number of Certificate.	Number of Shares.	Amount.
I Munson	71	20	$ 5 00
I Munson	70	12	$ 3 00
Ira Munson	74	20	$ 5 10
W C Budd	161	50	$12 50
W H Bell	32	5	$ 1 25
W H Bell	33	5	$ 1 25
W H Bell	34	5	$ 1 25
W H Bell	35	5	$ 1 25
W H Bell	36	5	$ 1 25
W H Bell	37	5	$ 1 25
W H Bell	38	5	$ 1 25
W H Bell	39	5	$ 1 25
W H Bell	50	5	$ 1 25
W H Bell	51	5	$ 1 25
W H Bell	52	12	$ 3 00
C A Crane	64	12	$ 3 00
P C Dart	121	12	$ 3 00
Charles D Carter	138	10	$ 2 50
Charles D Carter	140	10	$ 2 50
Charles D Carter	141	10	$ 2 50
W F Williamson	14	112	$28 00
W F Williamson	15	112	$28 00
Geo F Parker	104	112	$28 00
Charles E Abbot	216	207	$51 75
Charles E Abbot	217	12	$ 3 00
G S Ashmead	173	50	$12 50
G S Ashmead	238	50	$12 50
Wm Hamill	177	50	$12 50
George Treat	196	50	$12 50
J J Robbins	209	152	$38 00
J H Stewart	not issued	40	$10 00
F Collier	21	112	$28 00

And in accordance with law, and an order of the Board of Trustees, made on the 31st day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Monday, the 19th day of March, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHARLES E. ABBOT, Secretary.

Office, 537 Washington street, Room 3, San Francisco, California. mar3

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal. Assessment No. 10.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 20th day of February, 1866, an assessment of one dollar and fifty cents ($1.50) per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on Saturday, the 24th day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 10th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco.

NOTICE.—By an order of the Board of Trustees, made in the above Company, all the Certificates of Shares outstanding of the old stock are annulled, and have been replaced by issues of Certificates of the new stock, and parties are cautioned against purchasing any of the old Certificates, as they are all cancelled on the books of the Company, and all transfer of the same stopped.

feb24 W. D. ROOT,

Honest Miner Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of March, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 18th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front Street, San Francisco. mar10

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of March, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. ma3

Julia Gold and Silver Mining Company, Virginia, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 1st day of March, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 16th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. mar3

Jewett Gold and Silver Mining Company. Location of Works: Gold Hill District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessmeat levied on the 29th day of January, 1866, the several amounts set opposito the names of the respectivesshareholdera, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
George E Willett	3	20	$ 20 00
A M Comstock	10	80	80 00
George E Willett	31	20	20 00
Joseph Naptbaly	74	25	25 00
Joseph Naptbaly	75	25	25 00
Joseph Naptbaly	76	50	50 00
Joseph Naptbaly	77	100	100 00
James G Cooper	84	5	5 00
S R Harris	88	20	20 00
S R Harris	89	20	20 00
David Spence	94	2	2 00
Piney Bartlett	112	12	12 00
Thomas Thwaltes	117	8	8 00
S H Harmon	118	26	26 00
E M Van Reed	127	20	20 00
Gerard Debney	129	18	18 00
Jacob Hardy	139	20	20 00
James G Cooper	143	19	19 00
G M Burnham	145	10	10 00
James Wright	152	40	40 00
James Wright	153	40	40 00
James Wright	154	20	20 00
George E Cowell	167	100	100 00
George E Cowell	168	100	100 00
George E Cowell	169	100	100 00

And in accordance with law, and an order of the Board of Trustees, made on the 29th day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 625 Montgomery street, on the 20th day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

C. M. BURNHAM, Secretary pro tem.

Office, 436 Jackson street, San Francisco. mar3

Leland Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 1st day of February, 1855, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Isaac Brunn	71	15	$ 7 50
A E W Thompson	120	20	10 00
W J Leland	63	25	12 50
Emma Kinmaa	114	10	5 00

And in accordance with law and an order of the Board of Trustees, made on the 1st day of February, 1856, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 19th day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. mar3

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

MONEY BY MAIL.—Subscribers and advertisers remitting as money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid.

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Mohave County, Arizona Territory.

NOTICE.—There are delinquent upoo the following described stock, on accouot of assessment levied on the 1st day of February, 1866, the several amounts set opposite the names of the respectivo shareholders as follows:

Names.	No. Certificate.	No. Shares.	Amount.
A F W Thompson	119	20	$10 00
W J Leland	56	25	12 50

And in accordance with law and an order of the Board of Trustees, made on the 1st day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the Company, on the 19th day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. mar3

Mosquito Quartz Mining Company, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 3d day of March, 1866, an assessment of five dollars ($5) per share ($1 per foot) was levied upon the capital stock of said Company, payable on Monday, March 5th, 1866, in United States gold and silver coin, to E. D. Waters, Jr., Treasurer, at the office of the Company, 536 Clay street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 23d day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

E. H. WATERS, Secretary.

Office, 536 Clay street, San Francisco. mar10

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, or to the Superintendent, at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 25th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretary.

Office, corner Broadway and Sansomo streets, San Francisco. mar10

Old Colony Gold and Silver Mining Company. Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 8th day of March, 1866, an assessment of four (4) dollars per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, No. 523 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. C. HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco, second floor. mar10

Southern Light Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

NOTICE.—There are deliaquent upon the following described stock, on accouot of assessment (No. 8) of twelve dollars and fifty cents ($12.50) per share, levied February 0th, 1866, the several amoants set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
United R R S M Co	117	150	$1,875 00
Light, C H	9	6¼	78 13
Hanchett, H N	23	5	62 50
Wat iss, Geo E	186	20	250 00

And in accordance with law, and an order of the Board of Trustees, made on the 6th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, No. 228 Front street, San Francisco, Cal., by Jones & Dendixen, auctioneers, on Monday, the 26th day of March, 1866, at 3 o'clock P. M., to pay the delinquent assessment, together with costs of advertising and expenses of the sale.

E J. BRINKHOUSE, Secretary.

Office, No. 228 Front street, San Francisco, Cal. m10

Walipi Gold, and Silver Mining Company, Moss Lode, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that the Annual Meeting of the stockholders of the Walipi Gold and Silver Mining Company, will be held at the office of the Company, No. 320 Washington Street, San Francisco, ON WEDNESDAY, March 21, 1866, at 12 o'clock M. Trustees will be elected, and other important business transacted.

feb24-4w H. B. CONDON, Secretary.

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of February, 1866, an assessment of two dollars ($2) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 210 Pine street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up stairs, San Francisco. mar 3

THE DIAMOND HUNT AT OWYHEE.—The Owyhee *Avalanche*, speaking of the progress of the diamond excitement in that vicinity, says:

From recent remarks we have heard, confidential confahs seen among owners of claims, letters received from San Francisco, and a sudden stampede for the district, we do not think we can err much in saying that the recent diamond *furore* is proving a magnificent reality. In truth, the actual existence of diamonds in our country has at no time heen douhted hy our hest informed citizens who gave the suhject careful attention. Many men delight in crying down the new discovery; some scout it hecause they have neither the intelligence nor energy to ascertain truth, and wish to assume a species of prominence. Diamonds, especially in their crude state, would not he picked up in the street hy one man in a hnndred—more likely one in a thousand. How ahsurd and stultifying to pronounce a discovery a humhug without heing ahle to give a sensihle reason therefor. A great auxiliary to success in husiness is secrecy, and the more vital or valuable the ohject sought the greater the secrecy. It is for this reason we believe the present agitation to he founded on anthoritative knowledge. A gentleman who has given the suhject studious attention informs us that diamonds of the first water have heen found during the recent excitement, and that not a reasonable douht exists as to their plentifulness. It has been our aim to represent facts not fancy, and accordingly have kept our eyes and ears open, and have thus become convinced that Owyhee county is rich in diamonds. Without these, we have the richest known mineral region in the United States, and it would he folly to get up false impressions when the merit our camp possesses is almost excessive.

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. THE MINING AND SCIENTIFIC PRESS PATENT AGENCY has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

FOR SALE.

Owing to the great distauce from our point of manufacture, we offer for sale the State Right of California for our

Patent Boring Tools for Artesian Wells,

Illustrated upon the first page of this paper February 17th. These Tools are now in use in the various Oil Regions of Pennsylvania, Ohio and Virginia; and although but just introduced, are universally approved and admired, and bid fair to become eventually the most popular tools in use. We shall close without reserve to the party sending us the highest bid, to whom we will mail a complete set of Drawings, copy of Circulars, etc.

Address, fully,

A. A. WILSON,
Morgan Iron Works,

7v12tf Foot 9th street, East River, New York City.

536 Clay Street. PAPER WAREHOUSE AND Printers' Materials. CHAS. F. ROBBINS & CO. 538 Clay Street.

10-v12

GEORGE E. BROWN,

(Late Assistant Examiner in the U. S. Patent Office,)

HAVING RESIGNED THAT POSITION AFTER A TENure of office of eighteen months, offers his services to

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He will make Preliminary Examinations in the Patent Office, with a view to ascertain the Patentability of any invention that may be submitted to him for that purpose; will prepare the necessary papers for those who wish to make Applications for

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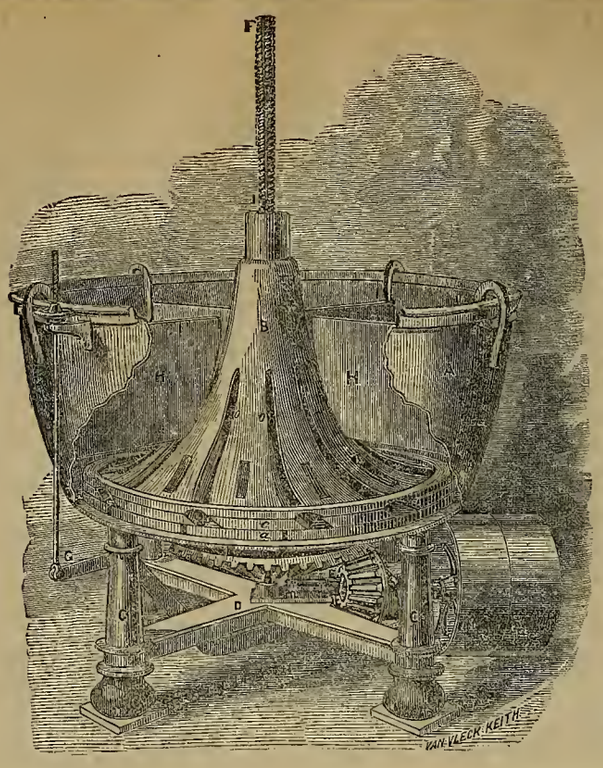

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and o, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers heing of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hnndred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to he amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its hecoming coated with any foreign substances, after having heen hurnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to auy other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,
WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

WHEELER & RANDALL.

SAN FRANCISCO, June 13, 1865.

LICK HOUSE,

Corner of Montgomery and Sutter streets,
SAN FRANCISCO.

S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests. 15v11

INTERNATIONAL HOTEL,

K Street, between Third and Fourth,
SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

BRANNAN HOUSE,

(Formerly Vernon,)

J street, between Front and Second streets,
SACRAMENTO.

FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m **MRS. J. DUNN, Proprietress.**

WHAT CHEER HOUSE,

SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m **A. J. SENATZ, Proprietor.**

The Excelsior Hat

—OF—

SAN FRANCISCO.

Paris, New York and London Styles

For Spring and Summer, 1866,

Will be introduced

SATURDAY.....MARCH 3

—AT—

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Hat Manufactories,

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OUR STYLE IN MOLESKIN, for this season, is, we feel confident, the SUPERLATIVE OF ELEGANCE AND FINISH; our MERINO FINAUD and ST. CLOUD the most successful result of Parisian taste.

Especial attention also deserve our
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CHESTER,
CRESCENT,
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DERBY and
CLARENDON RESORTE.

☞ Call and see them. 9v12-3m

MINING PROPERTIES.

PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California Street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble. 1v12

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,

No. 602 Montgomery street, San Francisco.

EXCLUSIVE AGENT

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AMERICAN WATCH FACTORY.

A large assortment of these

Superior Watches,

In Gold and Silver Cases,

Constantly on hand, and sold at Factory prices. Also,

ENGLISH AND SWISS WATCHES,

Imported directly from the Manufacturers.

The American Company are now making

VERY FINE WATCHES FOR LADIES.

☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

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AT QUINCY HALL,

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19v11-3m

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Photographic Stock, Etc.

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WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco March 6, 1865. 11v10-tf

CHARLES BERNARD,

MANUFACTURER AND DEALER IN

Family Chartres Coffee,

AND SPICES OF ALL KINDS,

No. 707 Sansome street, cor. Cold, bet. Jackson & Pacific.

First Premium Awarded

BY THE MECHANICS' INSTITUTE,

FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to. 16v11-3m

WE ARE NOW OFFERING

OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LOW PRICES.

J. R. MEAD & CO.,

8v10 Cor. of Washington and Sansome streets.

THE PRESS is a large, sixteen-page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

THE NEW METAL THALLIUM.—This new metal, which was discovered by William Crookes, of London, has lately been described by the discoverer in the *Chemical News*, and preparations of it have been placed in the Great Exhibition. Thallium in most of its physical properties, resembles lead. It is not so white as silver, but when freshly cut, it presents a brilliant metallic luster. It is soft, malleable, and easily cut with a knife, and it marks paper when rubbed upon it, leaving a yellowish streak. It has a great tendency to crystalize, and ingots of it crackle like those of tin when bent. To flame it communicates a deep green color, and in the spectrum, according to the researches of M. M. Bunson and Kirchoff, its single green ray is as sharply defined as the yellow ray of sodium. Thallium rapidly tarnishes in the open air, and it becomes covered with a thin pellicle of oxide, like the oxide of tin—preserving the rest of the metal from oxidation. Its oxide is soluble, alkaline in its nature, and it has a taste and smell similar to potash. Sulphuric and nitric acids dissolve it under heat, and it burns in chlorine gas heated to 200°. It exists in many of the pyrites that are used in the manufacture of sulphuric acid.

TELEGRAPHS AND THE CHOLERA.—A. T. Hay, a veteran telegraph operator, says that during the period of cholera in 1849, and for several years, he was connected with the telegraph lines of the West, and during tho whole time he never knew of an operator dying, or even being attacked with the cholera.. The reason given is that in telegraph offices there is always the maximum of ozone, or highly electro-negative oxygen, combining with the non-ozonized oxygen, and thereby rendering the atmosphere pure. Ozone is destructive to malaria, and is highly beneficial to health in times of cholera or other malarial epidemics. There can be but little doubt but that the cholera will visit the United States during the coming summer, and then further observations can be made, and if telegraph offices are exempt from its ravages, they will become such popular institutions that everybody will have one.

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1864, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

A Good Financial Weekly.

The Stockholder:

MONITOR OF FINANCE AND INDUSTRY,

Is published every Tuesday Morning,

At 72 William street, New York,

—GIVING—

Quotations of all important Bonds and Stock Securities in the United States; GOVERNMENT, STATE, CITY, BANK, INSURANCE, PETROLEUM, MINING, and other miscellaneous Joint-Stock Organizations, with the Financial Statements of the same; Notices of Payment of Interest and Dividends—

fact, all matters that can be of interest to Security-holders.

Its columns will be found replete with important and useful financial information.

The Quotations given are correct, and may be relied upon either for the purchase or sale of Bonds or Stocks.

THE STOCKHOLDER is the *only strictly financial paper published in the United States.*

TERMS, FIVE DOLLARS PER YEAR.

All letters should be addressed,

GEO. M. NEWTON, Publisher,
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Mining and Scientific Press

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No. 505 Clay street, corner of Sansome.

CERTIFICATES
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STOCK
—FOR—
MINING
—AND—
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Stock Certificates of all kinds embellished with wood cuts and electrotype engravings. We devote special attention to the execution of all kinds of work required by Mining Companies, Machinists and Manufacturers.

Machinery.

HUNTER'S

PREMIUM

CONCENTRATOR, AMALGAMATOR

AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERATION daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; no trace of ground mercury and scarcely a trace of metal passed off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed All orders and any information required, address,

ANDREW HUNTER,

Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD'S

Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts conveniently for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continually; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crail's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

BLAKE'S

QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Hepburn & Peterson's

AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th.

[Illustrated in the Mining and Scientific Press, April 8th, 1864.] HEPBURN & PETERSON.
nov8 3m*

McCOMB'S

CUMULATIVE POWER PRESS

AND

ARROW TIE.

E. C McCOMB, Agent.

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23v10 3m

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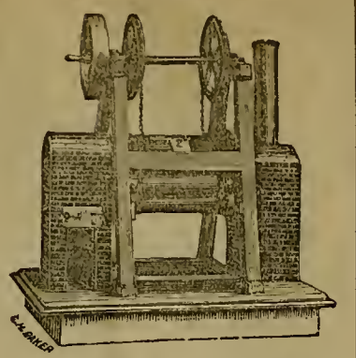
PREMIUM SILVER MEDAL

TO BRUCKNER'S

MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
12v11 416 Market street, San Francisco.

HUNT'S

IMPROVED WIND-MILL.

THIS WIND-MILL IS RAPIDLY taking the place of all other Mills on the Pacific Coast. These Mills are so simple in their construction, that when once built, they can be put in order by almost any person; and when once in order they will run for years without repairs.

Prices, from $50 to $1,000.

ROUND AND SQUARE WATER TANKS BUILT TO ORDER.

HUNT'S PUMPS

Are admitted to be the best in the Market for Wind Mills, being built expressly for that purpose. They can be set, and taken apart with a common wrench, and are very easily repaired.

HUNT'S ENDLESS CHAIN

HORSE POWER

For Sawing Wood.

ALSO, THE

Self-Regulating Horse Power

Is so arranged as to give a steady motion, and is calculated to be used for turning Wood, Iron or Brass, also for Scroll or Circular Sawing, and is fully equal to Steam for any light work. The above Machines are built of the best materials, and made as Durable as Wood and Iron will make them.

ALL WORK WARRANTED.

☞ For further Particulars see small circulars. ☜

E. O. HUNT,

No. 28 Second Street, and 108 & 112 Jessie Street, San Francisco. 26-3m

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of Weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

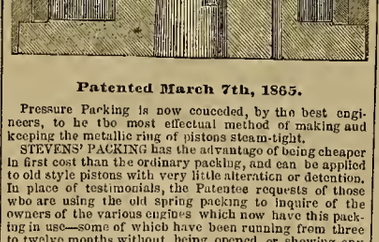
Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mill's.

For sale by **TREADWELL & CO.,**
3v12-3m Corner of Front and Market streets.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df **ANDREW STEVENS.**

FOR SALE!

A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERFECT Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

VARNEY'S

PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the **PACIFIC FOUNDRY,**
1v1 San Francisco.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

HUNT'S PATENT

Circular Sweep Horse-Powers,

For running Churns, Washing Machines, Grindstones, pumping water, sawing wood, and other light machinery. Price, $100, at the Factory.

HUNT'S PATENT SELF-REGULATING TREAD HORSE-POWER is superior to any machine of the kind in the market. Price, with Governor, all complete to set to work, at the Factory, $300. Manufactured by

E. O. HUNT,
7v10 28 Second street, San Francisco.

Important to Miners.

NEW PATENT ROASTING PROCESS.

I AM NOW PREPARED TO OFFER TO THE MINING community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A Furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day,

MORE COMPLETELY AND CHEAPER

Than any other Process. All the Sulphur is saved, by being converted into Bisulphide of Carbon, which is a valuable product, and will pay nearly all expenses.

For particulars, apply to

J. MOSHEIMER,
26v11-3m 423 Washington street.

QUARTZ OPERATOR'S

HAND BOOK

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,

Authors and Publishers.

BOUND IN CLOTH—144 PAGES, DUODECIMO.

THE QUARTZ OPERATOR'S HAND BOOK is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

The work also contains an original and highly interesting discussion of the tracery and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable QUARTZ MINER'S HAND BOOK.

The Table of Contents of this book will be found on pa 415 of the MINING AND SCIENTIFIC PRESS of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11

Removal.

The Office of the MINING AND SCIENTIFIC PRESS has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive JOB PRINTING OFFICE.

San Francisco, April 10th, 1865.

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the MINING AND SCIENTIFIC PRESS. 19v11tf

MILLS IN REESE RIVER MINING DISTRICT.

The Reese River *Reveille* still insists that our correspondent, "J. H. Ormton," is in error with regard to the number of mills in actual operation and in course of construction in Reese River District, and gives the subjoined as a correct list. The *Reveille* is correct in supposing that the only aim of the PRESS is to arrive at the truth. We give that paper the benefit of its own figures:

MILLS IN REESE RIVER DISTRICT AT WORK OR READY TO WORK.

Name.	*Stamps.*
Confidence	10
Midas	15
Keystone	20
Union	10
Long Island	5
California	10
Ware	5
	75

INCOMPLETE AND IN COURSE OF ERECTION.

Name.	*Stamps.*
Empire	10
Colmx	20
Manhattan	20
Boston and Nevada	10
Silver Hill	5
Pioneer	20
	85

Whole number of stamps in the Reese River District, complete and in the course of erection, 160. The Clifton mill, of four stamps, was long since abandoned.

MILLS IN AMADOR AND BIG CREEK.

Butte, Amador District	8
Metacom, "	20
Vanderbilt & Coral, Amador District	crusher
Eureka, Big Creek District	10
Parrott, " "	16
Phelps, " "	10
Lippett, " "	(or 5 stamps, abandoned)
	64

It will he observed that of the 160 stamps in the Reese River District, 75 are now ut work or ready to work, and the remaining 85 stamps are in the course of erection, and will in all prohability be finished and crushing ore between this spring and the ensuing fall. But at the present time several of theun are no more mills than naked walls and piles of building materials constitute houses. While we reasonably hope to have hundreds of mills reducing the ore from hundreds of mines in this district, the foregoing table exhibits their present actual number and condition.

IS THERE EMERY IN CALIFORNIA?—We have received from Mr. J. F. McKean, a specimen consisting of a mixture of minerals, very much resembling emery. The mineral is found in Sierra county, near the dividiug line between that county and Yuba, and not far from Camptonville. We understand that it has heeu employed in that vicinity, instead of the imported article, and that it has been found to answer a very good purpose. We have submitted the sample sent us to Prof. Blake, for a careful examiuatiou, and shall communicate the result of that examination in a future issue.

CLOTHING.—One of the largest assortments of ready-made clothing on the Pacific coast may be found at Quiucy Hall, on Washington Street, iu this city. This establishment also makes clothing to order. Call and see their clothing made from California cloth. You will find uo shoddy in *that*.

THE STOCKBRIDOE MINING CO., of Grass Valley, working on the dip of the old Watt vein, on Massachusetts Hill, are now taking out about fifty tons of very promising rock, daily. They will soon be able to take out one hundred tous per day.

Constitution and By-Laws
— OF —
Mining and Prospecting Companies

Elegantl printed, with care and dispatch, at the office of the **Mining and Scientific Press.**

☞ Orders from tho interior faithfulv'atteuded to.

PETROLEUM STOVES.

A MOST USEFUL INVENTION FOR ALL manner of COOKING and for IRONING, without any litter, as ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Cooking by them is divested of its disagreeableness, and hecomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,
Proprietors for California.

San Francisco, March 3d, 1866. 10-v12

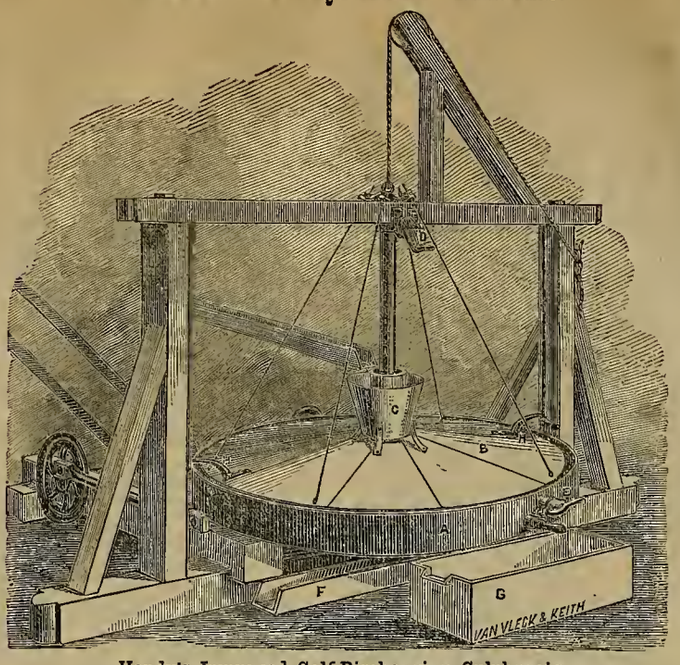
day of February, 1865, in United States gold and silver coin,

Nevada District, Nevada County, California,

Furnished Room to Let,

ON MASON, BETWEEN CLAY AND Washington streets, overlooking the Bay. Inquire at this Office. 11-v12

NOTICE TO QUARTZ MINERS.



Hendy's Improved Self-Discharging Sulphurets

PRATER CONCENTRATOR

Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the Improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " "
U. S. REESE RIVER MILL, Austin, "
CARROL & ASPINWALL MILL, Reese River, Nevada.
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
BLUE LEDGE MILL, near Spanish Flat, El Dorado Co.
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:
One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.
☞For explanation of the above engraving, and other particulars, send for a Circular

JOSHUA HENDY,
8v12tf No. 402 Montgomery street, Room 3, 4th floor.

MININ G RECORD
—AND—
INTELLIGENCE OFFICE.

We have established, in connection with this paper, a Mining Record and Scientific Intelligence Department, whore persons desirous can obtain information with regard to any particular Mine or Mining District. All information already in our possession will be furnished free of expense, on application at this office.

CONSULTATIONS, ETC.

Being in direct and constant communication with the best and most experienced Metallurgists and Practical Chemists in the country, we are prepared to hold consultations and furnish advice on all matters relating to Metallurgy and the application of Chemistry to the Arts. Manufacturers and others about to enter upon branches of industry comparatively new or but imperfectly understood, will do well to call upon us for advice. When desired they will be put in communication with such persons as will be best able to give them the latest and most reliable information and assistance upon such matters as they desire to be informed upon. No charge will be made by us for any service we may render in such cases. When experiments are required, or valuable information is sought, which must be obtained from EXPERTS, we shall leave them to make their own pecuniary arrangements with parties to whom we may introduce them; it being our aim to merely bring them in contact with reliable men, so that they may thereby avoid the immense pecuniary losses which are so frequently incurred in this country by pretentious charlatans, who manage to ingratiate themselves into the favor of those who are seeking for information upon scientific matters, or intricate and not generally understood branches of business.

Persons about to erect furnaces for Metallurgical or other purposes; and who may themselves not be personally acquainted with the work in contemplation, will find it to their advantage to consult us previous to entering upon any such undertaking.

MINING EXAMINATIONS AND REPORTS.

Persons desirous of obtaining full and reliable reports upon Mines or Mining Properties; or Survey and Maps of the same, etc., will do well to make application for such service through the especial agency connected with this office.

ASSAYING.

All orders for assaying will be promptly and faithfully attended to. Orders from the mines especially solicited.

☞ All supposed new minerals or organic substances will be reported upon free of expense to such parties as will send the same to this office free of expense of transportation; and when proper and consistent with the wishes of parties interested, notices of the same will be given through the columns of the MINING AND SCIENTIFIC PRESS, and the contributions placed on exhibition in our cabinet

DEWEY & CO.,
Publishers Mining and Scientific Press, 505 Clay Street, San Francisco.

A CHOICE ADVERTISING MEDIUM.

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Although we are receiving many additional subscribers to our list in response to tho new enterprise in which wo havo engaged, we cannot expect, with the present high cost of printing paper, and our very low terms, to receive suffieient money from subscriptions alone to furnish as good a journal as we have determined to publish for our patrons; so we have widened tho eolumns of tbe paper and adopted smaller type, wbich admits moro letters in each line, and many more lines in each column of the paper, that we may havo room for a few more select advertisements in tho COMPANION *without decreasing in the least* any class of reading matter.

Our little journal circulates in more families than any other weekly published in San Francisco. No advertisements of the least objectionable character will be received, and as but a limited space will be devoted to this department, our young friends can safely inform their storekeepers, and other business acquaintances of these important facts for tho benefit of tho paper and all conecrned.

Remember, only a few columns of our regular issue will be devoted to advertising, and the moro profitable that class of patronage is made the greater will be the outlay upon our reading columns.

DEWEY & Co., Publishers.
February 23d, 1866.

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Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

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The following Steamships will be dispatched on dates as given below:

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MINING LAWS AND FORMS.

Third Edition revised and enlarged.

Compiled by H. B. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete; Digest of Decisions of the Supreme Court Forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

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Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors. | SAN FRANCISCO, SATURDAY, MARCH 24, 1866. | VOLUME XII. Number 12.

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THE PETROLEUM INTEREST.

We learn, from private sources, that the Bennett Well still continues to flow water and oil at about the same rate as heretofore reported. The work of boring is still going on, and, it is said, that the yield of oil perceptibly increases.

The Tompkins company, at Pescadero, who have been for some time prospecting the surface sand-rock on their ground, have recently put up a new and larger retort, from which they are obtaining still more satisfactory results—and much better than they had anticipated. Their rock is said to yield about 40 gallons of, crude oil to the ton. They find, in practice that with three men, they are enabled to collect and work two tons of rock a day; thus producing, at a cost of $7.50, eighty gallons of oil, worth in this city forty cents per gallon. We have thus—

80 gallons of oil, worth	$32 00
Labor of producing the same	$ 7 50
Freight and cost of packages	12 00— 19 50
Profit	$12 50

Twelve dollars per day profit on the labor of three men, with only the investment of a common ⊃ gas retort, is a pretty good business, especially when the number of men and retorts may be indefinitely increased. We may be mistaken in the figures; but we have endeavored to give them correctly. Pennsylvania has recently been boasting of her newly found wealth in the immense extent of her oleaginous surface rock, or sand, recently discovered. If we are not misinformed, California also possesses an inexhaustible quantity of such rock equally as rich as any found in the Atlantic States. We can make a good thing out of this, even if we don't get flowing wells.

New Patent Sluice Box.—R. E. Washburn, of this city, has just received, through the Mining and Scientific Press Patent Agency, Letters Patent of the United States for a new improvement in sluice boxes, which consists of an easy and effective method for saving the precious metals, in sluice or hydraulic mining, by placing one or more boxes along a flume, each box having an inclined floor, upon which is placed tapering bars or teeth, arranged in a row, at suitable distances. Underneath the upper end of this box is placed a hollow cast-iron box, with riffle bars placed across it; in this box quicksilver is placed, for the purpose of amalgamating the metals, the whole being closed by means of a door, which may be secured by a lock. By this arrangement no quicksilver can escape, or amalgam be stolen, as is often the case, by robbers, for the door may be locked, or the box be removed to a place of safty at night.

BREAR'S IMPROVED VALVELESS STEAM OR AIR PUMPS.

The pumps, illustrated in the annexed engraving, are improvements upon a former patent of Mr. Brear's, granted April 1st, 1862, and reissued October 27th, 1863, and which is now the property of a Company; but is not designed to work coarse gravel.

Fig. 1—LITTLE GIANT.

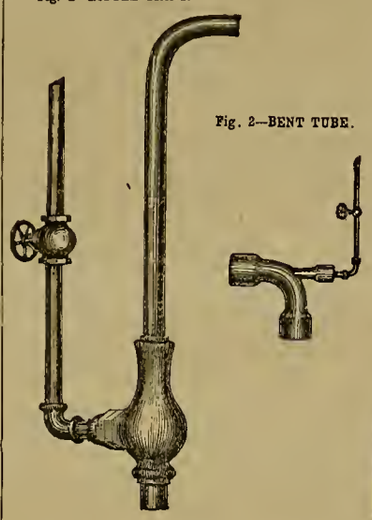

Fig. 2—BENT TUBE.

Following is the inventor's description of the pump, and what he claims to be its capacity:

Figure 1 is particularly designed for the purpose of forcing water or other liquids. Fig. 2 is for water, or for sand and gravel with water, which may be required to be raised or displaced.

Figure 1, or the Little Giant, is now at work in large numbers, bilging steamboats, etc., in and about New York, Boston, Philadelphia, and other harbors. It can be used to elevate water in breweries, distilleries, sugar refineries, for pumping out cellars, irrigating land, etc.; or where water or other liquids are required to be raised upwards. It may be employed for filling locomotive tanks or tenders, by placing it permanently in wells, rivers, or ponds convenient to the roadside, and connecting it, by means of a steam hose or swing joint, with a stop cock on a locomotive boiler, whenever it is required to take in water; or it can be carried upon the tender ready to be used at any station or place where water can be obtained from any source.

This pump will bilge a low or high-pressure steamboat, and deliver the water at a rapid rate. It is also useful to sweeten a boat; as fresh water can be let into the bilge, and delivered quickly by its agency, by which means the boat may be kept sweet and healthy. If there is no water in the bilge, by letting the steam through it, foul air will be removed, such as is consequent from air being confined under the ceiling, between the planking. By connecting a tube to the outlet pipe, and leading this under the grates or fire of the boiler, and shutting off a cock in the outlet delivery pipe, it will be found to answer the purpose of a blower, on account of the air passing with the steam. The combustion is thereby greatly increased, saving coal and economizing fuel by getting a larger per centage of heat from a less amount of coal. By changing two cocks it is ready for bilging again, or *vice versa*.

The great rapidity with which it delivers water is wonderful. Its advantages are that sand, slum, and such like substances do not obstruct its operation. Its simplicity also recommends it; there being no working parts, it cannot get out of order.

Figure 2 is an open pipe from end to end, and is designed for mining or wrecking, raising sunken vessels, or displacing sand or mud, forming bars in navigable streams or rivers, to improve navigation. It will work submerged, or will raise sand, gravel, mud, or slum from the bottom, from any depth up to and above the surface of the water, whence it can be conveyed away to any desirable point. It can be used on sand bars, or in quicksands, and in or on the beds of rivers. It will drink and deliver up into a sluice, or other apparatus set upon a level surface, sand, gravel, or slum, with water. Several hundred tons of such matter, per day of ten hours, can thus be moved with one hundred pounds pressure applied to it. It will also wreck a steamboat that carries a high pressure, and is invaluable for that purpose; and no steamboat should be without them, especially where snags and other dangers exist; for two of the four-inch sizes will keep a vessel with a large opening made by such, above water with ease, thereby saving life and cargo. Also, by having one ready with hose, a sinking vessel can be freed from water and towed into port in safety, when the pump is applied as above described for use on railroads. Further particulars can be obtained from the patentee, or from the proprietors of the Miners' Foundry, 245 First Street, where the pumps are on exhibition and kept for sale.

Mr. Brear is sole owner of the improvements and offers for sale State and county rights, reserving to himself the right to manufacture, giving parties who purchase rights the benefit of one-half the price list. He has come amongst us for the special purpose of introducing them here for mining and other purposes. Mr. B. is also the first inventor and patentee on record of any apparatus of this kind. The improvements herewith illustrated were patented October 25th, 1864, and August 29th, 1865.

"Transmutation of Metals."—We would invite attention to an article, in another column, on the transmutation of metals—especially to the concluding paragraphs, giving certain formulas, etc. The main portion of the article is a translation from a French paper received by the last steamer. The parties named as having pursued the curious investigations described, are of high scientific standing in Paris. We give the article for what it is worth. The experiments can and doubtless will be tried in this city.

The Hydrostatic Mill.—The Amador *Ledger* says that the quartz mill, driven by one of Hansbrow & Redding's hydrostatic engines, and erected by Judge Clark, Mr. Nichols and others, at Irishtown, is now in successful operation, and fully meets the expectation of its enterprising proprietors.

OUR FOUNDRIES.

Work at the principal foundries in this city is brisking up, and we are repeatedly told by different proprietors that the prospects for full orders for the approaching season are unusually promising. New quartz mills seem to be the leading inquiry.

THE GOLDEN STATE IRON WORKS

Have shipped this week a fine lot of machinery for the New York Moss Association, to Arizona. Chas. L. Strong is the new Superintendent of this company. The machinery, above mentioned, comprises one 40-horse-power engine, 12 x 24-inch cylinder—one of the best ever turned out in this city; two five stamp batteries, with mortar independent of the framework; three of the Wheeler & Randall tractory pans; two Knox pans, two 7-foot separators; one large portable 10-ton derrick; framework for tanks, mills, etc., complete. The Moss Association have exhibited good judgment in securing the manufacture of their machinery here, in place of attempting to procure suitable work in New York. Under the present management we shall expect to hear favorable reports from the mine.

The Golden State Works are now finishing up a large propeller, and other steamboat work. They are also manufacturing a large number of Dunbar's Steam Packing Rings, which are being introduced into all the locomotives on the San Francisco and San Jose Railroad.

We shall take occasion to visit other foundries and report further from week to week.

Meeting with Success.—We are credibly informed that Leffels' American Double Turbine Water Wheel is being successfully introduced in Oregon and other northern sections of this coast. It is also stated that the principal establishment engaged in the manufacture of these wheels in the Eastern States has been driven with work recently. Messrs. Knapp & Grant, commission merchants, at No. 310 Washington street, have recently been appointed agents for the sale of the American Double Turbine Wheels. They are also agents for Leffel's Patent Lever Jacks, which are very useful and efficient articles in that line. Further information will be obtained concerning the above named instruments by reference to our advertising columns, or by calling upon the agents.

The Attention of Mining Corporations is especially called to the fact that Senator Robinson's bill, concerning assessments of corporations, has passed the Legislature, and will doubtless become law within a few days by receiving the approval of the Governor. It is an important and desirable improvement on the old statute, and will be hailed with satisfaction by all parties interested in corporations.

Properties of Bodies.—We are indebted to the "Annual Circular of the Miners' Foundry, for 1866," now being printed at this office, for the very excellent and useful table giving the various properties and characteristics of a large number of such bodies as most commonly occur in nature.

An iron tank, with a capacity of 57,000 gallons, is building at New Bedford, Mass., for a petroleum company. It will take quite a strike to fill it.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

BY W. A. GOODYEAR.

[continued from page 162.]

Let us now consider what takes place when the upper plate revolves.

I will first take the simpler case of plane circular plates of uniform hardness.

From the definitions given upon page 102 of the Hand Book, it follows that the measure of the grinding effect produced by two rubbing surfaces is the product of the area rubbed, into the normal pressure per unit of area, into the distance passed over.

Moreover, the *wear* at any particular point of the surfaces is proportional to the product of the pressure per unit of area at that point, into the distance passed over by the point; *provided*, as above, that the form of the surfaces allows this law to hold true, which it evidently does in the case under consideration.

Now, in plane circular plates, the pressure perpendicular to the surfaces of contact (the vertical pressure) is constant, so long as they remain at rest. Represent this pressure per unit of area by R.

Suppose now that the upper plate begins to revolve. The distance then passed over by any point of the surface is proportional to y, if y represents the radius of the circumference described by the point. The *wear* at this point, then, would be proportional to R y, if the pressure remained constant, and the apparent result would be that such plates would wear away more rapidly at the circumference than nearer the center, leaving them of such a form that they would touch each other only at the center, while the rest of the surfaces would be separated by a space increasing from the center outwards.

But this is evidently an absurd and impossible result of grinding; for surfaces cannot wear each other away where they are not in contact. Yet, this is the assumption upon which certain calculations of grinding effect in the Hand Book are based.

So far from this being true, on the contrary, the plates *actually* wear down evenly and uniformly over their whole surface.

When the motion begins, therefore, the vertical *pressure*, though originally constant, does not remain so, but *must* accommodate itself to the new condition of things, and vary, therefore, in such a manner that its product into the distance passed over at each point shall be constant. It must in this case, therefore, vary inversely as y, or directly as $\frac{1}{y}$.

Let now the actual pressure per unit of surface at the circumference, when the plates are in motion, be represented by P. Represent, also, the pressure at any point whose radius is y, by P′. Then if a denote the radius of the plates, we have

$y : a :: \mathrm{P} : \mathrm{P}'$, therefore,

$$(62) \qquad \mathrm{P}' = \mathrm{P}\frac{a}{y}.$$

The distance passed over by the point in one revolution is $2\pi y$. The grinding effect is, therefore, represented by

$$(63) \int 4\pi^2 \mathrm{P}\, a\, y\, dy = 2\pi^2 \mathrm{P}\, a\, y^2 + \mathrm{C}.$$

Taking this integral between the limits 0 and a, we have the total grinding effect by one revolution of the plates

$$(64) \int_0^a 4\pi^2 \mathrm{P}\, ay\, dy = 2\pi^2 \mathrm{P}\, a^3.$$

Suppose, now, that the plates instead of being of uniform hardness, increase in hardness from the center to the circumference in the ratio of the increase of the radius, or in other words, that their hardness varies as y.

The actual wear of the plates still remains uniform, for the same reason as given above, viz., that plates cannot wear where they are not in contact. But as now, what may be called the tendency to wear at any particular point is decreased by the increasing hardness of the plates in precisely the same ratio as it is increased by the increase of the radius, and, therefore, of the distance passed over, the conditions here not only allow, but require, that the *pressure* shall still remain uniform when the upper plate revolves. Call this pressure P. The grinding effect then, for a single revolution, is represented by

$$(65) \int 4\pi^2 \mathrm{P}\, y^2\, dy = \frac{4}{3}\pi^2 \mathrm{P}\, y^3 + \mathrm{C}, \text{ and}$$

taking this integral between the limits 0 and a, we have

$$(66) \int_0^a 4\pi^2 \mathrm{P}\, y^2\, dy = \frac{4}{3}\pi^2 \mathrm{P}\, a^3.$$

Let us now consider Randall's Patent Grinding Plates, in which each *set* of rings is uniform in hardness throughout, but the inner set is only one-third as hard as the outer set, a being the outer radius of the plates, and $\frac{a}{3}$ the inner, and $\frac{2a}{3}$ the outer radius of the inner rings.

Let P denote the pressure at the circumference of the outer rings.

Taking, then, the integral in (63) between the limits $\frac{2a}{3}$ and a, we have the grinding effect of the outer rings in a single revolution,

$$(67) \int_{\frac{2a}{3}}^{a} 4\pi^2 \mathrm{P}\, a\, y\, dy = \frac{10}{9}\pi^2 \mathrm{P}\, a^3.$$

Since the outer rings are of uniform hardness, we have from (62) the pressure on the inner circumference of the outer rings, $\mathrm{P}' = \frac{3}{2}\mathrm{P}$. The actual wear must, necessarily, be uniform on both rings, else the plates would not remain in contact, which they must do in order to grind at all. Therefore, since the inner rings are only one-third as hard as the outer ones, we have the pressure on the outer circumference of the inner rings, $\mathrm{P}'' = \frac{\mathrm{P}}{2}$. Therefore, for the grinding effect of the inner rings in a single revolution, we have

$$(68) \int_{\frac{a}{3}}^{\frac{2a}{3}} 2\pi^2 \mathrm{P}\, ay\, dy = \frac{1}{3}\pi^2 \mathrm{P}\, a^3.$$

The total grinding effect of these rings in a single revolution is, then, $\frac{13}{9}\pi^2 \mathrm{P}\, a^3$.

[To be Continued.]

Elegant Testimonial.—We had the pleasure, a few days since, of examining an elegant and appropriate testimonial, prepared by order of the Andisonian Society of this city, to be presented to the Rev. Dr. Peck, of the Howard Street M. E. Church, previous to his departure for the East, which will take place on the 10th of April. The testimonial consists of a copy of the Bible, elegantly bound, expressly for this purpose, and containing within its folios sheets of a photographic album, pierced for sixteen photographs, which are to be filled up with the pictures of the present and past officers of the Association, sixteen in number. Upon the front lid of the Bible is the following inscription:—"Presented to Jessie T. Peck, D.D., by the Addisonian Society. March 23d, 1866." The cost of the volume was $40.00. The doctor was the founder of the Association.

[Written for the Mining and Scientific Press.]

From Our Regular Correspondent.

[Continued from page 163.]

The lead which was the object of our visit is located one and a half miles south of the Mina Rica, between the Middle and South Forks of the Mokelumne, and is consequently in

THE SANDY GULCH DISTRICT.

This is the only mine on this side of the Middle Fork of which I had any opportunity of making a personal examination. It is known as

THE SWEDENBORG CLAIM,

And consists of a location of 2,000 feet in length, on a ledge lying in a slate formation, which bounds the granite range of West Point on the eastern side. The vein was worked by Mexicans some six years since, and was then opened on the surface for about 300 feet in length, and proved to be very rich down to the water line, which here comes in at twenty five feet. The work done by Messrs. Anderson & Smith, the present owners, consists of sinking two shafts, one twenty-nine, and the other thirty-four feet deep, about thirty feet apart, and connecting their bottoms by a straight inclined drift. Mr. A. says that on the bottom of this drift, (it contained water at the time of our visit), the vein was two feet wide at the bottom of the deeper shaft, and fourteen inches at the other, and the large blocks of solid quartz and sulphurets, lying near, were proof incontestible of the vein being at least of that size. Below the water line, the quartz was for a while perfectly white and apparently barren, but after sinking in this about three feet, they struck rock which is nearly half sulphurets, galena, iron and copper pyrites, and what appeared to be traces of arsenic, in solid masses of hundreds of pounds in weight. Some of this rock was exhibited at the late Mechanic's Fair at San Francisco, by Mr. Lidstrom, and was pronounced valuable, though no one seems to know the exact result of any assays or workings. Mr. Mosbeimer is said to have assayed some of the sulphurets, which gave as high as $600 per ton, and a working test made by some one in the city is put down at $45.85.

This district (Sandy Gulch) like West Point, is abundantly supplied with wood and water, the latter being supplied by the ditches at from three to five cents an inch, miners' measure for twelve hours.

I am indebted to Mr. Kadish, owner of one of the ditches which supplies the district with water, for notes on three ledges, which he describes as being owned by Dr. Foote of Camanche Camp, and which I was prevented by want of time from visiting personally. They are the Pioneer sulphuret lead, which is opened to a depth of thirty feet, and shows an immense mass of sulphurets of iron and lead from four to five feet in thickness, lying in a northwest and southeast direction, in granite walls, and rock from which, is said by Mr. Kadish, to have paid $25 per ton in an ordinary stamp mill; the Cedar Gulch, two and a half feet wide, and said to pay $100 per ton, and the Sailor Flat, which has been opened seventy feet deep, and is said to pay $30 per ton. No work is at present being done upon these claims, as the owners are scarce of capital and desirous of selling them. They are located within one-eighth of a mile of each other, and would, if they continue as rich as they now are represented to be, form a very desirable investment. The ground claimed on each is 2,000 feet.

The Hidalgo lead is located near Sandy Gulch, and is owned by some Mexicans who claim 1,400 feet. I am informed by Mr. K. who owns a small interest, that the ledge is thirty inches wide, and that the rock now taken out is yielding $120 per ton in arastras.

HARRIS'S MILL

Is located in the village of Sandy Gulch. It is connected with a saw-mill, and both are driven by the same wheel, a splendidly built overshot, thirty feet in diameter, and by far the best wheel that I have seen in this part of the county. The mill contains a battery of five stamps, each of 500 lbs. weight, and capable of crushing four and a half tons of hard rock to very fine powder every twenty-four hours. As much gold as possible is first caught by mercury in the battery, after which the blanket washings are ground and amalgamated in "Brevoort pans," five of which are in use in the mill. It is the intention of the Messrs. Harris to introduce some one of the best approved concentrators instead of the blankets, as they will require less labor and attention. The price of crushing at this mill is $4.50 per ton.

At the request of parties in West Point and Sandy Gulch, who are interested in the mines of that district, I visited

THE BLUE MOUNTAIN DISTRICT.

A horse was furnished me by Mr. Oztarena of Sandy Gulch, and on Friday morning I left West Point in company with Mr. Zavale, of that place, who kindly consented to leave his business to become my companion and guide on the trip. A very pleasant ride of fourteen miles brought us to Blue Mountain City, the business center of the district, a town that once numbered its inhabitants by hundreds, and boasted two hotels, two livery stables and several stores, but which now contains twenty or thirty empty houses, and two occupied ones, with a population of just three. The first ledge opened in this district, and the only one on which work is now carried on, is

THE HECKENDORN,

On which work was commenced in 1863. The formation of the walls is diorite, which, in fact, is the prevailing rock of the district, intersected here and there by broad dikes or belts of "quartzite," as it is called here, a quartz rock noted for the regularity of its cleavage, and its compact character. A belt of this over 100 feet in width cuts off the Heckendorn vein at the south end of the claim of the Heckendorn company, and in tunneling through it, much of it is seen to show indications of silver. The course of the ledge is nearly north and south, with a dip to the westward of forty degrees, and as far as opened is from two to four feet in width, averaging at least thirty inches. The first tunnel run upon this ledge, was driven in a distance of 110 feet, on the ledge, and opened it forty feet beneath the surface. Below this tunnel a shaft has been sunk to a depth of sixty feet, the vein showing itself strong and clear all the way down. About 120 tons of ore taken from this shaft is now lying at the mouth of this tunnel, which is valued by Mr. Zavala, who has long been familiar with silver ores in Mexico, at $100 per ton. A small water mill was erected by the company last summer, but as the power proved insufficient it was given up. The mill consists of four stamps, and a Hepburn & Peterson amalgametor, driven by water power. Some thirty or thirty-five tons of ore were worked, which, paid, as I was told by Mr. Staples, $51 per ton in the pan. One and a half tons of the tailings were roasted by Judge Morris in an open wood fire, and ground in an arastra extemporized from the "settler" of the H. & P. amalgamator, and produced two bars of bullion, each over fourteen ounces in weight, and valued at six dollars an ounce. Mr. D. C. Staples, who is also a stockholder in the company, has been engaged during the past autumn and winter in running a tunnel to cut the ledge 100 feet below the first one. It has already reached a length of 100 feet, the extent of his contract, and it is believed that the lead can not be more than two or three feet ahead. Mr. S. has taken another contract for fifty feet more of tunnel, which it is thought will develop it sufficiently to ascertain pretty accurately its true value, when it is intended by the company to put up a good steam mill and go to work in earnest. The claim of this company is 1,200 feet in extent. North of the Heckendorn on the same vein is located

THE CELINA,

Claiming 3,600 feet. A shaft eighty feet in depth has been sunk by this company and a considerable quantity of ore taken out, which is almost exactly like that of the Heckendorn in every particular, being a white brittle quartz, plentifully charged with iron pyrites, and blue sulphurets of silver, besides showing occasionally some free gold. Extensions of this ledge are taken up for miles, both north and south, but as little has been done upon them, they need not be mentioned by name.

About one-fourth of a mile west of the Heckendorn, is

THE STAR OF BLUE MOUNTAIN,

On which a French company claim 3,200 feet. The course of the vein is northwest and southeast, and it was first discovered on the top of a steep ridge, which runs along past and back of Blue Mountain City. A tunnel has been run into the ridge a distance of over 300 feet, cutting the vein nearly at right angles, at a depth of 175 feet. The ledge is at least twenty feet wide, strong and well defined, and containing from four to six feet of fine looking silver ore, which is said to work over twenty dollars per ton, nearly all silver.

About four o'clock, Mr. Zavala returned to West Point, but prompted partly by a desire to see more of the wonders of the district, and partly by the earnest solicitations of Mr. Staples, I accepted of his hospitality for the night, and next morning resumed my observations.

The first claim visited in the morning was that of

THE HOOD HUNTER COMPANY,

Located one and a half miles southwest of Blue Mountain City. The claim of this company consists of 3,200 feet, on a ledge running north and south, and having a dip to the east ward of thirty-five degrees. A shaft has been sunk thirty-five feet deep, in fine looking quartz all the way. A drift has been run across the vein a distance of thirteen fe t, without finding the hanging wall, (the shaft follows the western or foot-wall). The rock near the surface was partially decomposed, and assayed $200 per ton in gold, but in going down, the quartz shows a very large percentage of auriferous galena, evidently very rich, though I was unable to learn the amount it assayed. Several extensions have been located on this vein, all of which show ore of a similar character.

THE LOYAL LEAGUE COMPANY,

Located two miles south of Blue Mountain City, claim 2,400 feet on a vein running north and south, which crops out in a gulch, some ten or twelve feet thick. But little work has been done, and the dip of the vein cannot be accurately determined, but it appears to be about sixty degrees to the eastward. The ore is similar in character to that of the Good Hunter, but is only found in streaks through the vein as yet, though it will probably be more abundant as it is explored to a greater depth.

THE IMPERATRICE

Is situated half a mile south of Blue Mountain City, and is opened by a tunnel between 400 and 500 feet in length, cutting the vein at a depth of from 300 to 400 feet, where it is about seven feet wide. The ore shows considerable sulphurets, and is said to pay twenty-three dollars per ton. It is claimed by a French company, who, like all the others except the Heckendorn, have been compelled to suspend operations for want of means. There are a great many other claims in the district, but those described include most of those on which any considerable work has been done, and will furnish a fair illustration of the character of the ledge in that section.

The district is easy of access by good roads, at almost all seasons of the year when it is possible to travel anywhere, is abundantly supplied with timber, and with water for steam and amalgamation purposes the year round. The climate is temperate and healthy, and the scenery fine. The ledges have been prospected sufficiently to fully test their permanency, if not their value, and one at least is found to produce very rich ore. Taking all these facts into consideration, I know of no part of the State furnishing greater inducements to the investment of capital for its development than Blue Mountain.

On my return to West Point, I proceeded at once to Mokelumne Hill, where I remained until Monday morning, when I procured a horse of Mr. Dowling of that place, and started for

RAILROAD FLAT.

The section of country described under this name consists of the watershed between the Mokelumne and Calaveras rivers, and includes the Railroad Flat, Independence, and Equal Rights mining districts. The country is principally of slate formation, with drift overlying the slate, furnishing in many places valuable placer diggings which it is believed will pay well for working by the hydraulic process, and which will apparently last for ages. The drift is frequently crossed by ridges of lava, such as in other parts of this county and Amador are often found to cover the beds of ancient rivers, which are filled with auriferous gravel. The country has been from some cause but little prospected, probably one very important cause was the fact that a few years since a lawsuit occurred, which for a time deprived the miners of the whole section of water. It is well supplied with timber, and water is now abundant at twelve and a half cents per inch. About noon I arrived at the residence of Mr. Warren V. Clark, who with his partner, Mr. Woodbury, now owns the ditch which supplies the district with water. After dinner, Mr. Clark proposed that I should remain over night, and that we should spend the afternoon rambling over the neighborhood, seeing the sights and "taking notes" of things. Near his residence, and some eight miles above Rich Gulch, is located Mr. Clark's saw-mill. It is one of Hendy's Patent Circular saw-mills, and is considered by the owner a very successful affair. The power is furnished by an overshot wheel forty feet in diameter, and four feet wide. The framework and setting of the machinery are the work of Mr. Woodbury, a partner of Mr. Clark, and are of such a character as to reflect the highest credit upon his mechanical skill.

HYDRAULIC MINING.

The placers of this district not being on the whole very rich, the only profitable way of working them is by the hydraulic method. This, owing to the fact of the great distance of most of the claims from any points in the ditches sufficiently elevated to give the necessary fall for this work, requires an expense for purchase of pipe, hose, etc., too great for the ordinary miner to afford. Mr. Clark has attempted to test the matter by trial and thus far by flattering prospects. By the use of 3,100 feet of iron pipe, he has obtained a pressure of 225 feet, which is sufficient to clear away the ground with a speed which "astonishes the natives," and would do credit to any company of miners in Nevada or Yuba counties. The pipes are of Nos. 16 and 18, sheet iron, the main pipes being eleven and thirteen inches in diameter, and the "hose," as he calls them, or working pipes, are seven inches. No canvas hose is used, except in places where it is necessary to bend the pipe, the rest being all iron.

THE QUARTZ INTEREST

In this district is in its infancy. In a district ten miles square the only means of crushing is a hand mortar, four inches in diameter, with a broken pestle. I did not even see *this*, I only heard of it. Several ledges have been discovered and partially prospected, the principal of which is

THE COL. WATKINS CLAIM,

As it is called from the fact of a man of that name having erected an arastra and crushed some rock from it many years ago, which was said to have paid $16 per ton. This lode has been traced for a long distance and located, and opened at many different points at most of which it shows considerable gold. The course of the vein is nearly north and south, it has not yet been opened sufficiently to fix upon its dip with accuracy. The location farther south, and nearest the saw-mill, is that formerly held by Col. Watkins himself, and consists of 1,000 feet, now claimed by Messrs. Clark & Woodbury, and some of their employees. The next, known as the Two Dollar Gulch claim, is claimed by Messrs. Zane, Ellsworth and others, known here as the New York boys, who hold 800 feet. Still further north is the Jeffries claim of 800 feet, and other extensions are claimed for a full mile. On both of the principal locations the rock appears well, showing considerable free gold. A package of 130 pounds of quartz from the claim of Mr. Clark on this vein is at present in the hands of Mr. G. Pardon of San Francisco, for the purpose of being tested.

Another ledge has been struck at Nobility Flat, three miles south of Clark's mill, by some Germans, which is said to prospect well. It is from nine inches to three feet wide, and it is believed will pay $40 per ton.

THE NEW YORK CLAIM

Is located on a high hill, some three miles north of Clark's mill. The company claim 2,000 feet on a ledge running north and south, with a dip to the east of thirty five degrees. It has been opened to a depth of fifty-eight feet by two shafts, thirty-four feet apart, connected by a drift forty-three feet below the surface, the rock prospects well. The boys have worked under very discouraging circumstances, but seem to feel sure of making their fortune yet. I sincerely hope they may.

Mr. Clark is making a vigorous effort to get capitalists to come into the district, and put up a custom mill, and the terms that he offers are such that some one ought certainly to be found who would do it.

On my way down this afternoon, in passing the residence of Col. Rust, he stopped me and taking me into his garden, showed me where in digging to plant a grapevine, his boys had struck a quartz lead. It appeared to be about a foot wide. Nothing is known about its extent, but the quartz looks well. The country is looking up. D.

Rich Gulch, Calaveras co., Feb. 1866.

RE-OPENING OF THE SCHOOLS.—Notwithstanding the prediction of the *carpers* that the Public Schools would not open again until the 1st of July next, they *did* open promptly on Monday morning last, and will continue, as heretofore, throughout the year. Through the efforts and representations of Superintendent Pelton, and other friends of the Public Schools, the Legislature promptly passed the relief bill asked to meet the present extraordinary emergency. The bill also makes ample provision for the future wants of the department, both in the matter of school houses and the payment of old debts, and before another year comes round, the city will be able to own its own school buildings, and to have enough of them to accommodate all its children. This is as it should be, and is nothing more than every sincere friend of public education confidently expected from the wise and intelligent body of men which constitutes the present Legislature of California.

THE art of WRITING is the most miraculous of anything which man has devised.

[Written for the Mining and Scientific Press.]

Have we Anthracite Coal in California.

EDITORS PRESS: In your issue of the 10th inst., you mention the arrival of a small lot of anthracite coal from British Columbia by steamer Labouchere; and believing, as I have constantly expressed myself to you and others, that contrary to the declarations of Silliman Whitney, Gabb, Jackson and others, such coal was to be found on this coast when sought for in the right localities, I was therefore much pleased at the probable solution of the problem. I immediately visited the steamer, and announcing to the first officer—the captain being absent—the object of my call, he very kindly removed the hatches and ordered a search for pieces, a few of which only remained on board, as the sacks containing it had been removed. When found, I was much pleased with its appearance. It is evidently not so heavy as the anthracite imported here from Pennsylvania, and contains probably more volatile matter and somewhat more ash. Indeed the analysis, as I subsequently found in your issue of the MINING AND SCIENTIFIC PRESS of September 16th, 1865, made at Victoria by Mr. F. Claudet, of the Government Assay Office at New Westminster, shows this very supposition to be true.

Some of this coal was tried at the Vulcan Foundry a few days since, and on inquiry, the proprietors stated that while they were pleased with it as a fuel, it is not equal to imported coal in hardness and freedom from gas, requiring somewhat more in quantity, and a little more flux.

Now the question arises, can anthracite be found in California and near home; and if so, why has it not be found? I answer, anthracite coal can be found in Oakland and so on to Mission San Jose, but it will lie deep. It can be found near the surface in the hills to the southwest of the New Almaden quicksilver mines. It can be found near the surface with a comparatively small amount of exploration, at any point along the mountain range in which the sedimentary rocks resting upon the mountain have been highly tilted. Now the tilting of these beds is due to the protrusion of associated trappean and metal bearing rocks, which rocks are thrust to the surface subsequent to the complete deposition of the sedimentary series, including the three series of coal, thus lifting up and breaking the sedimentary strata, and revealing to man these stores of fuel, which otherwise would in most cases, without any aid from science, remain undiscovered. Especially is this true of the anthracite series, which lie deep down, and probably only by this means would ever be revealed.

To better understand the matter, let me state a few facts, as I deem them, in relation to the physiography of the earth's surface—a science which underlies the science of geology itself, and which needs to be fully apprehended in order to make an intelligible science of geology:

The earth's surface is divided up into mountain ranges and coal basins. The mountain chains may be divided into the main metal bearing chains, and into divergent chains, which are not productive of either gold, silver or copper, *in veins*; but which do contain cinnabar, and some irregular deposits of copper. The Sierra Nevada mountains, the Rocky mountains and the Alleghanies, are the main mountain chains of the North American Continent. The course of the Sierra Nevada is about true north, or about 15° to 17° west of Magnetic North. Hence we say, ordinarily, that their course is about N. N. W. by compass. The course of the Alleghanies is northeasterly. Now there are other mountain chains which I have called divergent for the following reasons. The course of the Oakland chain is about west and by north. The Santa Cruz or Gabilan mountains; the Monterey or San Lucia mountains and Point Conception, which is part of a parallel range, all have the same course. These last named all terminate abruptly on the ocean, and therefore there is no such thing as a coast range of mountains. The sedimentary rock can be seen on either flank, dipping down toward their respective basins. Now let any one make a diagram, and suppose the Sierra Nevada to be 100 miles east of the coast of the Pacific, running a N. N. W. course, and the space between the mountains and the shore divided by west and by north lines, or mountain chains, about thirty miles apart from each other, and these spaces or troughs between filled with the entire sedimentary series, coal and all; and you have a bird's eye view of the physiography of the Pacific coast.

You may apply this proposition to the Atlantic side of the continent, and although the Alleghanies run northeasterly, its system of divergent chains show the same north by west, and south by east course. We have the Blue Mountains of New Jersey, we will suppose, as a point of departure. Then going east we find a mountain chain terminating at Throg's Point; again, another chain at Stonington, Conn. Again, from Fall River and Newport to New Bedford, we find granite, which is never found, except as mountain; again at Quincy, Mass., and again still at Plymouth, Maine. When geological search and explorations shall have thoroughly investigated the matter, I apprehend it will be found that *this is the true physiological outline of the entire earth's surface.*

If, then, this proposition be true that the coal of the earth's surface lies in these troughs, and that these troughs all follow a west by north and east by south course, then we have made a fixed, definite mathematical point; and, fossils aside, the mountain chain which fix the sides of the valley, and the course and position of the strata is our point of departure in our coal and petroleum explorations.

Now the position of anthracite coal is unsettled. Some geologists contend that it is found in the same beds with the bituminous coal. I do not think so, as a proposition, and were I writing an exhaustive dissertation, which I am not, I would show otherwise. I assume that anthracite coal is only to be found *in situ*, in connection with the black clay slate rock; the true geological position of which is about one quarter of a mile from the base of the mountain either side, into the valley or trough. Bituminous coal is found about one and one quarter miles from the base of the mountain, and cretaceous, tertiary or true lignite coal, *in situ*, about five or six miles from the base of the mountain. Other deposits of *lignite* may and can be found located irrespective of any general plan of deposition.

Hence, then, my assumption that anthracite coal can be found at Oakland, and I have added bituminous coal also; and what is much more, it will be more easily found, as its croppings will be much nearer the surface. Proof that it exists, then, presumptively, is to be found in the fact that bituminous coal of the very best quality, is to be found about seven miles southwesterly from the depot at Mayfield, on the San Jose Railroad, on the Martinez ranch. The coal crops out of the ground in regular veins, and is so hard and firm that notwithstanding its long continued exposure to the weather, a hard blow with a hammer is required to detach it. I think it is a cannel coal. I found immediately in the neighborhood of the coal a *macrocheilus*, and some other fossil shells, the name of which I have now forgotten, all belonging to the true bituminous series. Since then, the space between the Oakland and Santa Cruz mountains is a complete distinct geological basin, supposed to contain the three series of coal, and since the bituminous is found, as I have above pointed out, and the tertiary is to be seen on the shore, south of the Ocean House, which would be on a parallel line four to six miles further into the basin, and the anthracite to be sought west of the bituminous a mile nearer the mountains, but *where the lower rocks have been highly tilted* by traps, which would be in the mountains west of San Jose; therefore I infer that since Oakland is in this basin in which we positively know that there are two kinds of coal, and since we know by past explorations and observations that the sedimentary rocks underlie Oakland, San Antonio, and so on to Mission San Jose; and since we all admit that the layers of rock from side to side, of this and every geologic basin, is like putting saucers or oblong dishes one within the other; therefore if we find coal on one side of the basin we are fully warranted in the supposition and assertion that it will be found on the opposite side of the strata, and essentially undisturbed; and exploration will find it.

One great difficulty in the way of finding coal readily is in the fact that the rocks here are overlaid by tenacious diluvium, alluvium, and adobe soil. The bituminous coal, of which I have written, was overlaid by fifty feet, probably, of soft earth; but it is laid bare by the action of the water at the intersection of two ravines. Its presence would not otherwise have been suspected, but guided by these principles, systematic artesian boring would have found it. Here, then, we have a few facts and principles to guide us, and when our recognized scientific men shall have mastered somewhat of the mathematics of their business—instead of depending solely on fossils—which they can only do by diligently consulting Nature herself, there will be no difficulty in enlisting capital to aid in unearthing the treasures of our soil. When we can have cheap coal, which already lies at our front door, under the streets of Oakland, but not apprehended by her own people, then our manufactures of iron and cloth, and of every other description can be inaugurated, and a new impetus given to the material wealth and social prosperity of our State.

O. W. EASTON.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Saturday, March 17.

3 shs Savage at 980@990 per foot, s 3.
18 shs Ophir at 980@985 per foot.
24 shs Crown Point at 1175 per foot.
4 shs Crown Point at 1200 per foot, b 5.
17 shs Yellow Jacket at 660@700 per foot.
4 shs Yellow Jacket at 690@700 per foot, s 3
1 sh Yellow Jacket at 700 per foot, b 3.
284 shs Ophir at 610@625 per foot, b 30.
288 shs Ophir at 620@610 per foot.
12 shs Ophir at 625 per foot. b 10.
24 shs Ophir at 612 50 per foot, s 3.
12 shs Ophir at 610 per foot, s 30.
2 shs Belcher at 275 per foot.
1 sh Belcher at 290 per foot, b 30.
2 shs Belcher at 280 per foot. s 5.
36 shs Chollar-Potosi at 390@385 per foot.
5 shs Chollar-Potosi at 385 per foot, s 30.
2 shs Hale & Norcross at 1000 per ft, b 3.
14 shs Hale & Norcross at 1000 per foot.
4 shs Hale & Norcross at 1000 per ft, b 10.
12 shs Daney at 13 per foot.
15 shs Bullion at 90 per share, b 30.
10 shs Bullion at 86@98 per share, s 10.
2 shs Bullion at 87½ per share.
55 shs Sierra Nevada at 11¼ per share.
29 shs Confidence at 63@67 per share.
10 shs Confidence at 72½ per share, b 30.
15 shs Imperial at 158 per share.
10 shs Imperial at 140 per share, s 30.
5 shs Imperial at 145 per share, s 3.
20 shs Baltimore American at 7 per share.
1 sh Empire M & M Co. at 200 per sh, s 10.
6 shs Empire M & M Co. at 200 per sh s 5
1 sh Empire M & M Co. at 205 per sh, b 15
10 shs Overman at 70 per foot, h 30.
10 shs Overman at 65 per ft.
11 shs Cal Steam Nav Co at 56¼@56 pr ct.
10 shs Union Insurance at 115 per cent.
5 shs Oakland Railroad, 50 per cent.
$3,500 Legal Tender Notes at 76¼c, b 3.
Amount of sales.....$123,850 00

Monday, March 19.

24 shs Ophir at 640@650 per foot, h 30.
48 shs Ophir at 640@647½ per toot.
36 shs Ophir at 650 per foot, b 3.
108 shs Ophir at 650 per foot.
12 shs Ophir at 650 per foot, s 6.
24 shs Ophir at 670@672½ per foot, b 30.
14 shs Savage at 1000 per foot, s 3.
1 sh Savage at 1005 per toot.
5 shs Savage at 1010 per foot, b 3.
1 sh Savage at 1010 per foot, c.
20 shs Chollar-Potosi at 400 per foot, b 30.
8 shs Chollar-Potosi at 390 per foot, s 3.
25 shs Chollar-Potosi at 387½@385 per ft.
5 shs Hale & Norcross at 990@985 per foot.
2 shs Hale & Norcross at 990 per ft, s 3.
12 shs Alpha, G. H., at 305@310 per foot.
1 sh Yellow Jacket at 750 per foot, s 30.
8 shs Yellow Jacket at 760@775 per ft.
10 shs Yellow Jacket at 795 per foot, h 30.
16 shs Belcher at 277½@280 per foot.
14 shs Sierra Nevada at 11¾ per sh.
6 shs Empire M & M Co. at 200 per sh.
2 shs Empire M & M Co. at 200, s 3.
2 shs Empire M & M Co. at 200 per sh, s 6.
15 shs Imperial at 150@152 per share.
5 shs Imperial at 150 per share, s 8.
5 shs Overman at 65 per share, s 3.
2 shs Confidence at 71 per share
1 sh Cal Stem Nav Co at 56¼ per cent.
$2,500 Legal Tender Notes at 76¼ per cent.

AFTERNOON SESSION.

8 shs Yellow Jacket at 785@815 per foot.
16 shs Yellow Jacket at 800@770 per ft, s 30.
4 shs Yellow Jacket at 820@515, b 30.
3 shs Yellow Jacket at 805@795 per ft. b 10.
6 shs Chollar-Potosi at 385 per foot.
10 shs Chollar-Potosi at 385 per foot, s 10.
5 shs Cnollar-Potosi at 385 per foot, s 30.
6 shs Belcher at 290@295 per foot.
4 shs Belcher at 295 per foot, s 3.
1 sh Belcher at 300 per foot, b 3.
48 shs Ophir at 650@640 per foot.
5 shs Savage at 1020 per foot.
1 sh Alpha at 310 per foot.
1 shs Alpha, G. H., at 3 5 per foot, s 3.
9 shs Hale & Norcross at 975 per sh, s 30.
120 shs Baltimore American, at 7½@10¾.
10 shs Baltimore American at 9 p sh, s 5.
22 shs Empire M & M Co. at 202½@200.
Amount of sales.....$176,990 00

Tuesday, March 20.

312 shs Ophir at 620@640 per foot.
48 shs Ophir at 625 per foot, c.
74 shs Ophir at 630@625 per foot.
108 shs Ophir at 642½@630 per foot, b 30.
72 shs Ophir at 625 per share, s 5.
24 shs Ophir at 620 per foot, s 10.
2 shs Hale & Norcross at 1000 per foot. s 3.
14 shs Hale & Norcross at 1050@1030, b 5.
2 shs Hale & Norcross at 1050 per foot, b 10
10 shs Hale & Norcross at 1025@1020 per ft.
100 shs Daney at 13@14 per foot.
4 shs Alpha, G H, at 320 per foot.
17 shs Yellow Jacket at 800@805 per foot.
4 shs Yellow Jacket at 800 per foot, s 8.
18 shs Yellow Jacket at 790@785 per lts, 3 0.
1 sh Belcher at 300 per foot, b 3.
5 shs Belcher at 290@285 per foot.
2 shs Belcher at 285 per foot, s 3.
2 shs Belcher at 300 per foot, b 30.
4 shs Crown Point at 1300 per foot.
4 shs Crown Point at 1300 per foot h 8.
4 shs Crown Point at 1300 per foot, b 10.
4 shs Crown Point at 1300 per foot, b 5.
4 shs Crown Point at 1325 per ft, h 30.
5 shs Chollar Potosi at 385 per foot, s 3.
5 shs Chollar-Potosi at 387½ per foot, c.
3 shs Chollar-Potosi at 386 per foot.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, March 24, 1866.

There contiaues to he a fair amount of husiness paper offering, hut the requirement fur hank eccommodatioa has nnt materially improved during tbe week. Large sums nf money heve, however, heen kept in mntion, partly for mercantile purposes, but chiefly for the uses ot tbe Stock market. These amounts simply pass from hauk to hank, or from one account to another ia tbe same bank; very little leaves the city; hut we learn that arrangements heve been perfected which will require large remittances to the interior at an early day for the development of miniag claims. There can be little doubt that a very active prosecution of miniag interests is contemplated the ensuing season, ead the condition of the Money Merkct favors it. The amount of capitel seeking investment, and no longer required for mercantile purposes, is considerehle, and eaterprises presenting a reasonable assurance of profit and safety, will probably experience less hindraace than heretofore for waat of fuads. The rate of discount still rules at 1@1¼ ₱ cent. per month in hank, and 1¼@1½ ₱ ccnt. in the open market.

Ia mortgage securities very little is doing at present, except by the Insurance companies and Sevings institutions, which have almost the monopoly of that business. The outside rate is 1 ₱ cent. per month upon city property.

Receipts of Bullion from domestic sources continue up to the usual average, and since Saturday last amounted to $900,000, making an aggregate of nearly *three millions* thus far during the current month.

The demand for bullion has not been active this week, and Gold Bars were taken to eccount hy Bankers and others within a range of 840@850. Silver Bars ruled et 1@1½ ₱ ceut. premium for average parcels.

Legal Tender Notes ere held with firmness nt enhanced rntes, and small sales were made at 76¼@78, closing at 78c hid, and 78¼c esked. The flattering condition of the National Treasury, and favorable legislation by Coagress looking to an immediate contraction of the currency, will, it is thought, still further reduce the premium on Gold Our latest telegraphic advices from the East quote Gold at about 128.

The Mining Share merket is heginning to attract much more attention. The unexpected rise a short time ago, and the firmness with which all stocks have heea maintained siace then, induces many parties to enter the exciting erena of tbe Stock Exchange who had no thought of ever doing so again. The increased productiveness of a number of prominent claims, and the promising character of recent developments in others, inspires more faith in their present and future value, and unless this confidence is soon rudely shaken hy some unfavornble circumstence or other, it will not be difficult tn revive, in some degree at least, the speculative spirit of formcr periods. It might he well, perhaps, to not attnch ea undue importence to the present appearances of the Comstock lode in different mines. The pesent experiences of silver mining in Neveda and in other localities are not without application nt this time. The fluctuating fortuues met with, and tbe difficulties encountered then, should not be lost sight of now.

Crown Point is in hetter favor, advaacing from $1,175 to $1,330, receding to $1,300, rellying to $1,350, then selling at $1430, and closing et $1440.

During the week ending the 16th instant, 608 tons of ore were extracted from the mine. The herren streak met with lnst week on the incline from the 300-feet level has given way to good ore. Ore is heing taken from the extreme west stratum (35 feet from main vein) worth $40 per ton. The lode on the 3d level has now been developed at lenst 200 feet iu length, verying ia width from 15 to 30 feet, and the prospect is feir for e further length of 200 feet. The main shaft is now down 50 feet, end in 30 days sufficient deptb will he attained for the new or 4th level. Receipts of Bullion for the first 15 days of this month emounted to $61,000, including some $3,600 from 12 tons of first-class ore.

Hale & Norcross has fluctuated but little, and is well maintained at the close, receding from $1,000 to $975, rising to $1,050, dropping to $1,007½, rallying to $1,027½, end then selling at $1,030@1,020. No material change has taken place in the general appearance of the lode in the 700-feet level, end the latest telegraphic advices are still favorable. The company heve now a surplus halance (over and above ell liabilities) of some $21,000, and tbis sum will be largely iucreased out of the earnings of the last half of this month.

Savage declined from $1,010 to $980, rose to $1,030, fell to $985, rallied to $1,020, buyer 30, end sold yesterday at $1,010@1,015. No ore has been extracted recently below the 2d level, but from this point up it is seid to hold out well, and shows a larger proportion of first-class. The new or 6th level will, it is thought, be opened on or ebout the 1st of April, the shaft now being down to the depth required. The company's mill is at present running by water-power, and crushing some 30 tons of ore per day at a low cost. Receipts of Bullion thus far, during the month, exceed $95,000.

Yellow Jacket has heen ia better request, and was actively dcalt in, advancing from $660 to $815, dropping to $785, rallying to $850, receding to $785, and selling yesterday at $750@800. During the week ending March 5th, 737 tons 2d-class and 302 tons 3d-class ore were extracted from the mine—the latter being sold at $3 per toa. The yield of Bullion from the compaay's mill during the same period emounted to $13,675.53. Thc new development met with in drifting from the south sbaft (lower level) is thought to he of some importance. The face of the drift shows good ore worth 35@40 per toa.

Ophir rose from $610 to $672½, buyer 30, fell to $600, rallied to $650, buyer 30, then sold et $640, and was dealt in yesterday at $665 @$725, some 275 feet in all changing hands. The general tenor of edvices, as to the real velue of the newly-discovered deposit in the 9th gallery, seems to he favorable. A winze is now being sunk on the east side of the vein, nnd the drift across the lode has met with a body of quartz some 18 feet west of the clay wall.

Chollar-Potosi has heen steadily meintained within a range of $385 @$400, closing at about $400. The Piute station has shown some improvement since last week. The upper stope of the Bajazette ground is turning out well, and some ore is still obtaincd from the lower stope. In the station 60 feet below the Potosi tunnel prospecting continues without eny ore being obtained. In the Choller there is no change to note. The new shaft is now down 585 feet, nnd the drift is underway agein. During the week ending March 16th, 1,094 tons of ore were sent to custom mills.

Alpha is inactive and dull, and small seles were made advancing from $305 to $320, dropping to $300, and closing at $305. Belcher rose from $275 to $300, fell to $285, rallied to $300, and sold yesterday at $315@325. There is no new leature to report in either of these two claims.

Empire Mill and Mining Compaay hes heen dealt in within a range of $205 and $195 per shere, closing at $202½ asked. Imperial is in less fevor, and more than 1,000 shares have changed hends; receding from $160 to $126, slightly rellying to $132½, end selling yesterday nt $138@137½. Receipts of hullion this month ere much lighter than usual, owing to tbe poverty of the ores reduced from both the Holmes and Alta mines.

Bullion is in hetter favor, steadily edvancing from $86 to $110, nnd selling yesterday et $110@130. Some favorable indications heve heen found this week in the lower drift east of the engine shaft. Overman is lower, dropping from $70 to $58, and closing at $65. Confidence fell from 72½ to $47, and sold yesterday at $52½.

The aggregate recorded sales of Stocks, since Saturday lest, amounted to $1,043,906,00.

1 sh Savage at 1030 per foot.
10 shs Savage at 1025 per foot, s 3.
1 sh Savage at 1020 per foot, c.
25 shs Imperial at 155@147½ per share, s 30.
70 shs Imperial at 160@165 per share.
5 shs Imperial at 155 per share, b 10.
10 shs Imperial at 160 per share, h 30.
4 shs Imperial at 156 per sbare.
35 shs Exchequer at 9¾ per share.
35 shs Overman at 65@69 per sh.
5 shs Overman at 67½ per sh, c.
1 shs Empire M & M Co. at 200 per sh.
8 shs Cal Steam Nav Co at 56¼ per ct.

AFTERNOON SESSION.

12 shs Chollar-Potosi at 387½ per foot.
15 shs Chollar-Potosi at 400 per foot, h 30.
12 shs Alpha, G. H., at 320 per foot.
4 shs Yellow Jacket at 790@785 per ft
4 shs Yellow Jacket at 775@770 per ft, s 30.
90 shs Ophir at 600@610 per share, s 10.
72 shs Ophir at 605@615 per foot.
60 shs Ophir at 660 per foot, b 30.
2 shs Belcher at 280 per foot, s 3.
3 shs Belcher at 285 per toot.
4 shs Hale & Norcross at 1010 per foot.
2 shs Hale & Norcross at 1030 per foot, h 30
10 shs Confidence at 68 per share, b 10.
43 shs Imperial at 156@160 per share.
5 shs Imperial at 160 per share, b 30.
35 shs Imperial at 152@150 per share, s 30
2 shs Empire M & M Co. at 197½ per sh.
19 shs Overman at 67½@70 per foot.
55 shs Overman at 72½ per foot. b 30.
24 shs Baltimore American at 9 per ft, s 3.
20 shs Baltimore American at 9½ pr ft.
5 shs Bullion at 92¼ per share.
30 shs Bullion at 100@102½ per share, b 30.
10 shs Bullion at 95 per share. b 5.
60 shs N B & Mission R. R. at 49¼ per ct.
5 shs Steam Nav Co at 57 per cent.
Amount of sales.....$186,989 00

Wednesday, March 21.

13 shs Savage at 1020@1007½ per foot.
2 shs Savage at 1010 per foot, s 10.
1 sh Savage at 1010 per foot, s 3.
5 shs Chollar-Potosi at 390 per foot.
1 sh Chollar-Potosi at 387½ per foot, s 3.
8 shs Yellow Jacket at 780@810 per ft. s 30.
1 sh Yellow Jacket at 830 per foot, b 30.
2 shs Yellow Jacket at 830 per ft, s 3.
6 shs Yellow Jacket at 810@82. per foot.
28 shs Crown Point at 1300 per foot.
4 shs Crown Point at 1150 per ft, b 30.
72 shs Ophir at 615@620 per foot, c.
108 shs Ophir at 615 per foot.
2 shs Belcher at 295 per foot.
4 shs Belcher at 290 per foot, h 3.
4 shs Gould & Curry at 1050 per foot.
12 shs Alpha, G H, at 310@300 per foot.
45 shs Imperial at 150@140 per share.
35 shs Imperial at 130@136 per sh, s 5.
15 shs Imperial at 140@141 per share, b 30.
30 shs Imperial at 120@132½ per share, s 30.
10 shs Imperial at 136 per share, b 5.
7 shs Empire M & M Co. at 195 pr ft.
5 shs Bullion at 95 per share, s 5.
22 shs Bullion at 96@102 per share.
21 shs Bullion at 101@102 per share, b 30.
10 shs Confidence at 60 per share, s 30.
6 shs Confidence at 64 per share, h 19.
22 shs Confidence at 65@69 per sh.
5 shs Confidence at 62½ per share, h 30.
5 shs Overman at 60 per share.
10 shs Baltimore American at 10 pr sh.
3 shs Cal Steam Nav Co at 57@56½.

AFTERNOON SESSION.

7 shs Belcher at 290@295 per foot.
1 sb Belcher at 292½ per foot, s 3.
148 shs Ophir at 62.@637½ per foot.
24 shs Ophir at 650 per foot, b 30.
4 shs Alpha, O. H. at 290 per foot.
10 shs Yellow Jacket at 830@845 per foot
2 shs Yellow Jacket at 810@840 per ft, s 10.
2 shs Yellow Jacket at 840 per foot, s 3.
3 shs Savage at 1000 per foot
2 shs Savage at 1020@1010 per foot, b 30.
5 shs Savage at 990@980 per foot, s 30.
1 sh Savage at 1000 per foot, s 3.
3 shs Savage at 999@985 per foot, s 5.
15 shs Chollar-Potosi at 400 per foot, b 30.
2 shs Chollar-Potosi at 390 per foot.
1 sh Chollar-Potosi at 390 per foot, s 3.
85 shs Imperial at 130@137 per share.
5 shs Imperial at 134 per share. s 5.
25 shs Imperial at 130 per share, s 30.
10 shs Imperial at 132 per share, b 5.
5 shs Imperial at 130 per share s 10.
8 shs Bullion at 98 per sbare.
5 shs Bullion, at 95 per share, s 30.
23 shs Bullion at 100@101 per share.
5 shs Bullion at 107 per share, b 30.
33 shs Confidence at 52½@57 per share.
5 shs Confidence at 60 per share, b 30.
15 shs Confidence at 52 per share, s 30.
10 shs Confidence at 53@54 per share.
10 shs Cdnfidence at 53 per share, s 6.
50 shs Sierra Nevada at 11¼ per share, b 3.
14 shs Exchequer 8¾ per share.
3 shs Cal Steam Nav Co at 56¼ per ccnt, s 3
Amount of sales.....$210,003 00

Thursday, March 22.

132 shs Ophir at 632½@630 per foot.
36 shs Ophir at 630 per foot, s 3.
12 shs Ophir at 630 per foot, s 5.
84 shs Ophir at 652@651 per toot, b 30.
48 shs Ophir at 630 per foot, b 3.
12 shs Ophir at 630 per foot, s 30.
3 sbs Chollar-Potosi at 390 per foot.
40 shs Daney at 13 per foot.
7 shs Yellow Jacket at 830@845 per foot, s 3
6 shs Yellow Jacket at 840@850 per foot.
7 shs Yellow Jacket at 830@325 per ft, s 30.
7 shs Yellow Jacket at 850@845 per ft, b 3.
10 shs Hale & Norcross at 1020@1027½ per ft.
2 shs Hale & Norcross at 1025 per foot, s 3.
4 shs Crown Point at 1350 per foot.
1 sh Savage at 1000 per foot.
1 sh Savage at 1020 per foot, h 30.
1 sh Savage at 1000 per foot, b 3.
8 shs Gould & Curry at 1050 per foot.
8 shs Gould & Curry at 1025 per foot, s 30.
60 shs Imperial at 125@132½ per share
10 shs Imperial at 127½ per share, b 30.
5 shs Imperial at 127 per share. s 10.
10 shs Imperial at 130 per share, b 3.
5 shs Imperial at 131 per share, s 3.
80 shs Confidence at 52½@47½ per share.
23 shs Confidence at 55@50 per share, b 30.
10 shs Confidence at 47 per share, b 3.
20 shs Bullion at 105@100 per share.
15 shs Bullion at 100@105 per share, s 15.
5 shs Bullion at 100 per share, s 20.
5 shs Bullion at 105 per share, s 3.
5 shs Empire M. & M. Co. at 195, b 3.
25 shs Cal Steam Nav Co at 52 per cent.

AFTERNOON SESSION.

2 shs Belcher at 290@292½ per foot, s 3.
5 shs Belcher at 292½@295 per foot.
163 shs Ophir at 637½@620 per foot.
24 shs Ophir at 650 per foot, b 30.
4 shs Alpha, G. H., at 290 per foot.
10 shs Yellow Jacket at 80 @815 per ft.
4 shs Yellow Jacket at 810@825 per ft. s 30.
2 shs Yellow Jacket at 840 per foot, s 3.
1 sh Yellow Jacket at 810 per foot, s 10.
5 shs Savage at 1000@990 per foot.
2 shs Savage at 1020@1010 per foot, b 30.
5 shs Savage at 990@980 per foot, s 30.
1 sh Savage at 1000 per foot, s 3.
3 shs Savage at 990@985 per foot, s 5.
15 shs Chollar-Potosi at 400 per foot, b 30.
2 shs Chollar-Potosi at 390 per foot.
1 sh Chollar-Potosi at 390 per foot, s 3.
100 shs Imperial at 137@130 per share.
5 shs Imperial at 134 per share, s 6.
25 shs Imperial at 130 per share. s 30.
10 shs Imperial at 132 per share, b 5..
5 shs Imperial at 130 per share, s 10.
26 shs Bullion at 98@101 per share.
5 shs Bullion at 95 per share, s 50.
5 shs Bullion at 107 per share, b 30.
53 shs Confidence at 57@52 per share.
5 shs Confidence at 60 per share, b 30.
15 shs Confidence at 52 per share, s 30.
5 shs Confidence at 53 per share, s 3.
5 shs Confidence at 53 per share, s 5.
50 shs Sierra Nevada at 11¼ per share, b 3.
14 shs Exchequer at 8¾ per share.
3 shs Cal Steam Nav Co at 55½ per ct, s 3.
Amount of sales.....$182,699 00

Friday, March 23.

13 shs Yellow Jacket at 750@775 per ft.
1 shs Yellow Jacket at 750 per foot.
132 shs Opbir at 665@690 per foot.
156 shs Ophir at 685@680 per share.
92 shs Ophir at 675@700 per foot, b 30.
3 shs Chollar-Potosi at 390@395 per foot.
10 shs Chollar-Potosi at 405 per foot, b 30.
19 shs Savage at 1015@1010 per foot.
16 shs Hale & Norcross at 1030@1020.
68 shs Imperial at 130@138 per share.
25 shs Imperial at 135@134 per share, s 30.
105 shs Confidence at 48@55 per ft.
24 shs Crown Point at 1400@1430 per foot.
23 shs Crown Point at 1425@1422½ per foot.
4 shs Crown Point at 1460 per foot, b 30.
120 shs Bullion at 110@125 per share.
4 shs Overman at 60@66 per foot.
80 shs Daney at 18 per foot.
81 shs Belcher at 315@325 per foot.
27 shs Belcher at 315@320 per foot.
60 shs N B & Mission R R at 52 per sbare.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment, Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	DAY OF SALE.
Arbitrias, Chihuahua, Mex..	$1	Mar 29	April 9
Alpha, Gold Hill, Storey co., Nev.,	$30	Mar 24	April 21
Altaville,	$1 25	April 14	April 30
Blue Ledge,	$1 50	April 14	Ap il 28*
Beard & Seaver, Lander co., Nev.,	50c	April 14	May 1*
Baltimore American, Storey co., Nev.,	$2	April 12	April 28
Bunker Hill C. G. & S. M. co.,	$1 50	Mar 23	April 4
Bullion			$10 00
Comet Petroleum co.,	50c	Mar 31	April 14*
Crown Point		Dividend payable Mar 15	
Consolacion,	$1 25	Mar 31	April 15
Capital, Lander co., Nev.,	$5	April 3	April 19
Cole, Storey co., Nev.,	$1	Mar 15	Mar 31
Chipiunea, Sonora, Mex.,	$5	Mar 14	Mar 26
Eagle Quartz, Amador co., Cal.,	$1	April 7	April 25*
Evening Star, Humboldt co., Nev.,	50c	Mar 31	April 14*
Emerald Copper,	$1	Feb 10	Feb 21
Franco-Americano, San Antonio, L. Cal.,	50c	Mar 17	Mar 28
Franco-Americano		Adjourned Annual Meeting	Mar 30
Geo. Washington, Alpine co., Cal.,	$1 50	Ear 21	April 10*
Harker, Lander co., Nev.,	50c	April 14	May 1*
Honest Miner, Lander co., Nev.,	$1	April 7	April 18*
Hanscom, Copper, Del Norte co.,	15c	Mar 31	April 14*
Humboldt, Nevada		Annual Meeting	April 10
"I.X.L.," Alpine co			Sale March 29
Jefferson Lander co., Nev.,	50c	April 14	April 30*
Jeffrey Oil, Humboldt co.,	Cal	April 17	April 28
Keokuk, Contra Costa co., Cal.,	10c	Mar 17	Mar 31*
Lady Bell,	10c	April 14	April 28*
Lady Bryan, Storey co., Nev.,	$1	April 9	April 21
Lady Bryan		Annual Meeting	April 2
La Trobe T & M co., Storey co., Nov.,	$1	April 10	April 28
Madison, Lander co., Nev.,	50c	April 14	April 30*
Monitor, Lander co., Nev.,	75c	April 14	April 30*
Mosquito, Calaveras, Cal.,	$5	April 7	April 23*
Moss Ledge co.,		Meeting March 28	
Maggie			Sale Mar 23
Maria, Chihuaha, Mex.,	$2	March 31	April 14
Nuestra, Sonora de Guadalupe, Mex.,	$1	Mar 31	April 18
Oregon, Lander co., Nev.,	25c	April 14	May 1*
Oxford Beta, Esmeralda, Nev.,	50c	April 7	April 25*
Old Colony, Austin, Nev.,	$4	April 14	April 28*
Overman, Storey co., Nev.,	$15	April 3	April 18
Pride of the East,	50c	April 14	April 27*
Providence, Nevada co., Cal.,	$1	Mar 17	Mar 31*
Planet, Copper		Meeting Feb 22	
Patrocinia & Dolores, Chihuahua Mex.,	$2 50	April 1	April 10
Peninsula, Lower Cal.,	$5	April 3	April 14
Refugio, Chihuahua, Mex.,	$2½	Mar 31	April 14
Refugio, Mex		Meeting	April 2
Silver Cloud, Lander co., Nev.,	50c	April 14	April 27*
Santa Cruz	50c	April 14	April 28*
Southern Light, Lander co., Nev.,	$12.50	Mar 10	Mar 26*
Shoshone, Lander co., Nev.,	$1	April 9	April 23
Siempre Viva, Sinaloa, Mex.,	$2.50	Mar 27	April 7
Salumbo Copper,	50c	Mar 17	April 5
Sierra Nevada, Storey co., Nev.,	$5	Mar 13	Mar 28
Seaton			Sale March 30
United States, Storey co., Nev.,	50c	Mar 17	Mar 31*
Yuba, Yuba co., Cal.,	$2	Mar 31	April 14*
Yellow Jacket, Storey co., Nev.,	$50	Mar 17	April 17

*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 78¼	$ 79
Gov. Legal Tender Notes	78	78¼
State Bonds, 7 ₱ cent	85	86
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	70	..
Sacramento City Bonds, 8 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	58	65
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	60	85
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	75	78
California Navigation Co	55	57
State Telegraph Stock	32	35
San Francisco Gas Co	..	..
Sacramento Gas Co	..	75
Spring Valley Water Co	60	80¼
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	50	51
Central Railroad Co	..	65
North Beach and Mission	52	53
MINING STOCKS.		
Ophir	$ 680	$ 690
Gould & Curry	975	1025
Empire M. & M. Co	195	200
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	1015	1020
Chollar-Potosi	390	395
Hale & Norcross	1030	1036
White & Murphy	....	....
Sierra Nevada	....	10
Yellow Jacket	700	705
Overman	87	88
Cedar Hill Tunnel	....	....
Wide West	9	10
Crown Point	1425	1430
Antelope	....	....
Esmeralda	1	5
Ætna	....	....
Real del Monte	....	15
Bullion, G. H.	125	128
Buckeye	....	....
Dick Sides	....	....
Imperial	139	140
Alpha	300	305

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THE

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RESOLVED, *That we regard a mining paper or journal of great importance to the mining interests of California, and recommend the* MINING AND SCIENTIFIC PRESS, *of San Francisco, to the consideration and support of the miners of the Pacific coast.*

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San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

SAN FRANCISCO, March 17, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1¼c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1¼@1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	60	@—65
American Pig ₱ ton	55	@60
Refined Bar, bad assortment, ₱ lb	3	@—
Refined Bar, good assortment, ₱ lb	3½	@—
Boiler No. 1 to 4	4	@ 5
Plate No. 5 to 9	4½	@ 6
Sheet No. 10 to 13	4	@—
Sheet No. 14 to 20	5	@—
Sheet No. 24 to 27	5½	@—

COPPER.—Duty: Sheathing 5½c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing ₱ lb	36	@38
Sheathing, Old	20	@30
Sheathing, Yellow	30	@32
Sheathing, Old Yellow	12	@13
Bolts	13	@18
Composition Nails	30	@32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	14	@15
Plates, I C Charcoal	12	@13
Roofing Plates	11	@12
Banca Tin Slabs, ₱ lb	30	@ 5
STEEL.—English Cast Steel, ₱ lb	12½	@18
QUICK-SILVER.—Per lb	—	@65
For export	55	@—
ZINC.—Sheets ₱ lb	9½	@10
LEAD.—Pig ₱ lb	8	@—
Sheet	10	@12
Pipe	10	@12
Bar	10	@11
BORAX—California, ₱ lb	20	@23

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 50	@ 7 00
Do Superfine	6 25	@ 8 50
Corn Meal, ₱ 100 lb		@ 3 50
Wheat, ₱ 100 lb	2 00	@ 2 15
Oats, choice, ₱ 100 lb	2 00	@ 2 15
Barley, ₱ 100 lb	95	@ 1 00
Beans, ₱ 100 lb	4 50	@ 5 50
Potatoes, ₱ 100 lb	1 05	@ 1 25
Hay, ₱ ton	10 00	@16 00
Live Oak Wood, ₱ cord	8 00	@10 00
Beef, on foot, ₱ lb	6	@ 7
Beef, extra, dressed, ₱ lb	12½	@ 15
Sheep, on foot	1 00	@ 2 00
Hogs, on foot, ₱ lb	8	@ 9
Hogs, dressed, ₱ lb	12	@ 13
Groceries, Etc.		
Sugar, crushed, ₱ lb	16	@—
Do China	10	@ 12½
Coffee, Costa Rica, ₱ lb	24	@—
Do Rio	24	@—
Tea, Japan, ₱ lb	90	@ 1 00
Do Green	70	@ 1 00
Hawaiian Rice, ₱ lb	8	@ 10
China do	7	@ 8
Coal Oil, ₱ gal	85	@ 90
Candles, ₱ lb	24	@ 25
Ranch Butter, ₱ lb	40	@ 45
Isthmus do	35	@ 45
Cheese, California, ₱ lb	20	@ 26
Eggs, ₱ doz	22	@—
Lard, ₱ lb	22	@—
Ham and Bacon, ₱ lb	25	@—
Shoulders	20	@ 22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45@	55
do pickled ₱ lb	—@	—
do Oregon	35@	40
do New York, ₱ lb	50@	—
Cheese, ₱ lb	25@	35
Honey, ₱ lb	30@	40
Eggs, ₱ doz	40@	—
Lard, ₱ lb	25@	—
Hams and Bacon, ₱ lb	28@	28
Cranberries, ₱ gal	75@	1 00
Potatoes, sweet, ₱ lb	8@	—
do Irish, ₱ lb	1@	1½
Tomatoes, ₱ lb	@	—
Onions, ₱ lb	6@	8
Apples, No. 1, ₱ lb	6@	10
Pears, table ₱ lb	8@	25
Plums, dried, ₱ lb	@	—
Peaches, dried, ₱ lb	@	—
Oranges, ₱ doz	75@	1 00
Lemons, ₱ doz	1 00@	1 25
Chickens, apiece	87@	1 12
Soap—Pale & C. O	10 @	12
Castile	14 @	15

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W. D. Hooker's Patent, August 15, 1865.

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AUSTIN Z. PAGE,
12v12-tf Patentee.

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MINING RECORD.

—AND—

INTELLIGENCE OFFICE.

We have established, in connection with this paper, a Mining Record and Scientific Intelligence Department, where persons desirous can obtain information with regard to any particular Mine or Mining District. All information already in our possession will be furnished free of expense, on application at this office.

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Being in direct and constant communication with the best and most experienced Metallurgists and Practical Chemists in the country, we are prepared to hold consultations and furnish advice on all matters relating to Metallurgy and the application of Chemistry to the Arts. Manufacturers and others about to enter upon branches of industry comparatively new or but imperfectly understood, will do well to call upon us for advice. When desired they will be put in communication with such persons as will be best able to give them the latest and most reliable information and assistance upon such matters as they desire to be informed upon. No charge will be made by us for any service we may render in such cases. When experiments are required, or valuable information is sought, which must be obtained from EXPERTS, we shall leave them to make their own pecuniary arrangements with parties to whom we may introduce them; it being our aim to merely bring them in contact with reliable men, so that they may thereby avoid the immense pecuniary losses which are so frequently incurred in this country by pretentious charlatans, who manage to ingratiate themselves into the favor of those who are seeking for information upon scientific matters, or intricate and not generally understood branches of business.

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DEWEY & CO.,
Publishers Mining and Scientific Press, 505 Clay Street, San Francisco.

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1866 JANUARY 1st, 1866

Commencement of Twelfth Volume

— OF THE —

Mining and Scientific Press

Published Every Saturday.

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In no other ten journals can the reader find the same amount of reliable mining news as in the PRESS.—[Contra Costa Gazette.

Every stockholder in different mines will find it will pay to take and read this mining journal.—[Contra Costa Gazette.

The PRESS is to the Pacific Coast what the "Scientific American" is on the Atlantic. It deserves its success.—[Aurora Daily Times.

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Every miner should subscribe for the PRESS.—[Calaveras Chronicle.

It presents a channel through which all mining notices may be cheaply consolidated into one sheet for the convenience of all stockholders.—[Mountain Messenger.

We can give our testimony that it is always replete with useful and valuable information to miners and mechanics. [Placer Herald.

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Mining Summary.

Most encouraging reports continue to reach us from all parts of the mines, and we may look for large receipts of the precious metals during the coming summer. The condition of the money market is especially favorable for an active prosecution of heavy mining operations, and large amounts of capital, both foreign and domestic, are seeking investment in that direction. We subjoin our usual summary:

CALIFORNIA.

Trinity.—William Roch, from Kellogg's Diggings, Hay Fork, informs the Trinity *Journal* that it has been a splendid working season, and that water for sluicing will last until August. The gold yield in that section will be large this year. This has undoubtedly been the most favorable mining season for most localities in this county ever known. From present appearances, water will be plenty everywhere until July.

Butte.—Many rich mines are now being developed in the vicinity of Forbestown, Butte county. The quartz ledges in that vicinity are proving to be immensely valuable, and the extent of that mining section is said to be equal to any other in California or the world.

Yuba.—The Templar Mining Company, No. 2, have let a contract for removing the Oregon City quartz mill from Oregon City, Butte county, to Indiana Ranch, in that county, to J. I. Johnson.

Nevada.—The discoveries of gold-bearing lodes in Nevada county, during the past two or three years, have been unparalleled in the history of California mining, and what is still better, there is no diminution or abatement of the good fortune attending the efforts of the "prospectors." Says the *Transcript* of the 20th: "Two more ledges were discovered and work commenced on them on Saturday last, at Willow Valley. The ledges are of good size, and the specimens brought into town showed considerable amount of free gold, with any amount of rich-looking sulphurets. Willow Valley is fast becoming one of the richest mining localities in the county."

The Star Spangled Banner mill was started upon the 13th inst. We learn from the *Gazette* that the mill is of ten stamps capacity. The machinery, including the engine, etc., was manufactured at the Miner's Foundry, San Francisco, and is said to be a model of perfection. It was put up under the direction of Mr. H. L. Hopkins, an experienced machinist. The mine has the reputation of being one of the best in the county, and it is said that the owners have refused $150,000 for the mine and machinery as it now stands.

The Cement Mines of this, as well as other portions of the State, are creating an unusual amount of attention. Of these mines in Nevada county, the *Transcript* speaks as follows:—

"The Blue Cement lead crosses Greenhorn from Bunker Hill to Hunt's Hill, and then runs parallel with the creek. It has been prospected as far as Jacobs & Sargent's Green Mountain claims. In many places, as in Carley & Tucker's claims, the top has been washed off by hydraulic mining, and the lead is for some distance laid bare. At other points it is worked by tunnels. The channel is from one hundred to three hundred feet wide, and extends entirely through Little York township to Gold Run, in Placer county. On this lead, within the past two years, some twelve or fifteen new mills have been built, and every week thousands of dollars are taken out, the proceeds varying from eight hundred to six thousand dollars to the mill. We do not know of a single company which has erected a mill and failed in getting good pay. A company near Yon Bet cleaned up their flume on Saturday, 13th inst., and got nearly $12,000 after ten days' run.

At Summit City, we learn that the Enterprise company has received all its machinery and will have the mill running by the second week in April. The only mill now at work is Winton, which is regularly employed crushing for the Pacific company. The rock pays $50 per ton.

Placer.—During last fall, says the *Herald*, quartz prospecting received quite a stimulus in the vicinity of Auburn and other mining localities of this section, from favorable discoveries made; but the wet winter checked operations to a considerable extent. Some companies, however, continued work, and at the present time, as appearances indicate that the protracted storms are over, we hear of very general preparations for renewing prospecting. We think more and better work will be done upon the quartz veins of this region, this summer, than ever before, and with results that will establish the character of our ledges as among the rich and reliable ones of the State.

New locations continue to be made, and we have lately been shown handsome gold bearing specimens taken from some of them near at hand.

The Auburn *Stars and Stripes* says that new and valuable quartz ledges are being discovered in that vicinity every day, and many old claims known to be good re-opened. All that is required to make this town equal to Grass Valley, is enterprise and capital. The laborers are plenty. Who will furnish the money to obtain the rich treasures hid in the ground all about us?

The Dardenelles company near Forest Hill cleaned 532 ounces of amalgam, on the 19th instant.

The Dewey claim, located at Bath, clean up from twelve to fourteen hundred dollars weekly, over and above expenses.

Several other claims in the above localities are doing equally as well.

A miner at Long Cañon, lately took out, after a run of five weeks, one hundred and sixty ounces.

Tuolumne.—The App mine, according to the Sonora *Democrat*, has been sold to a company of capitalists for $120,000.

Mariposa.—The Mariposa Mill commenced crushing rock on the 13th instant. The amount of rock to be reduced is about 300 tons, which will keep the mill running seven days. It is to be hoped that the rock will pay sufficient to warrant a continuance of work.

Sonoma.—The Marysville *Appeal* is informed that gold in paying quantities has been discovered in Sonoma county, about five miles south of Cloverdale, causing great excitement among the usually staid and steady farmers of that commonwealth. The gold is represented as being quite coarse, one nugget weighing five dollars.

The Healdsburg *Standard* says that the mines thereabout are about to form a company and go to work in earnest. Water is to be brought in by a ditch, and the entire surface worked for placer gold first; then the company intend prospecting for quartz. There is a large extent of country where good prospects may be found, but the difficulty of getting water on the ground will always prove a barrier to profitable mining on the range.

Los Angeles.—The Los Angeles *News* says that agents of capitalists are in that vicinity, with instructions to invest in any mines there that they have good reasons to think will pay for working. The *News* adds that there are many rich mines in our section, and all that is requisite to develop their hidden wealth is capital. Copper, silver and gold, besides other metals, are to be found in the three southern counties of Los Angeles, San Bernardino and San Diego, and in sufficient quantities to justify capitalists to invest their money to fully develop the mines. Our mineral wealth has received but a very small share of attention from those desiring to invest in mines—it was not far enough away from home. We trust reason is resuming sway—that common sense will be heeded. Los Angeles county can produce coal of a good quality, and a fine quality of marble. In fact, the vast resources of this county are yet undeveloped—capital is required.

ESMERALDA.

We condense the following from the Humboldt *Register*: "The Manitowoc continues to hammer out the bullion, though the workmen are at this time afoul of a *horn*, or barren spot.

W. K. Parkinson, Superintendent of the Silver Bullion Series has got his men to work on this mine. Better late than never, but the mine ought to have been turning out bullion long before this time.

The editor of the *Register* has seen a beautiful silver bar, the product of an even ton of quartz from the Empire claim, Sierra District. The company organized to work the Empire began the work of development under most flattering prospects. The claim is located on the Neptune Series, the group of ledges on which the Tallulah claims, a short distance further up the ridge. The Honey Lake claim lies between the Empire and the Tallulah, and the several ledges crop boldly in all three—thus evidencing true veins. The Empire company put down a shaft, and when satisfied of the reliable character of the ledges, commenced back in the cañon to run a tunnel. This tunnel is one of the best looking pieces of work in the county—five feet wide, seven feet high, and straight as a lead line. Thomas Ewing, owning largely in the claim, is trying to make arrangements for resuming work. At his own expense he took out this little batch of rock, to see what Torrey could make out of it at the mill. Blake & Co. melted and assayed it, and it turns out 135.45 ounces. Value, silver, $142.38; gold, $5.59—$147.97.

M. Milleson is back, after nearly two years absence from Humboldt. He comes out as agent for a New York company to direct work in several claims which Eastern capitalists have undertaken to develop.

The Esmeralda *Union* is informed that a New York company have purchased an interest in the Walker River mines, and are driving business along in a highly creditable manner. Parties lately from Walker Lake, report that the mines are looking well and they are to have a mill erected immediately, which will test the matter more thoroughly.

Wells, Fargo & Co., shipped from their office in this place, over three thousand dollars in bullion by the stage of the 16th inst., the greater portion of which was from Blind Springs.

The Antelope and Del Monte companies on the same day, paid $4,441 in greenbacks; delinquent taxes and costs. Of this amount, $3,871 were paid into the County Treasury.

The Kearsarge prospecting shaft is now 70 feet deep, and shows a continuous lode of mineral. There is ore enough in sight to pay expenses of working, and which is estimated to be worth $250 to $400 per ton. The Anglo Saxon looks well, as also does the Kenick. The Camanche still sustains its reputation, as well as the Dana.

The Sierra Blanche Silver Company's smelting works are completed, and will be in operation in a short time.

VIRGINIA CITY AND VICINITY.

A new mining district, known as St. Mary's, has recently been discovered, and is creating some excitement. It is on the Henness Pass road, about ten or fifteen miles from the junction of that road with the Donner Lake road. There will be a mill erected there this summer, and wood and water, the two great items of successful mining, are found there in abundance. The Silver Peak district is also creating some stir among the mining population, coal having been discovered, and good looking quartz in abundance. This district is located on the Truckee river, near Baurs' station, on the Donner Lake road.

The Gold Hill *News* says that nearly all the mills in that vicinity are now in full blast. There appears to be no scarcity of ore for crushing. Our bullion shipments prove this. The stamps clatter unceasingly—morning, noon and night the whistles scream, and everything is lovely.

The *Enterprise* says that the late strike in the ninth level of the Ophir is proving immensely valuable. The deposit of ore is now (in the bottom of the drift) 23 feet in width. For the first time in a long while we find the "dumps" of the Ophir filled with ore. Much credit is due to Mr. C. A. Luckhart, the engineer of the mine (mining engineer), for the discovery of this body of ore. We shall soon expect to see the Ophir hold its old place among the Washoe mines. About twenty tons per day of very rich ore is now being taken from the mines, and a much greater quantity will shortly be raised. Low grade ores are also being taken from some of the upper levels of the mine.

It is asserted by those capable of judging pretty correctly that the body of rich ore lately struck in the Ophir extends into the Central ground, and will be struck when the works of the company shall have been put down some thirty feet lower. It is thought that the deposit in the Central will be found to be from twenty-seven to thirty feet in width. It will be a big thing for the company as well as for the country.

Considerable interest is at present being manifested in the southwestern mineral fields of the State of Nevada. Many exceedingly rich veins have been discovered in that section. Generally the leads are but from two and a half to four feet in thickness, but as they are (where worth anything) a solid mass of pay ore, they can be profitably worked, as it costs nothing for timbering, and there is no waste rock to hoist out of the mine. The ores are generally chlorides, argentiferous galana and copper. Ores assaying from $100 to $400 ₱ ton are quite common. Mills are much needed.

A correspondent of the *Union*, writing from Partzwick, under date of March 10th, says that every day's work on the lodes of that section prove more and more conclusively the mineral wealth of that section of country. On the week previous, a specimen of seven pounds was brought down from Elmira, one of the Sierra Blanca company's mines, which looked so well that it was determined to send it to New York. It weighed 317 pounds, and will go to the Paris Exhibition, as the largest known specimen of silver ore ever found in that region of country.

Special School Notice.—J. C. Pelton, Superintendent of Public Schools, gives notice to parents and guardians who desire to have their children and wards enter the Public Schools, that they should make immediate application to the Principals of the several schools, and have the names of their children registered for admission. The Superintendent is determined that any child who desires, or who can be induced to accept, a seat in our Public Schools, shall be accommodated. If more seats are needed they will be promptly supplied.

[Written for the Mining and Scientific Press.]

Silver Mining in Placer County.

Sacramento, March 20, 1866.

Editors Mining and Scientific Press:—It is now an established fact that there are silver mines in California, which, if properly managed, will pay as well as those of Nevada, if not better, taking into consideration the expense of working, the expense of shipping machinery, of fuel and of labor, also the distance from market and transportation, all of which are cheaper and of easier access in California. Working rock, of the same quality in both places, pays better here. Now the question comes up, have we rock of the same quality here. The fact is well known to some that there is rock in Placer county that will range from $100 to $500 per ton, fire assay, both in the vicinity of Newcastle and Folsom. The silver leads at Newcastle were discovered by men who were working by night in the tunnel of the Kearsage Quartz Mining Company, and went prospecting in the day time. There are two ledges running parallel, northeast by southwest, and about two hundred feet apart.

The principal claims on those ledges are the Advalorem and Camanche on one, and the Pacific on the other. There is not much work being done on the Camanche at present, but on the Advalorem, near the line of the Camanche, that company are sinking a shaft, and have reached the depth of fifty-five feet, developing good ore, which, by roasting in a forge, will show globules of silver all over it. The Pacific company are down about forty feet, and have very good ore. Some ore from both claims has worked $64 per ton, mill process. Enclosed you will find a certificate from Mr. Waters, of Sacramento, of an assay made by him of ore from the Pacific ledge, at a depth of twenty-eight feet. The ledge is four feet and a-half wide, and shows some of the richest rock in this district, and the richest silver ore in the State. There is no mistake in regard to the quality of the ore; for by putting it into the forge it will, in a few minutes, run the silver out of the rock. The ledge has been visited by a great number of people, and all are satisfied that it is very rich in silver. The mines are one mile and a-half from Newcastle station, on the Central Pacific Railroad. There is a good wagon road from the station to the mines. Considerable stock has changed hands this week, selling readily at $3 per foot. I have sent you some of the rock from the Pacific, a portion of which is burnt, and some as it came from the mine. If you will examine the burnt rock with a glass you will find that the cavities are lined with silver. [We can see plenty of silver without the aid of a glass.—Eds. Press.] You will also find gold in the clear rock. From one piece I lost a large kernel of gold, but you can still see some gold on the rock. Eng.

The assay alluded to above is as follows:—Gold, 17 oz. to ton; Silver, 358 05-100 oz. to ton; value gold to ton, $3.51; value of silver to ton, $465.46; total value to ton, $468.97.

Waters & Co.

Sacramento, March 19, 1866.

A CHOICE ADVERTISING MEDIUM.

This week we issue an edition of 5,000 copies of the Youth's Companion, every copy of which will be thoroughly scanned by more than one pair of sharp little eyes, and the contents of every page, from first to last, will be re-uttered by many active, lively tongues in the presence of over 4,000 of the best families in this city and State.

Although we are receiving many additional subscribers to our list in response to the new enterprise in which we have engaged, we cannot expect, with the present high cost of printing paper, and our very low terms, to receive sufficient money from subscriptions alone to furnish as good a journal as we have determined to publish for our patrons; so we have widened the columns of the paper and adopted smaller type, which admits more letters in each line, and many more lines in each column of the paper, that we may have room for a few more select advertisements in the Companion *without decreasing in the least* any class of reading matter.

Our little journal circulates in more families than any other weekly published in San Francisco. No advertisements of the least objectionable character will be received, and as but a limited space will be devoted to this department, our young friends can safely inform their storekeepers, and other business acquaintances of these important facts for the benefit of the paper and all concerned.

Remember, only a few columns of our regular issue will be devoted to advertising, and the more profitable that class of patronage is made the greater will be the outlay upon our reading columns.

Dewey & Co., Publishers.

February 23d, 1866.

Familiar Lessons for our Young Readers.

PHILOSOPHY OF COMBUSTION AND OF BREATHING.

If a candle has been allowed to burn until it has a long snuff, on blowing it out with a sudden puff, a long, bright wreath of white smoke is observed to curl up from the hot wick; now if a lighted match is brought in contact with this smoke, even at a distance of two or three inches from the candle, the flame will suddenly run down the smoke and rekindle the wick in a very pretty and fantastic manner. We have often, in our boyhood days, performed this little experiment, and been much amused thereat, and added to the amusement of others in doing so. To be done nicely, there must be no doors open, so as to cause a current of air in the room, neither should there be any rustling about, near the candle for the same reason. Probably some of our young readers who have never heard it explained, would like to understand the philosophy of this little experiment.

The flame of a candle, on close examination, will be found to consist of three distinct parts or cones, the innermost one of which is quite dark, the next outer one being very luminous, while the third, or outermost one is darker than the middle one, though not quite so dark as that in the center. Now this center cone is made up of the very smoke which you see curling away, after the candle is blown out. It consists of the gas, which the heat evolves from the tallow or wax of the candle. This gas cannot burn until it gets far enough away from the wick to become mixed with the oxygen of the atmosphere.

It consists of hydrogen and carbon; the hydrogen is mostly consumed in the middle or most luminous part of the flame; the carbon, requiring a larger amount of oxygen for combustion, is not consumed until it reaches the outside of the flame, where it has free access to the air, and then burns with less intensity, and of course produces the less luminous though hottest part of the flame, which is observed on the outside.

When a large quantity of carbon is liberated by this inner flame, to be burned upon the outside, the candle or lump smokes. The smoke then given off is composed chiefly of very fine particles of carbon or coal, so fine that they float in the atmosphere, and form smoke. This smoke is black, and you cannot light it with the flame of a match, as you did the white smoke, which came from the extinguished wick. That white or light colored smoke was chiefly hydrogen, which is colorless, and contained just enough carbon to make it a little dark.

When you light a kerosene lamp it smokes, because the hydrogen given off burns more rapidly than the carbon. Now, to make the carbon burn as rapidly as the hydrogen, you must put the chimney on to create a greater draft, and thereby bring a sufficient quantity of oxygen in contact with the flame to burn the carbon, and then you have no smoke.

Now, notice another singular circumstance which occurs when you put the chimney on the lamp. You will see that it is almost instantaneously covered with tiny drops of water. Now some of our young readers may think this moisture is condensed from the atmosphere, as you will sometimes observe it on the panes of glass in the window, or on a pitcher of cold water when placed upon the table in a hot day. But it is not so.

There is a very pretty little experiment performed by this act of lighting a kerosene lamp. You know that water consists of hydrogen and oxygen, mixed in certain definite proportions. Now, you have hydrogen and carbon in your oil; you light your lamp, and the hydrogen of your oil is separated from the carbon by the heat you apply; the hydrogen unites with a certain portion of the oxygen of the atmosphere, and you then have hydrogen and oxygen in the exact proportion to form water—in fact, *you do form water*, and that is the water which is deposited on the inner side of your lamp chimney. It remains there until the glass becomes sufficiently hot to convert it into steam, when it passes off. Now, if your chimney was long enough to carry the products of your flame far enough to cool them, you would find *water* constantly trickling from your lamp chimney.

What becomes of the carbon, did you say? By putting on the chimney, and creating the extra draft we have spoken off, you bring sufficient oxygen in contact with the carbon to consume it—or, in other words, to unite every portion of it with the oxygen which the hydrogen has left—and this union produces carbonic acid gas, which is invisible, and very destructive to life. No animal can live in an atmosphere containing any large quantity of that gas. This gas is always produced where anything is burning. It is also produced in the act of breathing. We inhale atmospheric air, which, while in the lungs, suddenly undergoes a chemical change that converts a large portion of it into carbonic acid gas, in which condition it is exhaled. Hence the necessity of having all rooms in which a fire is burning, or a number of people are breathing, well ventilated.

PROPERTIES OF BODIES.

METALS.	Color.	Symbol.	Equivalent.	Degree of Hardness.	Specific Gravity.	Weight of a cubic inch in lbs.	Weight of a cubic foot in lbs.	Resistance to compression per sqr. inch in lbs	Tenacity in lbs per square inch.	Degree of Fusibility.	Malleability.	Degree of Volatility.	Expansion between 32° & 212°	Power of conducting heat.	Power of conducting electricity.	Power of decomposing Water.	Remarks.
Aluminum	white	Al	13.7	2.56			160		1,580 degrees.	malleable	556 degrees.					any temperature	Decomposes air at a red heat.
Arsenic	grey	As	37.7	5.7					490 degrees.	brittle	white heat					permanent	
Antimony	white	Sb	61.6	6.7		.242	418		1,069 degrees.	brittle	white heat					permanent	Is decomposed by iron.
Bismuth	white yellow	Bi	71.5	1.4		.335	616		3,250 degrees.	malleable at 32 deg	white heat		.0011	1.9		any temperature	Is decomposed by iron.
Calcium	grey white	Ca	20.3	2	9.8												Decomposes all minerals except potassa compounds.
Chromium	grey	Cr	26.2		5.9					brittle	very permanent					very permanent	
Cadmium	white	Cd	55.8		8.6				520 degrees.	malleable	600 degrees.					red heat	Burns in air
Cobalt	grey	Co	29.6		8.5					brittle	red heat					red heat	Is decomposed by iron.
Copper, rolled	red	Cu	31.7	2.8	8.8	.322	555	11,700	35,000	malleable	high heat			73.	80	permanent	
Copper, cast	red	Cu		2.8	8.6				19,062	brittle	high heat		.0017	53.	64	very permanent	Decomposes silver, platinum, rhodium, iridium, osmium, nickel, cobalt, antimony, lead, tin, bismuth, copper, and mercury.
Gold	yellow	Au		1.8	19.4	.7	1,210	35,000	20,400	2,200 degrees.	very malleable		.0015	53.	13	any temperature	
Iron, wrought	white	Fe		4.7	7.7	.25	480		60,000		malleable		.0012	11.9	13		
" cast	white	FeC	34.1	any deg	7.18	.26	445	92,000	19,000	2,786 degrees.	brittle	very high heat	.001	11.9	13	any temperature	Decomposed by iron.
Iridium	grey white	Ir	98.6		18.6					very high heat	malleable	very high heat				very permanent	Decomposes all minerals except potassa compounds.
Lead	grey white	Pb	103.5	1	11.3	.41	716	7,000	1,824	609 degrees.	malleable	white heat	.0022	8.5	10	permanent	Decomposed by iron.
Magnesium	white	Mg	12.7							red heat	malleable at 32 deg	red heat				any temperature	Decomposes all minerals except potassa compounds.
Manganese	grey white	Mn	26		5.85				2,282 degrees.	brittle—soft							Is decomposed by iron.
Mercury	white	Hg	200		13.5	.49	847				malleable		.016		3.5	permanent	
Nickel	white	Ni	29.6		8.2				39 degrees	malleable	malleable	630 degrees.				any temperature	
Osmium	blue black	Os	99.7		10	.365						very high heat				when fused in the electric light	
Potassium	grey white	K	39.2		.865				high heat	brittle at 32 degrees	very malleable	very high heat			1.35	permanent	
Palladium	white	Pd	53.3		11.8	.71	1,228		3,092 degrees	very malleable	very malleable	very high heat			8.4	very permanent	
Rhodium	white	R	52.2		11				high heat	very malleable	very malleable	very high heat			10.3	very permanent	
Sodium	grey white	Na	23.05		.972				wells in nitre	brittle at 32 deg	brittle at 32 deg	very high heat				very permanent	
Selenium	red brown	Se	40		4.3				212 degrees.	very brittle	brittle	red heat				very permanent	Decomposes air at a red heat.
Silver	white	Ag	108.3	2.4	10.4	.38	661		41,000	2,000 degrees.	malleable	high heat	.001	100.	100	permanent	
Steel	white	FeC2	24.35	any deg	7.8	.282	487		120,000	2,552 degrees.	very brittle		.0011	11.6	14.6	any temperature	
Titanium	red white	Ti	24.35		6.3					fuses like iron	very brittle	red heat	.0022		15.5		
Tellurium	white	Te	64.2		6.11	.265	455	15,000	5,000	442 degrees.	malleable		.0022				
Tin	white	Sn	58.9	1.5	7.29	.3	525	5,300	8,000	770 degrees.	malleable	white heat	.0027	23.6	20	at 400 degrees	
Zinc	white	Zn	32.3	1.6	6.8	.258	437						.0016				
Brass, cast	yellow	Cu2 Zn	95.7		8.4	.3	525	10,300	17,978	1,800 degrees.			.0018				
Brass, wire	yellow	Cu2 Zn	95.7		8.4	.3	525		90,000				.0018				
Gun Metal	yellow	Cu9 Sn1	316.5		8.4				36,000				.0018				
Babbitt's Metal	white	Sb8 Sn4 Cu1	3235.1														

To have a pure atmosphere, we must get rid of this carbonic acid gas as fast as it is formed.

It is the combination of the oxygen of the atmosphere with the carbon contained in the wood that produces the heat of the fire; there is a little hydrogen with the carbon to help it along, as we have already said. Now it is just the same thing—the combination of oxygen with carbon, that keeps up the heat of the body. We eat food, which consists chiefly of carbon; that food, or carbon, after being properly digested, is mainly taken up by the peculiar mechanism of the system, and goes to form bone, and fat, and muscle. Such parts of it as are not needed are passed off by various means—a portion passing into the blood gives it that black appearance, which forms such a marked difference between arterial and venous blood. This venous blood thus overcharged with carbon, is conducted into the lungs, where by an innumerable number of little cells, it is made to come in close contact with the atmosphere which we also draw into the lungs, in the act of breathing.

While the air is thus in close contact with the blood, separated only by a partition much thinner than the sheet of paper which you are reading, a chemical action takes place, by which the oxygen is made to take away the black-looking carbon from the blood; and when we throw out our breath we also throw out this carbon, in the form of carbonic acid, that is, carbon and oxygen united, the same way as it is when the carbon and oxygen is united in burning a candle or lamp, or a piece of coal or wood. It is this chemical action which is constantly going on in our systems, and particularly in the lungs, which keeps up the heat of our bodies, precisely as the heat of the fire is kept up. The difference is only in degree, that is, in proportion to the amount of carbon and oxygen which is brought into such intimate contact as to form a chemical union, and produce carbonic acid.

When you lean over your desks, or whenever you place your bodies in a stooping posture, you compress your lungs, so that you cannot take in sufficient air to furnish the oxygen required for taking away the carbon from the blood, and thus rendering it fit to sustain life; hence the blood remains bad, moves slowly through your veins, and the delicate little air cells of the lungs become irritated and inflamed, then a cough comes on, and finally the walls of the cells ulcerate and give way.

Now, boys and girls sit upright and stand up straight, so as to give the lungs plenty of fresh air at every breath, and you will never be in danger of consumption. Give your lungs a plenty of fresh air, and study will never hurt you, and you will find your heads all the clearer for it; also, you will be able to get your lessons easier. The warm blood will go coursing freely through your veins, imparting health and activity to your limbs, and redness to your cheeks.

The girls will find this same oxygen, of which I am talking, the best artist in the world to paint their cheeks. It never makes a mistake in the color; and if you let it have free access to your cheeks and lungs, it puts the color on so strong that you cannot wash it off."

SCHOOLS IN ESMERALDA.—We notice that the citizens of Aurora, Esmeralda county, one of the outposts of civilization on the Pacific coast, are taking an interest in their schools, and the cause of education generally. They have a flourishing Lyceum and Library Association, before which lectures are frequently delivered. We notice that our old friend, R. A. Ricker, Esq., one of the most enthusiastic and successful teachers on the coast, has a flourishing school in Aurora. Mr. R. recently delivered a lecture before the Lyceum, which is highly spoken of. His subject was "American Education."

ELECTROTYPE CUTS, ENGRAVINGS, ETC.—Our Job Printing Office is abundantly supplied with elegant engravings, ornaments, and other embellishments to suit the various branches of industry in this State.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

OFFICE OF THE MINING AND SCIENTIFIC PRESS—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely consider his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the MINING AND SCIENTIFIC PRESS. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will oftimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, twenty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian, Spanish, and inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the following official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, presenting it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency or expense ensues. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction and presents to all applicants, rich or poor, an equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorneys, upon the most moderate terms. Letters by draft in many cases of such a matter. Our terms for such cases are very moderate.

Models, Remittances, etc.

The law requires that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimentions; it should be neatly made, of hard wood or metal, or both, varnished or polished; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: DEWEY & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first instalment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way is to remit by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application prepared with names as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it be one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos	$10
On every application for a design, for seven years	15
On every application for a design, for fourteen years	30
On every application for a patent, for seventeen years	15
On every caveat	10
On issuing each original patent	20
On filing a disclaimer	10
On every application for a re-issue	30
On every additional patent granted on a re-issue	30
On every application for an extension	50
On the grant of every extension	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C.	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectfully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No. 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any article which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. Elwin Davis, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:
Saturday Morning, Mar. 24, 1866.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

THE MINER'S INCH OF WATER.

The unsettled state of the question of what should constitute a "miner's inch" of water has been productive of much controversy, and no little annoyance and loss to miners. Efforts have repeatedly been made to secure legislative action upon the subject, but hitherto without effect, and to the present day we have no law upon our Statute books regulating what shall constitute the miner's inch of water; the whole matter being left to the caprices of parties controlling the water. This miscellaneous and uncertain mode of measurement works great inconvenience and much positive loss, not only to the miners, but also to the manufacturer of mining machinery, who is often called upon to construct machinery, and make estimates founded upon quantities of water, the standard of which estimates vary with different localities.

The miner should have some law to protect him against the many contemptible tricks resorted to by ditch owners, in order to retard the quantity and flow of water which they are selling. It is well known to miners who have carefully studied the laws which govern the flow of water, that a wide margin is left for cheating in the delivery of the same; and none know better how to take advantage of these things than many of our ditch managers. Our experience in mining enables us to write advisedly of this matter.

In the absence of the necessary legislation, an effort was made during the Exhibition of the Mechanics' Institute in this city, in the summer of 1864, by persons here at the time, and interested in mining matters, to fix upon some standard of measurement which it was hoped might be generally acceptable. We are not aware to what extent that standard has been adopted; but we notice that Hon. Thos. Hansbrow, of the present Assembly, who took quite an interest in that effort, has now introduced a bill into the branch of the Legislature of which he is a member, making the standard adopted by the meeting at the Institute the legal standard for measurement. The bill, as introduced by Mr. Hansbrow, reads as follows:

SECTION 1. In all suits at law in the courts of this State where the question shall be involved, as to the quantity of running water sold, purchased, delivered or used, and described by "miner's inch," it shall be held and declared that a "miner's inch" of water shall consist of two and one-third cubic feet of water, passing a given point in one minute of time, or seven and $\frac{4064}{10000}$ gallons of water passing a given point in a minute; or one hundred and forty-five and $\frac{86}{100}$ pounds of water passing a given point in a minute.

The Committee on Mines and Mining Interests subsequently offered the following as a substitute for the above:

SECTION 1. A legal inch of water, sold for mining, agricultural, or other purposes, is hereby declared to be what water may pass through an orifice of one inch square, through plank of one inch in thickness, with a pressure of seven inches measured from the center of the orifice to the surface of the water; *provided* the water shall be delivered from a box in which the water has no motion except that caused by the flow of the water to be delivered from that particular box.

SEC. 2. This act shall take effect from and after the first day of May, A. D. eighteen hundred and sixty-six.

We presume the object of the substitute was to simplify the mode of measurement. That object is certainly accomplished, and the measurement is made so simple that the most ordinary mind can fully understand and apply it. Its simplicity is, certainly, much in its favor. But there are so many tricks and devices, well known to experienced miners and ditch men, to which ditch owners will sometimes have recourse, to falsify the more simple mode of measurement, that it is the opinion of many that the miner can be properly protected only by the absolutely correct and, consequently, more complex mode of measurement, proposed by Mr. Hansbrow.

AN ACT

To Secure the Miners of this State Pure and Unadulterated Quicksilver.

Introduced in the California State Senate, by Honorable DAVID BELDEN, of Nevada—Approved, 1866.

[ENACTING CLAUSE.]

SECTION 1. Every company or person within this State engaged in the production of quicksilver by mining, for the purposes of sale, and every firm, company or person, importing into this State quicksilver for the purpose of sale, shall cause to be prepared a metallic stamp of such form and character as may enable such company or person to impress upon wax or other plastic material the seal hereinafter provided. Such stamp shall be so constructed, that either by characters engraved upon the same, or moveable types and dies connected therewith, there may be impressed a seal, showing—

1st. The name of the company, firm, or person producing or importing the quicksilver.

2d. The date at which such seal is applied to each tank or vessel of quicksilver.

3d. The amount of quicksilver contained in such tank or vessel.

SEC. 2. Before any tank of quicksilver shall leave the works of any mining company engaged in the production of the same for sale, or the warehouse of any firm or person importing such quicksilver for sale, such company, firm, or person shall cause a seal of wax, or other plastic material adapted to the purpose, to be applied to the top, plug, or orifice through which such tank is filled, and in such manner that such tap or plug cannot be removed or disturbed, or such orifice opened without breaking or displacing such seal. Such seal, when thus applied, shall be impressed with the stamp above, provided in such manner that such seal shall exhibit plainly all the characters required of such stamp.

SEC. 3. Any person who shall forge or falsely fabricate the stamp or seal of any firm or person, as herein provided, or attach the same to any tank or vessel of quicksilver, shall be deemed guilty of forgery, and upon conviction, shall be punished by imprisonment in the State Prison for the period of not less than one nor more than five years.

SEC. 4. Any person who shall willfully and knowingly adulterate and debase any quicksilver assigned for sale, or that may thereafter be offered for sale, by mixing with such quicksilver any lead, antimony, or other base metal, shall be deemed guilty of a misdemeanor, and upon conviction, shall be fined in a sum not exceeding one thousand dollars, or imprisonment in the County Jail not exceeding one year, or both such fine and imprisonment.

SEC. 5. Any vendor of quicksilver who shall vend or sell to any person any quicksilver debased or adulterated by mixture with the same of any lead, antimony, or any other base metal, shall be liable to the purchaser of such quicksilver for all the damages and injury sustained from such debasement to be recovered by such purchaser in a civil action. And such damages, when ascertained by the Court or Jury, shall be at once quadrupled by the Court or by the Clerk, by order of the Court, and judgment for four times the damages proven shall be entered in favor of the plaintiff, and against such defendant; provided, that nothing contained in this section shall be taken to apply to any person selling quicksilver that has already been employed in mining or the mechanical arts, and who, when selling the same, shall state to the purchaser that such quicksilver has been thus employed.

NEW SUPERINTENDENT.—Capt. A. De Shields has been appointed Superintendent of the Gould & Curry mill, in the place of Mr. J. P. Edwards, resigned. Capt. De Shields is said to be well qualified to fill the position to which he has been appointed, having had much experience in working ores, and being perfectly familiar with every department of the company's mill.

THE proprietors of the London *Times* found their profits so large at the end of 1865, that they made every man in the office a present of two weeks' additional salary.

THE LOCATION AND POSSESSION OF MINING CLAIMS.

EDITORS MINING AND SCIENTIFIC PRESS: Believing you to be conversant with matters pertaining to mining interests, the manner of making locations, etc., I have taken the liberty of asking you a few questions in regard to the way locations are made in different mining camps. First.—Can a company locate a claim square, and hold all the ledges and minerals within said square? and, if so, how are locations of that kind made? Second.—Can a company holding a square location follow the dips, spurs and angles of their ledge or ledges into the grounds of other locations laying along side? Third.—How does a location made to hold a ledge differ from a square location. By answering the above questions through your valuable paper you will confer a favor upon many who are not posted.

Respectfully yours,

A MINER.

Stockton, March 5th, 1866.

1st. The location of a square claim holds all the ledges, minerals, and everything else within the lines of the square, perpendicularly, downwards.

2d. A company locating a square claim cannot follow the dips or angles of any ledge or mineral after it dips from their own into the ground of another claim.

3d. A "location made to hold a ledge" is supposed to be made along the line of such ledge, following all its turns and angles upon the surface, and its dips and spurs beneath the surface. It differs from a "square" location in the fact that it does thus follow the ledge, and is not confined in its depths to the perpendicular lines descending from the surface boundaries of the claim.

The Legislature of Nevada, at its late session, passed an act regulating the location and possession of mining claims for that State, which we intend to publish. The Territorial Legislature of Arizona has also passed a similar law, which was published in our issue of December 24th, 1864. With these exceptions, we believe no other State or Territory has enacted any such law. In all other States and Territories the miners in the different localities make such laws as may suit themselves, and the Courts, both State and National, respect these laws.

In new and distant localities, where no law exists, all that is necessary is for public notice to be given, calling a meeting of miners to organize a district, within certain stated boundaries, and enact suitable laws for the same. Any number who may be present at such meeting, so called, will be competent to act, and their action will be respected in all the Courts. A recorder, of course, should be appointed, who should make and keep a proper record of the first and all subsequent meetings, and properly record all claims which may be located.

NEW BOOK.

A GENERAL DIRECTORY AND BUSINESS GUIDE of the Principal Towns in the Upper Country, embracing a portion of California; together with Mining and Statistical Information concerning Idaho Territory, and a Map of Idaho and Montana."

We have received a copy of the above work, whose general character is sufficiently indicated by its title, forms a neat volume of about 160 pages. The "Business Directory" contains the address of firms in all the more important towns of Oregon, and of Washington and Idaho Territories, as well as in those places of California whose situation and business relations connect them with the "Upper Country." The map is well executed, and besides Idaho and Montana, it represents in outline, Oregon, and Washington Territory, together with the northern portions of California, Nevada and Wyoming, and shows the principal routes to the new mining regions.

The part devoted to mining and statistical information is quite full, giving brief descriptions of the quartz mills, and more important mines in each district, lists of locations already recorded, with the number of feet they contain, data respecting population, table of distances, etc., etc. We recommend the book to those having business relations with the "Upper Country."

[Translated and collated for the Mining and Scientific Press, by Dr. Lanszwert.]

The Transmutation of Metals---Singular Developments.

At the present time the term Alchemist is merely synonomous with "fool;" although in the dark ages it was a title of dignity given to the adepts in the mystical art, who sought by its aid to discover the "philosopher's stone," whereby they might transmute the base metals into gold, and prepare the "Elixir of Life." We say avarice, fraud, and folly were their motives, yet these ephemeral researches were instrumental, to an important extent, in the progress of the chemical art.

Balzac, to throw ridicule upon an unappreciated *savant*, remarked that "he is trying to make gold;" and George Sand compares the physiognomy of an indefatigable prospector to that of an alchemist, lost in the research of the absolute. Was it to that end that such men as Rhases, Avicenne, Bacon, Albert the Great, Raymond Lulle, Nicholas Famel, Paracelsus, and many others, have expended their lives over their crucibles and retorts.

The transmutation of metals was, in the middle ages, perfectly in accordance with the science of the day, and was not then in opposition to any known principle, but did have absolute facts for a starting point. They were simply misunderstood. It is true that among the adepts of alchemy there were quacks and fools who pursued the most ridiculous manipulations. Some heated mercury in close vessels during consecutive years, or indulged in the hope that by certain combinations of salts, gold could be obtained; others, through imposture, ventured even to deceive the public by pretended manipulations.

Among the arts of life some appear to possess a progressive character, while it is in the nature of others to be comparatively stationary. Take artificial illumination as an example of the former; its history belongs to all stages of human progress; it commences with the murky glow of the fire-brand, and step by step, slowly, surely it advances, until in the modern magneto-electric machine of Faraday, we are enabled to grind out an artificial sun-light, and compute it by horse-power standard Between these two extremes, the fire-braud, fit type of the dark ages, and the dazzling magneto-electric light, emblem of modern science, there are all intermediate phases of progress; and beyond the modern refined methods of illumination the improvements which may in the future take place are beyond prediction. Compare with this, for a familiar and somewhat parallel instance, the art of catching fish; compare the modern nets and hooks with those of the past ages—compare the harpoons, spears, and creels of civilized people with the contrivances of the African and other savages. If this be done it will be seen, we opine, that there is something belonging to the nature of practice itself, which relies upon simple methods, such as must soon be arrived at, and which once in practice have not the expansibility or property of growth belonging to instances of the first class. This view, as we have put it, is, we are aware, true in a degree only; but, accepted with caution, it will be found, we believe, in a multitude of instances, and, in the main, correct. The art of extracting gold from its matrices is, possibly, of a character intermediate between the two extremes above instanced. It affects simplicity, and certainly has progressed but little. The fleece sunk in Pactoleon streams by the shepherds of the old world, and thus gradually becoming golden, is represented by the druggets and blanketings of the quartz mills of the present day. The stamper is a hammer. The Chilian mill a pestle and a mortar; the amalgamating barrel, a churn. All these are indeed improvements for the mechanical extraction of gold from the rock; but inventions for gold extraction may be of a chemical nature. Let us consider how far we may indulge our hopes in this direction. We have heard of *fusion processes*. There was Longmaid's, and many other propositions of this nature, all of which have sunk into calm repose. There was an American invention, in which the quartz was to be admirably dissolved in a caustic solution, under pressure, and the gold, however finely divided, was to subside through the gelatinous mass; all this was to take place, and more than all this. The waste of the process was to supply, somehow, the refined productions of the ceramic art; it was to be stained and dyed with all the brilliant tints of the rainbow, and was to be consolidated into

blocks suitable for new and gorgeous styles of architecture. Our houses were to be translucent palaces of lapis, opal, and jaspar. Does not this sound as if we were ourselves romancing, and yet in truth we are but narrating a very mild edition of the announcement. Besides this there was a chlorine process, in which all former chemical experience was adroitly set at fault. These are instances of propositions for chemical processes, and they tend to show how small a progress has been hitherto made in adapting the processes of the chemist to the extraction of gold on the grand scale.

A few years since a famous professor of the University of Hall, named Semler, announced that he had discovered the *grand secret*. The Academy of Berlin indeed found in the retorts of the chemist the presence of gold, but a few days after it was discovered that his wife, to flatter his mania, had put gold leaf into his apparatus. Some years after, a similar deception was practiced in England. Dr. Price executed several times, in public, the transformation of mercury into silver and into gold, by the addition of a little *powder*. The Royal Society of London, of which Dr. Price was one of the most distinguished members, being impressed with the effect of these reported experiments, appointed an investigating committee to verify the fact. Price then pretended that he had no more *powder*; but, being put to the wall, he gave to his comedy a terrible and unexpected denouement by poisoning himself with prussic acid.

Although these unsuccessful attempts ought to give the last grace to alchemy, others came forward which seemed to confirm the possibility of the transmutation of metals.

Thus Van Helmont relates that, in 1518, he received a quarter of a grain of a substance by which he converted eight ounces of mercury into pure gold. Helvetius, physician to the Prince of Orange, claimed to have obtained the same result; and the Count de Reuss transformed, in the presence of the Emperor Ferdinand III., two pounds and a-half of mercury into fine gold by one grain of a *red* powder. With this gold a commemorative medal was struck, which could be seen as late as 1787, at the Treasury Department at Vienna.

At the present time the "secret art" and the researches of the middle ages are held in less derision than formerly. The phenomena of allotropism and isomerism sustain the opinions of Bacon, Verulam, Spinoza, Leibnitz, and Sir Humphrey Davy, who as the priests of Hermes, believed in the philosopher's stone, and in the transmutation of metals. Many of our readers will be astonished to learn that two of the most illustrious chemists of the present day, M.M. Dumas and Berthelot, entertain the same opinion.

A few months ago, Berthelot, in a lecture at the College of France, expressed himself as follows: "The synthesis tends to the demonstration of this capital truth, that the chemical forces which govern organic [inorganic?] matter are really, and without reserve, the same which govern animal matter."

M. Dumas gives, in his excellent lessons on philosophical chemistry, the following significant words: "Is it possible to admit simple bodies to be isomeric? This question touches closely that of the transmutation of metals. Affirmatively answered it would imply chances of success in the search for the philosopher's stone. We must then consult experience, and experience, it must be confessed, is not as yet opposed to the possibility of the transmutation of elementary substances. On the contrary, it even argues against our repulsing this idea as one which is demonstrated by the present state of our knowledge to be an absurdity.

The question of the transmutation of metals has recently made a new advance, thanks to the learned researches of Dr. Henry Favre, and of M. Franz, the metallurgist, of Paris. The possibility of transforming silver, copper, and mercury into gold, announced by them, has strongly attracted the public attention. Nevertheless, in making their discovery public, the object of the inventors has been less to prove that they have succeeded in making gold, than to demonstrate the *essential instability* of elementary substances, the importance of which fact, in the scientific world, is very great.

All substances in nature owe their respective properties only to the fixation of forces, which have passed, for the time being, into a static condition, but which are always capable of being called forth into a state of free activity. All these substances, then, according to M.M. Favre and Franz, should be regarded as produced by the operation of one and the same common and original principle. It does not follow, however, that the metals are composed of still simpler elementary bodies, which, by their intimate union, have hitherto escaped the means of analysis. They should rather be considered as simple in a chemical sense, but as composite in a dynamico-static sense. This principle once admitted, it was easy to determine the experiments that should be made, and which have been made accordingly. Among these we will here record but one—the third. It is so simple, quickly performed, and will, we think, be perfectly intelligible to our readers.

A certain quantity of chlorhydrate of ammonia (sal ammoniac) is dissolved in ammonia. The salt should be well pulverized. This solution is filtered if it is turbid. Chloride of silver, still damp and perfectly white, is then added to it, and the flask is shaken. The chloride of silver dissolves, and the liquor immediately becomes turbid, assuming at the same time a yellow color. Upon resting a while, a yellow powder is deposited, which is collected with care. The following are the characteristics of this powder:—

1. Treated with aqua regia, it dissolves completely, and a new addition of ammonia re-precipitates it.
2. It is not fulminating.
3. It furnishes gold by electrolysis, that is, at the two poles of an element of Bunsen.

It will be seen that there is here produced a most remarkable fact; that is, a transformation and a separation simultaneously. The ammonia is the solvent of the chloride of silver, and at the same time the reagent of the metal transformed by the chlorine.

It results from the experiments of M.M. Favre and Franz that the transformation of silver into gold takes place in two distinct stages or phases. The first has for its object the change of condition of the silver, which does not yet, however, constitute gold. The second has for its object and result the change of this new indeterminate body into the definite condition of fine gold.

Such a subject deserves, perhaps, to be treated more in detail; but we shall return to it when M. M. Favre and Franz shall have published their proceedings relative to the transformation of copper and mercury into gold. The question is well worth the trouble.

Important to Secretaries.

The following Act (introduced by Senator ROBINSON) has been passed by both branches of the Legislature, and will take effect immediately upon the approval of the Executive:

AN ACT CONCERNING ASSESSMENTS UPON THE STOCK OF CORPORATIONS.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. The Trustees of any corporation, formed under the general laws of this State, shall have power to levy and collect, for the purpose of paying the proper and legal expenses of such corporation, assessments upon the capital stock thereof, in the manner and form and to the extent hereinafter provided, and not otherwise.

SEC. 2. No one assessment shall exceed five per cent. of the stated amount of the capital stock of the corporation, named in the articles of incorporation, and none shall be levied while any portion of any previous assessment shall remain unpaid, or uncollected, except in cases where all the powers of the corporation shall have been exercised in accordance with the terms of this act, for the purpose of collecting such previous assessment, and except, also, the collection of a previous assessment against one or more stockholders, restrained by injunction or otherwise; in which case, further assessment may be levied and collected according to this act.

SEC. 3. No assessment shall be levied except by order of the Board of Trustees, concurred in by a majority of said Board, and entered upon the records of the corporation.

SEC. 4. Every order levying an assessment shall specify the amount thereof and the time when the person or persons to whom and the place or places where the same is payable. It shall also appoint a day subsequent to the full term of publication of the assessment notice on which the stock upon which assessments remain unpaid shall be deemed delinquent, which said day shall not be less than thirty, nor more than sixty days, from the time of the making of the said order levying the assessment, and a day for the sale of delinquent stock, which shall not be less than fifteen, nor more than sixty days from the time appointed for declaring said stock delinquent.

SEC. 5. Upon the making of such an order, the Secretary shall cause to be published immediately a notice thereof in the following form:

"[Name in full.] [Location of works.] Notice is hereby given that at a meeting of the Trustees of said Company, held on the [date], an assessment of [amount] per share was levied upon the capital stock of said Company, payable [when, to whom, and where, particularly]. Any stock upon which said assessment shall remain unpaid on the [day fixed] shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the [day appointed], to pay the delinquent assessment, together with costs of advertising and expenses of the sale. [Signature of the Secretary, with particular location of office.]"

SEC. 6. Said notice shall be published once each week for four successive weeks in some daily or weekly paper published at the place designated in the articles of corporation as the principal place of business of the corporation, and also in some paper published in the county in which the works of the corporation are situated, if a paper be published therein: *provided*, that if the works of the corporation are not situated within some State or Territory of the United States, then publication in a paper of the County shall not be necessary; *provided, also*, that if there is no newspaper published at the place designated as the principal place of business of the corporation, then the publication shall be made in the newspaper published nearest thereto; and *provided, also*, that the notice specified in the 5th section of this act may be served by delivering a copy thereof, certified by the Secretary, to each stockholder personally, and in case of such service upon all the stockholders of said corporation, then no notice by publication shall be necessary, and such personal notice shall be deemed complete.

SEC. 7. If any portion of the assessment mentioned in said notice shall remain unpaid on the day specified therein for declaring the stock delinquent, the secretary shall, unless otherwise ordered by the Board of Trustees, cause to be published in the same papers in which the notice provided for in Sec. 5 shall have been published, a notice substantially in the following form:

"[Name in full. Location of works.] *Notice.*—There is delinquent upon the following described stock, on account of assessment levied on the [date,] [and assessments levied previous thereto, if any,] the several amounts set opposite the names of the respective shareholders, as follows: [Names, number of certificate, number of shares, amount.] And in accordance with law, [and an order of the Board of Trustees, made on the [date,] if any such order shall have been made,] so many shares of each parcel of said stock as may be necessary, will be sold at the [particular place,] on the [date] at [the hour] of said day, to pay said delinquent assessments thereon, together with costs of advertising and expenses of the sale. [Name of Secretary, with particular location of office.]

SEC. 8. Said last named notice shall state every certificate of stock with the number of shares which it represents, and the amount due thereon, separately, except where certificates may not have been issued to parties entitled thereto, in which case the number of shares and amount due thereon, together with the fact that the certificates for such shares have not been issued shall be stated.

SEC. 9. Said notice, when published in a daily or weekly paper, or in both, shall be published as follows: When published in a daily paper, the same shall be published for a period of ten days, excluding Sundays and holidays, previous to the day of sale. When published in a weekly paper, the same shall be published for two weeks previous to the day of sale. The first publication of all delinquent sales shall be at least fifteen days prior to the day of sale.

SEC. 10. By the publication of the said notices, as hereinbefore provided, the corporation shall acquire jurisdiction to sell and convey a full, complete, perfect, and absolute title to all of the stock described in the notice of sale upon which any portion of the assessment or costs of advertising shall remain unpaid at the hour appointed for the sale, but shall sell no more of such stock than is necessary to pay the assessments due and cost of sale.

SEC. 11. On the day and at the place, and as nearly as may be at the hour appointed in the notice of sale, the Secretary, who is hereby fully empowered and authorized, shall, unless otherwise ordered by the Board of Trustees, sell, or cause to be sold at public auction, to the highest bidder for cash, so many shares of each parcel of said described stock as may be necessary to pay the assessment and charges thereon, according to the terms of said notice of sale; *provided*, that if payment be made before the time fixed for sale, the party paying shall only be required to pay the actual cost of advertising.

SEC. 12. The person offering at such sale to pay the assessment and costs for the smallest number of shares, or fraction of a share, shall be deemed the highest bidder.

SEC. 13. If, at the sale of any stock under the foregoing provisions of this Act, no bidder shall offer to take and purchase the same for the amount of the assessments, and costs and charges then due upon the same, then and in such case the same may be purchased and bid in by the company or corporation, through the Secretary or President, or any Director or Trustee thereof, at a sum equal to the amount of the assessments, costs, and charges due upon the same; and in pursuance and by virtue of such purchase, the said assessments, costs and charges, shall be credited, as satisfied and paid in full, on the books of such corporation, and entry of the transfer of such stock to such corporation, in pursuance of such sale and purchase, shall be made on the books of said corporation. While such stock shall remain the property of such corporation, the same shall not be assessable, nor shall any dividends be declared upon the same; but all assessments and dividends shall be apportioned upon and against the other stock of such company not owned by such corporation. All purchases of its own stock made by any corporation, in accordance with the provisions of this section, shall be held valid, and as vesting the legal title to the same in said corporation; and the stock so purchased shall be held subject to the control of the remaining stockholders, who may make such disposition of the same as they may deem fit, in accordance with the by-laws of the corporation or vote of a majority of all the remaining shares. Whenever any portion of the capital stock of any corporation is held by the said incorporation by purchase as aforesaid, a majority of the remaining shares of stock in said corporation shall be held to be a majority of the shares of the stock in said corporate company for all purpose of election or voting on any question before a stockholders' meeting.

SEC. 14. The times or dates fixed in any notice of assessment or notice of delinquent sale, published according to the provisions of this act, may be once extended for a period of not more than thirty days, by order of the Board of Trustees, duly made and entered on the records of the corporation, but no order for extending the time for the performance of any act specified in any notice shall be effectual unless notice of such extension or postponement be appended to and published with the notice to which [the] order relates.

SEC. 15. No assessment duly levied shall be rendered invalid by a failure to make proper publication of the notices hereinbefore provided for, nor by the non-performance of any act required to be performed in order to enforce the payment of the same; but in case of any substantial error or omission in the course of proceedings for collection, all previous proceedings, except the levying of the assessment, shall be void, and publication shall be begun anew.

SEC. 16. No action shall be sustained to recover any stock, or invalidate the sale of any stock for delinquent assessments, upon the ground of any irregularity in making the assessment, or for any irregularity in or defect of the notice of such sale, or for any defect or irregularity in the sale, unless the party seeking to maintain such action shall first pay or tender *to the corporation or the party holding such stock so sold*, the sum for which the same was sold, together with all subsequent assessments which may have been paid thereon, and interest on such sums from the time they were paid; and no such action shall be sustained unless the same shall be commenced by the filing of a complaint and the issuance of a summons thereon within six months after such sale shall have been made.

SEC. 17. "An Act Concerning Assessments upon the Stock of Corporations," approved April 4th, 1864, and all Acts and parts of Acts, inconsistent with the provisions of this Act, are hereby repealed; *provided*, that such repeal shall not affect proceedings commenced for the collection of assessments heretofore levied, but all such assessments may be collected in accordance with the provisions of the laws then in force.

SEC. 18. This Act shall take effect immediately.

THE USE OF SODIUM.—The *Alta* of this city, in noticing the experiments of Professor Silliman in the use of sodium, which we gave at length three weeks ago, adds the following confirmatory evidence:

We add to the opinion of Professor Silliman the experience of R. B. Gray & Co., manufacturing goldsmiths of this city. They have been in the habit of reducing the "sweeps"—that is the sweepings and refuse of their establishment—into which considerable quantities of the precious metals find their way, and at the last reduction, after the sweeps had been put through the regular process, and were ready to be thrown away, according to custom, an experiment was tried by working them over again with sodium. The result was that nearly as much gold was obtained from the second process as from the first. This work was done in a Knox amalgamating pan. It will be observed that these experiments relate only to the amalgamation of gold. Mr. Kustel, one of our most competent metallurgists, has given it as his opinion that no plan has yet been devised for using sodium to advantage in silver mining.

THE guards on the trains on the Swedish railways are required to have a knowledge of the elements of surgery, that in case of accidents they may be able to render medical assistance. An ambulance, fitted up with every requisite, forms a part of each train.

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San Francisco, Oct. 12, 1865 .6v11tf

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Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done. 20v11-1m

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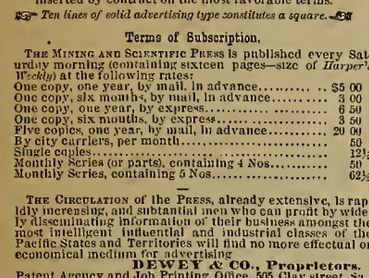

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THE GOLDEN ERA, instead of economizing during these dull times and presenting a paper to match the times, is as brilliant as ever. It has a talented corps of literateurs, and keeps fully up to the mark.—[S. F. Dramatic Chron.

THE GOLDEN ERA is now in its fourteenth year of publication, and is established on a firm basis. It has a larger number of regular contributors, and gives a greater variety of reading matter than any other paper of the kind published in San Francisco.—[Quincy Union.

THE GOLDEN ERA has commenced its fourteenth year with a steady improvement in literary and typographical appearance.—[Yreka Journal.

THE GOLDEN ERA began in the infancy of the State, and has grown with it, until there is now hardly a post office in the State, or on this coast, where it is not taken. It employs the best writers in the Atlantic States, in Europe, and in California.—[Colusa Sun.

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REV. P. V. VEEDER,
Principal of the City College.
6v12tf Or at 406 California Street.

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SANTA CLARA, CAL.

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For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.

3v11 REV. A. MARNATA, S. J., President.

SACRAMENTO SEMINARY.

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For further information, send for Circular.

3v12-3m **C. J. PLATT, Principal.**

ANNUAL REPORT

—OF THE—

Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLature of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS.

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire	$12,973,949
Marine	484,408

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Alex. Seligman,	Wm Hooper,	Lloyd Tevis,
Anson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
W. G. Rice,	H. Homasmann,	John D. Earl,
C. Meyer,	L. B. Beuchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alphens Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.

4v12-3m

BUY

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—OF THE—

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New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Good Hope Gold and Silver Mining Company, Alpine District, Alpine County, California.

On and after April 23d, 1866, the Office and principal place of business of the above Company, will be located in the town of Markleeville, Alpine County. By order of the Board of Trustees.

PRESTON MORRIS, Secretary.
San Francisco, March 23, 1866. mar24 3w

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of February, 1868, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Adams, Geo G	215	5	$ 7 50
Adams, Mary E	15	10	15 00
Andrews, M O	not issued	100	150 00
Brayton, J G	102. 103, 104, 105 127, 128, 129, 130 131, 222, 223, and 224 10-ea	120	180 00
Brayton, J G	106	4	6 00
Brayton, J G	225	2	3 00
Berry, Harrison	101	25	37 50
Booker, W L	255	10	15 00
Bolts, John	271	1	1 50
Boggs, Geo W	137	8	9 00
Boges, A G	67	11	16 50
Bowland, Wm	241	5	7 50
Bell, Jonathan	88	5	7 50
Burk, John	236	10	15 00
Brown, Thos	234	10	15 00
Bradbury, Wm	159	5	7 50
Breed, T L	not issued	75	112 50
Coon, M R	110 and 111 25-ea	50	75 00
Coon, M R	114	5	7 50
Cone, Harriett E	19	5	7 50
Cook, A J	93	10	15 00
Clark, J Warren	not issued	10	15 00
Clark, Sarah A	122	5	7 50
Clark, Miriam	124	25	37 50
Clark, P A	115	5	7 50
Clark, P A	116 and 117 1-ea	2	3 00
Clark, P A	110 and 121 4-ea	8	12 00
Clark, P A	120	3	4 50
Cornwell, J F	82 and 83 10-ea	20	30 00
Coulter, Samuel	141	10	15 00
Calderwood, Mathew	160	10	15 00
Carmichael, A	230, 231, and 232 10-ea	30	45 00
Carmicbael, A	233	9	13 50
Custer, John	278	5	7 50
Cone, Jesse B	18, 133 and 134 10-ea	30	45 00
Cone, Jesse B	126	5	7 50
Cheeney, A W	not issued	110	165 00
Denning, Wm	163	10	15 00
De Graff, Wm	142, 143, 144, 145 148 and 216 10-ea	60	90 00
Davidson, Ole	57	5	7 50
Dutton, David	244	4	6 00
Dutton, David	219, 220, 242 and 243 10-ea	40	80 00
Eagan, E D	140	2	3 00
Elsworth, Wm	180	5	7 50
Grigsby, T L	99	10	15 00
Grigsby, A D	100	10	15 15
Grigsby, E D	77	10	15 00
Grigsby, R F	169	10	15 00
Gillam, Jas	73 and 74 10-ea	20	30 00
Green, Joseph	218	10	15 00
Griswold, M T	not issued	85	127 50
Hargrave, E J	170	5	7 50
Hayward, C C	45	5	7 50
Hammett, E W	264	10	15 00
Hackney, H W	137	5	7 50
Hastie, Robert	259	10	15 00
Hill, V R	69, 70, and 71 5-ea	15	22 50
Hughes, James	179	2	3 00
Hughes, James	292	3	4 50
Hendrickson, Henrietta	280	5	7 50
Herbert, Henrietta	20	10	15 00
Kather, Chas	90	15	22 50
Kercheval, Sarah A	240	10	15 00
Luciani, Charles	90	15	22 50
Linn, Geo	223	10	15 00
Lindan, A	257	5	7 50
Lawrence, F S	not issued	90	135 00
McLea, Donald	27	1	1 50
Mudgett, John	281 and 282 5-ea	10	15 00
Mott, Hiram	258	13	19 50
Mercer, Susan	98	10	15 00
Mylett, James	227 and 228 10-ea	20	30 00
Mylett, James	229	8	12 00
McGee, Jas	78	5	7 50
Mecklenberg, Joseph	272	5	7 50
Miller, G A	91	10	15 00
Marks, M	106	5	7 50
Mason, Chas	254	5	7 50
McGill, Wm	41	5	7 50
Mosher, Wm H	139	5	7 50
McDonald, A C	184	7	10 50
McGrath, J J	not issued	80	90 00
Nelson, J G	58	5	7 50
Nelson, A G	55	1	1 50
Nelson, Christopher	92	6¾	10 50
Pearson, I N	198	21	31 50
Pearson, I N	199, 200, 201, 212 and 213 5-ea	25	37 50
Phillips, W L	92	15	22 50
Phillips, W L	275	10	15 00
Pilkington, J B	75 and 76 20-ea	40	60 00
Pilkington, J B	77	8	12 00
Potter, J C	97	5	7 50
Phelps, Tracy F	not issued	85	97 50
Ransdell, S W	245	5	7 50
Roberts, J R	279	6	9 00
Robinson Chas F	not issued	25	37 50
Squarza, V	107	5	7 50
Severson, T	not issued	4	6 00
Sedgley, Jas T	not issued	105	157 50
Townsend, T B	87	10	15 00
Vann, Mathew	161	5	7 50
Virk, J	269	10	15 00
Whilton, C J	283	10	15 00
Whilton, M S	185, 186, 187, 188 189, 190, 191, 192 193, 194, 195, 196 10-ea	120	180 00
Whilton, M S	291	7	10 50
Whitton, Wm H	204, 205, 206, 207 237, 238, and 239 10-ea	70	105 00
Whitton, Wm H	287	5	7 50
Whitton, Green	84, 85 and 86 10-ea	30	45 00
Whitton, E	95	10	15 00
Whitton, Wm T	214	10	15 00
Wyckoff, J L	274	10	15 00
Williams, Samuel	89	30	45 00
Williams, Saumel	280	5	7 50
Woodward, E P	111	10	15 00

And in accordance with law, and an order of the Board of Trustees, made on the said 20th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of Olney & Co., No. 626 Montgomery street, on the 10th day of April, 1888, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.
Office, 338 Montgomery street, San Francisco. mar24

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Beard & Seaver Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Blue Ledge Gold and Silver Quartz Mining Company, Kelsey District, El Dorado County, California.

Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of one dollar ($1.50) and fifty cents per share on each and every share of the capital stock of the Blue Ledge Gold and Silver Quartz Mining Company, was levied, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, at 12 o'clock M. of that day, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

mar17 J. M. BUFFINGTON, Secretary.

Comet Petroleum Company, Mattole District, Humboldt County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of January, 1866, an assessment (No. 21) of thirty (30) cents per share was levied upon the capital stock of said Company, payable on the 23d day of January, 1866, in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 36 Exchange Building, Montgomery street, in the city of San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

L. CROSBY, Secretary.

Office, 36 Exchange Building, Montgomery street, San Francisco, California. mar3

Evening Star Gold and Silver Mining Company, Humboldt County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of February, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. DUPERU, Secretary.

Office, Pier 22 Stewart street, San Francisco, Cal. mar3

Eagle Quartz Mining Company, Amador County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary, at the Office of the Company, No. 10 Exchange Building, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on the 25th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Building, San Francisco, California. mar10

Harker Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of March, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. L. GETCHELL, Secretary.

Office, No. 19 First street, San Francisco, Cal. ma3

Honest Miner Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of March, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 18th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front Street, San Francisco. mar10

Julia Gold and Silver Mining Company, Virginia, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 1st day of March, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 16th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. mar3

Jefferson Gold and Silver Mining Company, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of March, 1866, an assessment of fifty cents (50) per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
W W Theobalds	9	100	$10 00
J McMahon	557	50	5 00
Geo F Sharp	425	200	20 00
F Loeber	278	200	20 00
F Loeber	279	50	5 00
F Loeber	297	120	12 00
F Loeber	330	30	3 00
F Loeber	347	00	9 00
F Loeber	350	20	2 00
F Loeber	374	45	4 50
F Loeber	379	70	7 00
F Loeber	405	100	10 00
F Loeber	431	15	1 50
F Loeber	475	75	7 50
F Loeber	495	150	15 00
F Loeber	508	59	5 90
F Loeber	513	241	24 10
F Loeber	514	155	15 50
F Loeber	527	163	16 30

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co, at No. 626 Montgomery street, San Francisco, on the 31st day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. B. WINEGAR, Secretary.

Office, 308 and 310 Front street, San Francisco. mr17

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, at the office of the Company, or to Geo. H. Russell, at Crescent City.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

C. HEYWOOD, Secretary,
mar17 No. 301 Market street.

Madison Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Monitor Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of seventy-five cents per share was levied upon the Capital Stock of said Company, payable immediately in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco mar17

Mosquito Quartz Mining Company, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 3d day of March 1866, an assessment of five dollars ($5) per share ($1 per foot) was levied upon the capital stock of said Company, payable on Monday, March 5th, 1866, in United States gold and silver coin, to E. D. Waters, Jr, Treasurer, at the office of the Company, 536 Clay street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 23d day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

E. H. WATERS, Secretary.

Office, 536 Clay street, San Francisco. mar10

Oregon Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Oxford Bela Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, or to the Superintendent, at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 25th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretary.

Office, corner Broadway and Sansome streets, San Francisco. mar10

Old Colony Gold and Silver Mining Company. Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 8th day of March, 1866, an assessment of four (4) dollars per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, No. 523 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. O. HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco, second floor. mar10

Pride of the East Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 13th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Friday, the 27th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Providence Gold and Silver Mining Company. Location of Works: Nevada Mining District, Nevada County, Cal.

NOTICE.—There are delinquent upon the following described Stock, on account of Assessment levied on the 5th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
John S Carter	100	20	$20 00
John S Carter	101	20	20 00
John S Carter	115	10	10 00
Phebe E Carter	167	5	5 00
Peter M Cain	170	10	10 00
Jos C Collins	232	10	10 00
Jos C Collins	233	10	10 00
Jos C Collins	234	10	10 00
Jos C Collins	235	5	5 00
Jos C Collins	259	10	10 00
Jos C Collins	260	10	10 00
Jos C Collins	261	10	10 00
Jos C Collins	262	5	5 00
Allen Cody	247	10	10 00
W P Davidson	25	3	3 00
Chas Haisell	152	23	23 00
Chas Haisell	150	20	20 00
Mills & Evans	135	6	6 00
Spencer Poole	251	25	25 00
J R Richards	108	5	5 00
J R Richards	253	25	25 00
Maria Sutherland	121	10	10 00
J B Sutherland	128	10	10 00
M Smouer	171	10	10 00
Bertha Seaman	199	5	5 00
H T Tiburu	08	2	2 00
J J Robbins	198	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 31st day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House. mar17

Southern Light Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment (No. 8) of twelve dollars and fifty cents ($12 50) per share, levied February 6th, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
United R R S M Co	117	150	$1,875 00
Light, C H	9	6¼	78 13
Blanchett, H N	23	5	62 50
Watkins, Geo E	180	20	250 00

And in accordance with law, and an order of the Board of Trustees, made on the 6th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, No. 228 Front street, San Francisco, Cal., by Jones & Bendixen, auctioneers, on Monday, the 26th day of March, 1866, at 3 o'clock P. M., to pay the delinquent assessment, together with costs of advertising and expenses of the sale.

E. J. BRINKHOUSE, Secretary.

Office, No. 228 Front street, San Francisco, Cal. ma10

Santa Cruz Petroleum Oil Works Company, Location: Santa Cruz County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of March, 1866, an assessment (No. 15) of fifty cents per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary, R. Wegener, 415 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal. mar17

Silver Cloud Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 13th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Friday, the 27th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

United States Mining Company, Virginia District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 7th day of February, 1860, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Jas L Blaklo	304	50	$25 00
Jeremiah Dwyer	310	20	10 00
M B French	406	50	25 00
Chas Hauson	329	10	5 00
C L Harvey	330	10	5 00
A C Knox	74	2	1 00
John McArthur	412	50	25 00
H S O'Neal	328	10	5 00
John Le naiman	179	5	2 50
John Penniman	387	20	10 00
D J Perkey	413	50	25 00
Horace Porter	323	250	125 00
J B Quion	327	10	5 00
J L Shiman	215	5	2 50
J L Shiman	216	5	2 50
J L Shiman	391	10	5 00
S A Snow	379, 380, 381, 382, 383	10 ea	50 25 00
S W Stoddard	407	35	17 50
Wm Van Housen	390	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 7th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 31st day of March, 1866, at the hour of 12 o'clock, M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House. mr17

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of February, 1866, an assessment of two dollars ($2) per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 210 Pine street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on Saturday, the 31st day of March, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 14th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up stairs, San Francisco. mar 3

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

VOLUME TWELFTH.—The MINING AND SCIENTIFIC PRESS, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

COMPLIMENTARY.—The Stockton *Independent*, in acknowledging the reception of a copy of the biennial school report of our present worthy Superintendent of Public Instruction, suggests that the document should be placed in the hands of each board of school trustees, and every teacher throughout the State. The same paper further takes the opportunity to pay the following well deserved compliment to that officer:

We think Superintendent Swett is proving himself a very diligent, intelligent and earnest friend of popular education—in fact, one of the leading benefactors of this coast—and it is not exactly the thing to hide his light under a bushel by stinting the circulation of his report.

THE STATUE OF LINCOLN.—The artist, Mr. P. Mezzara, is busily engaged in perfecting his statue of Lincoln, which was exhibited at the late Fair of the Mechanics' Institute, in this city. The finishing touches will all be completed by the end of the present month. It is to be placed upon a proper pedestal in front of the Lincoln School House, where the foundation has already been prepared. We understand it will be uncovered to the public on the 15th of April, the anniversary of the assasination of the great and good man, whose memory it is designed to perpetuate. The artist has allowed the statue to be placed there for a mere nominal sum—its cost and the necessary expenses of mounting it. The cost has been defrayed by subscription, and the statue is the first raised in the country to the memory of our martyred President.

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for BOOK AND PAMPHLET PRINTING entrusted to the Mining and Scientific Press Job Office.

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, Califor ia. 23v11tf

FOR SALE.

Owing to the great distance from our point of manufacture, we offer for sale the State Right of California for our

Patent Bor'ng Tools for Artesian Wells,

Illustrated upon the first page of this paper February 17th. These Tools are now in use in the various Oil Regions of Pennsylvania, Ohio and Virvinia; and although but just introduced, are universally approved and admired, and bid fair to become eventually the most popular tools in use. We shall close without reserve to the party sending us the higbest bid, to whom we will mail a complete set of Drawings, copy of Circulars, etc.

Address, fully,

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Morgan Iron Works,
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83 Clay Street. PAPER WAREHOUSE AND Printers' Materials CHAS. F. ROBBINS & CO. 83 Clay Street.
10-v12

GEORGE E. BROWN,

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He will make Preliminary Examinations in the Patent Office, with a view to ascertain the Patentability of any invention that may be submitted to him for that purpose; will prepare the necessary papers for those who wish to make Applications for

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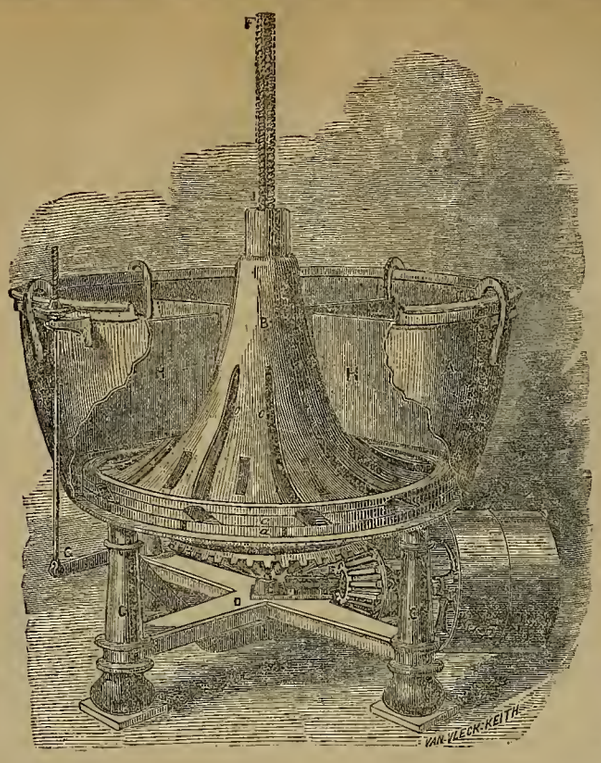

THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

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15v11

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K Street, between Third and Fourth,
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IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.
Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

WHAT CHEER HOUSE,

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Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals.....25 cents.
Board, per week.....$4 00
Board and Lodging, per day..... 1 00
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Railroad Ticket Office and Stage Office on first floor.
7v12-3m **A. J. SENATZ, Proprietor.**

The Excelsior Hat

—OF—

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Paris, New York and London Styles

For Spring and Summer, 1866,

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SATURDAY.....MARCH 3

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Especial attention also deserve our
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CHESTER,
CRESCENT,
NEWPORT,
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CLARENDON RESORTE.
☞ Call and see them. 9v12-3m

MINING PROPERTIES.

PARTIES WISHING MINING PROPERTIES CAN BE accommodated by applying to the Pacific Mineral Co., 434 California street, next door east of the Pacific Insurance office, up stairs. W. F. BRYANT, Agent.

N. B.—Parties forwarding Mining interests for disposal, are reminded that it is important to state such facts only as can be fully substantiated, upon a careful examination of said properties, thereby greatly enhancing the chances of success, and avoiding the useless loss of time and trouble.
1v12

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AMERICAN WATCH FACTORY.
A large assortment of these
Superior Watches,
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Constantly on hand, and sold at Factory prices. Also,
ENGLISH AND SWISS WATCHES,
Imported directly from he Manufacturers.
The American Company are now making
VERY FINE WATCHES FOR LADIES.
☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

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CLOTHING MADE FROM CALIFORNIA CLOTH,
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10v11-3m

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A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.
San Francisco, March 6, 1865. 11v10-tf

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Family Chartres Coffee,

AND SPICES OF ALL KINDS.

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First Premium Awarded

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8v10 Cor. of Washington and Sansome streets.

THE PRESS is a large, sixteen-page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—Inye County News.

FRENCH SCIENTIFIC EXPLORATIONS IN MEXICO. Napoleon III., it appears, seeks to imitate in Mexico the work for science and the arts which Napoleon I. accomplished in connection with the expedition to Egypt. The Minister of Public Instruction, in a report addressed to Emperor, proposed the appointment of a commissioner to prepare instructions for an expedition, and to superintend the publication of the results of observations on that country, made in connection with the army. In regard to the minerals and mines of Mexico, the report says:—

"What has been done by mining associations is worthy of praise, but what is known as yet of the mineralogical wealth of Mexico is undoubtedly the smallest part of that which exists. The sites thus far turned to profit are those, for the most part, which hazard has presented. A truly scientific exploration would disclose to this branch of industry a future of unexpected prosperity."

A SINGULAR RULE.—The Boston School Committee have so amended their school regulations as to forbid any teacher from receiving a present from any scholar or class in the public schools in that city. Not even a graduating class is allowed to make any demonstration of that kind of their appreciation of a teacher under whose direction they received their education. Such a rule appears unnecessarily arbitrary and severe, and would hardly be thought of in any other locality than the "city of notions;" albeit Boston has *some* most excellent notions, and especially about school teaching.

SCHOOLS IN TULARE COUNTY.—A correspondent of the Visalia *Delta* calls particular attention to the pleasing fact, and one which speaks volumes for the people of Tulare, that while in 1860 there were only five schools in the county, in 1865 there were *fifty*, and increasing in numbers. Those schools are well attended, and a general anxiety is manifested in the great cause of education.

Removal.

The Office of the MINING AND SCIENTIFIC PRESS has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our former location), where we may now be found, with more commodious apartments and an extensive JOB PRINTING OFFICE.

San Francisco, April 10th, 1865.

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the MINING AND SCIENTIFIC PRESS. 19v11tf

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1864, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

A Good Financial Weekly.

The Stockholder:

MONITOR OF FINANCE AND INDUSTRY,

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Quotations of all important Bonds and Stock Securities in the United States; GOVERNMENT, STATE, CITY, BANK, INSURANCE, PETROLEUM, MINING, and other miscellaneous Joint-Stock Organizations, with the Financial Statements of the same; Notices of Payment of Interest and Dividends—

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Its columns will be found replete with important and useful financial information.

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GEO. M. NEWTON, Publisher,

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Economy in Advertising.—THE MINING AND SCIENTIFIC PRESS is the best and most ECONOMICAL mining advertising medium in this city. Our terms are less than ONE HALF the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. THE PRESS contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Machinery.

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERATION daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; not a particle of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
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Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Willman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6tf

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of
Quartz or Ores
To a size suitable for stamps. These machines are patented, and are in practical operation in

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WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.
Address,

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CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amidgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ The Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th.

{Illustrated in the Mining and Scientific Press, April 9th, 864.}

HEPBURN & PETERSON.
nov8 3m*

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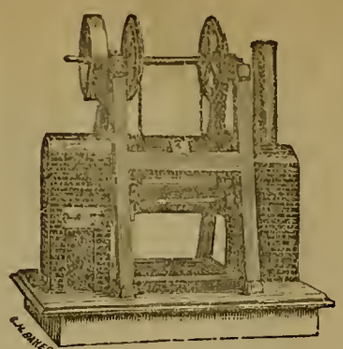

Parties wishing to erect such Furnaces, are requested to leave their orders with

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Portable Steam Engines!

"Hendrie's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

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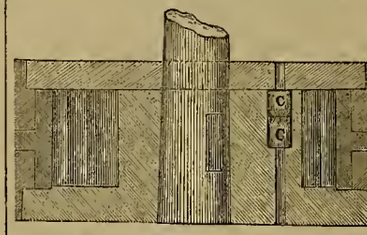
Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df **ANDREW STEVENS.**

QUARTZ OPERATOR'S
HAND BOOK

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,
Authors and Publishers.

BOUND IN CLOTH—144 PAGES, DUODECIMO.

THE QUARTZ OPERATOR'S HAND BOOK is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable QUARTZ MINER'S HAND BOOK.

☞ The Table of Contents of this book will be found on page 415 of the MINING AND SCIENTIFIC PRESS of July 1st, 1865.

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PATENT AMALGAMATOR.

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For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, but one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the **PACIFIC FOUNDRY,**
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Important to Miners.

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Where they are for sale by

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Proprietors for California.

San Francisco, March 3d, 1866. 10-v12

day of February, 1866, in United States gold and silver coin, Nevada District, Nevada County, California,

Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast

It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid.—[Nye County News

COST OF SURVEYS IN CALIFORNIA.—The Secretary of the Interior reports to the House that the cost of the survey of land in California up to the present time is $1,314,500, and the proceeds of all sales of lands $520,765.

MORE QUICKSILVER DISCOVERIES.—We have received notice of a new quicksilver discovery and the formation of a new district in the northern portion of Monterey county, the particulars of which we are compelled, for want of space, to lay over until next week.

Constitution and By-Laws
—OF—
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☞ Orders from the interior faithfully attended to.

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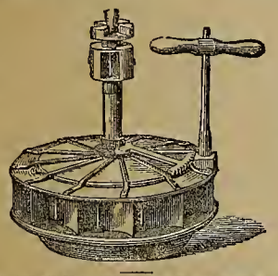
American Double Turbine



THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction wherever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall. Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

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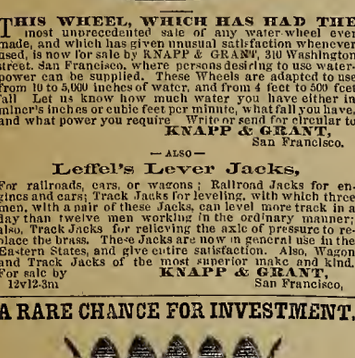

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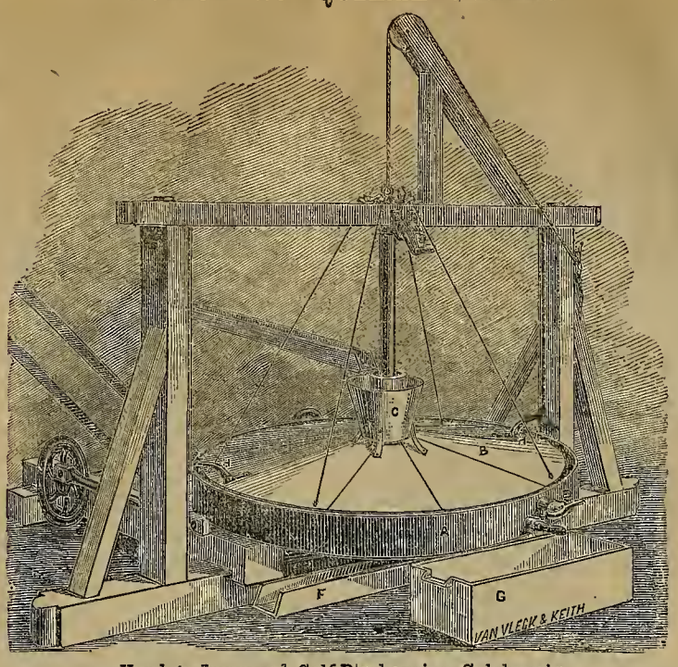

Hendy's Improved Self-Discharging Sulphurets

PRATER CONCENTRATOR

Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

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BLUE LEDGE MILL, near Spanish Flat, El Dorado Co.
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:
One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.
☞ For explanation of the above engraving, and other particulars, send for a Circular.

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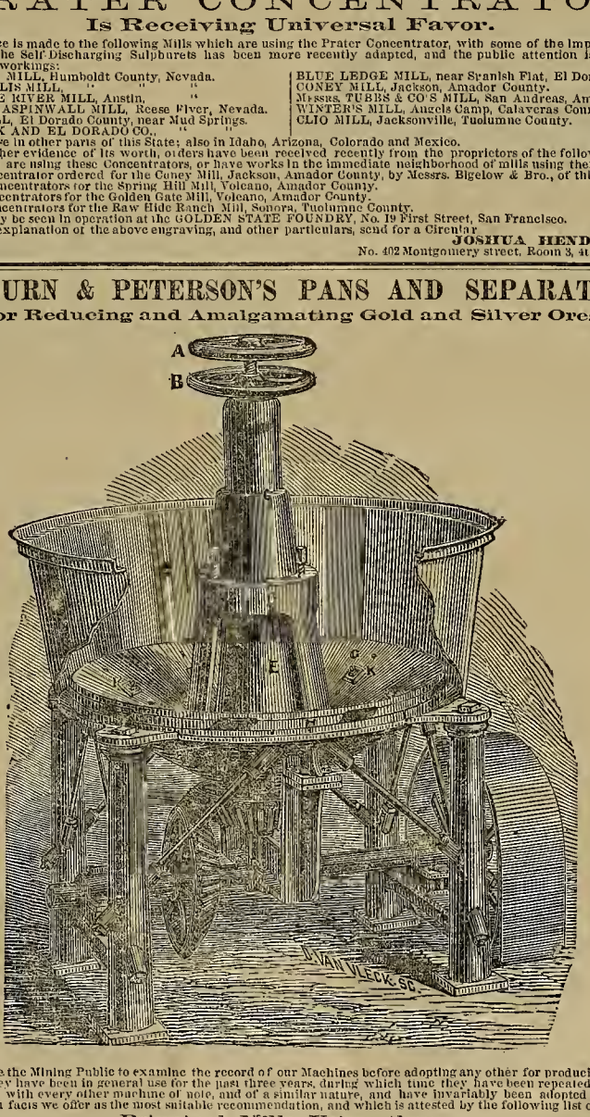
HEPBURN & PETERSON'S PANS AND SEPARATORS.

For Reducing and Amalgamating Gold and Silver Ores.



We invite the Mining Public to examine the record of our Machines before adopting any other for producing similar results. They have been in general use for the past three years, during which time they have been repeatedly tried in comparison with every other machine of note, and of a similar nature, and have invariably been adopted in preference; which facts we offer as the most suitable recommendation, and which is attested by the following list of

Principal Mills Using them:

Names of Companies.	Location of Mill.	Names of Companies.	Location of Mill.
GOULD & CURRY	Virginia City, Nevada.	TEAKLE, ROGERS & CO.	Nevada.
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OPHIR	Washoe City, "	HUGGIN & FORMAN	Silver City, "
EDWARD McLEAN	Silver City, "	YELLOW JACKET	Empire City, "
SANTIAGO	Zephyr Flat, "	BELOIN & GREGORY	Esmeralda, "
RAPHAEL & HUSTED	Gold Hill, "	HECKENDORN	Calaveras Co., Cal.
FRENCH & BESLER	Dayton, "	CARSON CREEK	Calaveras Co., "
HERMAN, KETSCHER & CO.	Carson River, "	CROWN LEAD	Mariposa Co., "
A. SUTRO	Dayton, "	BIG BLUE LEAD	Tulare Co., "
DAVIS & BARRON	Carson City, "	E T STEEN	Amador Co., "
PHŒNIX	Silver City, "	EAGLE	Amador Co., "
CHAS N COUVER	Silver City, "	IDA MILL	Owens River, "
PIONEER	Silver City, "	ALACRAN	Sonora, Mexico.
[illegible] BOOTHE & CO.	Virginia City, "	SANTA CLARA	Sonora, "
A. DELAND	Washoe, "	ROSARIO & CARMAN	Sonora, "
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Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departure of the 19th connects with the French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

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Departure of the 30th connects with English steamer for Sumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

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30th—CONSTITUTION.....Capt. F. R. Baby,
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An experienced Surgeon on board. Medicine and attendance free.

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For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

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MINING LAWS AND FORMS.

Third Edition revised and enlarged.

Compiled by H. B. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete; Digest of Decisions of the Supreme Court Forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

Published by H. H. BANCROFT & CO.

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume the 6th inst.—[Nye County News.

Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors.

SAN FRANCISCO, SATURDAY, MARCH 31, 1866.

VOLUME XII. Number 13.

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DEWEY & CO., Proprietors.

Patent Agency and Job Printing Office, 505 Clay street, San Francisco. April 1, 1866.

Look Out for Illegal Advertising!

All assessments of corporations levied on, or subsequent to, March 26th, are governed by the new law approved on that day. We notice some six or eight important mining companies are advertising their assessments illegally in the daily press of this city. As the new law is more liberal in its provisions for advertising than the Act of 1864, these companies have yet time to retrace their steps and begin anew and right. We speak of the matter for the benefit of all concerned. We have prepared a set of correct blank forms for advertising assessments, which we furnish free on application at our office, together with rules for advertising and copies of the new law.

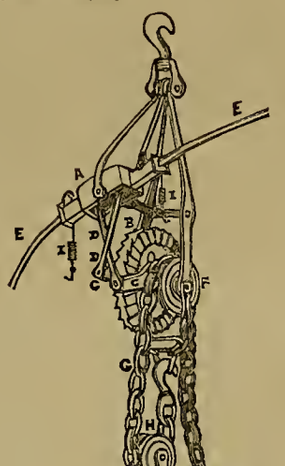
Mining Laws of 1866.

It is our intention to issue, in cheap pamphlet form, previous to May 1st, a full and correct copy of all laws relating to mining adopted by the California and Nevada State Legislatures of 1866. Some of these Acts are of vital importance to every citizen interested in mining.

A COMPANY of French capitalists have bought the lands of the St. Mary's mineral land company, on Lake Superior, for three millions of dollars in gold.

CRAWFORD'S ELEVATOR.

We have recently had the pleasure of witnessing the operation of "Crawford's Stamp and Rock Extractor and Elevator," at the warehouse and workshop of the California Steam Navigation Company.



The above figure represents the machine detached from its bearing, and consisting of a rocking beam, A, connected with a ratchet wheel B, by pawls CC, and cross hangers DD, so that when the beam is rocked by means of the levers EE, the wheel is kept in motion, carrying round with it a sprocket or chain wheel F, to which it is cast solid, and over which a heavy chain G, passes, and is kept from slipping by flanges projecting between the links, so that the more weight there is attached, the more securely it is held to the wheel; while any length of chain may be used, and a body raised to any hight. To double the power and strength of the machine, a heavy iron pulley H, is attached, as seen in the cut.

To reverse the action of the machine, spiral springs II, suspended from the arms of the rocking beam are hooked to the cross hangers, and with the same motion of the levers the wheel turns back, lowering the weight as far as necessary.

By giving proper proportions to the levers, etc., the theoretical power may be rendered very great, while the machine itself is very compact and simple.

The apparatus, as we saw it, appears to be well constructed, and its practical power may be inferred from the following facts. A piece of iron weighing 4,048 pounds is lifted easily by a man using only one hand, with a machine weighing say twenty pounds, and that could be packed in an ordinary carpet sack. A larger machine, weighing less than four hundred pounds, worked by two men, lifted two boilers weighing *fourteen tons*, as readily as the smaller one did the 4,048 pounds, and with four men at the brakes it is calculated to easily raise an engine weighing *forty tons*.

The machine may be suspended from shears for the purpose of pulling stumps, or it may be supported in a similar manner on a strong frame with wheels, thus forming a powerful sling cart for transporting rocks and other heavy bodies.

The uses to which such a machine can be applied are very numerous, and the San Francisco and San Jose R. R. Co. have ordered one of the larger size, for the purpose of lifting their locomotives while repairing them, it being more convenient to lift them thus than by hydraulic pressure. For raising boulders in hydraulic claims, hoisting anchors, and similar purposes, it must prove quite handy.

The invention was patented February 18th, 1862, and was recently brought here by Mr. J. L. Atkinson, who has the patent right west of the Rocky Mountains. He has associated himself with Mr. G. K. Gluyas, of the C. S. N. Co., in the business of manufacturing and selling them in this State. Some half a dozen Lifters have already been ordered, and the manufacture of them will be commenced immediately in San Francisco.

NEW INVENTIONS.

OIL EXTRACTOR.—Squarza, the celebrated punch manufacturer, has just received a patent from the United States, through the MINING AND SCIENTIFIC PRESS Patent Agency, for a new and ingenious machine for extracting essential oils from fruit, (such as oranges, lemons, pineapples, etc., without injury to them,) which consists of a hopper in which the fruit is placed, passing down through a series of compartments in which are placed sharp-pointed pins. The machine being slowly revolved, the fruit is transferred from one compartment to another, until the oil is essentially extracted. The inventor says, "I claim the compartments C D E F, having one or more perforated fixed covers, L, adjustable cover, K, with point, t, t, or their equivalents, arranged as herein described, and for the purpose set forth."

NEW MODE OF SHIP-BUILDING.—Mr. Joseph Halleck, of Grass Valley, has designed the following mode of building war and passenger steamships, which consists essentially of three keels, with three narrow compartments in the hull, giving two longitudinal spaces or tunnels on each side of the middle compartment, or main ship, above the water line. In these spaces the propellers or wheels are placed. They also afford fresh air for ventilation.

For ships of war the middle compartment, it is claimed, may be used as a ram, presenting a beak that would strike terror to the beholder Plates of iron cover the whole ship above the water line, and for a sufficient distance below, forming a rim with almost an acute angle, having port-holes around the whole ship, about on a line with the main deck. The upper surface arching over the whole ram is so arranged that, should the enemy's missiles strike the rim, or any other portion of the ship, they would glance either way over the arched surface above the deck, or down the angular sides of the vessel, and fall harmless into the water.

For affording comfort to officers and men, a cabin is placed above the deck, to be lowered when in action, together with the smoke-stack, and an iron grating placed over the spaces, leaving nothing above the deck but the pilot house.

The inventor is confident that passenger ships, as well as ships of war, can be constructed after his model that would cross the ocean in less time than any other known vessel in modern naval architecture, and with less liability of foundering at sea. A caveat has been ordered filed through this office.

NEW LOCOMOTIVE PICTURE.—Mr. S. P. Sanders, a roving, genuine artist, just now located at San Leandro, has laid upon our table a fine photographic view of the new locomotive, J. G. Kellogg, which has just been completed at the works of the Alameda Railroad Company, on the Encinal. The Kellogg weighs about twenty tons, is a regular built locomotive, of first-class appearance, according to the picture drawn by the truthful rays of the sun. Mr. Sanders also succeeded admirably in obtaining a perfect view of the Alameda workshops and engine-house. In our opinion there are but few photographers on this coast who can equal our friend Sanders in out-door views.

PAPER AND STATIONERY HOUSE.—Messrs. John G. Hodge & Co., at 418 and 420 Clay street, one of our most substantial importing firms, have recently extended their salesrooms by the addition of another story. Their stock of fine paper, blank books, stationery, etc., is choice and complete. Having dealt with these gentlemen ourselves with much satisfaction, we take pleasure in recommending their house to others.

CORRESPONDENCE.—"E. C. W.," Millerton, Fresno county, will receive attention next week; also, another letter from "Prospector," El Dorado county. Editorial items from Nevada county may be expected soon. We give this week some very interesting communications, and would call especial attention to the articls relating to the use of sodium, which emanates from the pen of one of our most experienced and reliable metallurgists.

COMMISSIONER TO THE WORLD'S FAIR. Mr. W. B. Ewer, principal editor of the MINING AND SCIENTIFIC PRESS, has been appointed, by concurrent resolution of the State Senate and Assembly, Commissioner from California to the World's Industrial Exhibition, to be held at Paris, in 1867. Mr. Ewer is now on a visit to his former residence, Grass Valley, and we congratulate him upon the distinguished honor thus voluntarily bestowed upon him. His many years' service in the cause of progressive science in California eminently qualifies and entitles him to the position.

JUST ISSUED.—The Seventh Annual Circular of the Miners' Foundry, printed at the Book and Job Printing Office of the MINING AND SCIENTIFIC PRESS, is now ready for distribution. Copies will be forwarded, free, by addressing "Miners' Foundry, San Francisco." It contains much interesting matter, and is the largest and most complete illustrated pattern list and advertising circular yet issued by any foundry on this coast.

THE deposits of gold and silver in the Philadelphia Mint for the month of February, were $1,408,652.06. The coinage was $960,033.50.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

BY W. A. GOODYEAR.

[CONTINUED FROM PAGE 178.]

We will next consider hollow, conical plates of uniform hardness.

Referring to the figure on page 109 of the Hand Book, and letting as there, $a =$ the radius of the hase, and h, the altitude of the cone, while y denotes the radius of any point in the surface, and also letting P denote the vertical pressure at the outer circumference when the plates are in motion, the vertical thickness of the upper plate heing uniform, we have the surface of that portion of the cone, the radius of whose hase is y.

(69) $S = \pi y^2 \frac{\sqrt{a^2+h^2}}{a}$. Differentiating (69), we ohtain

(70) $\frac{dS}{dy} = 2\pi y \frac{\sqrt{a^2+h^2}}{a}$. Now, the vertical pressure at the circumference is P. Therefore, its component there in a direction perpendicular to the surface, is

$$P \frac{a}{\sqrt{a^2+h^2}}.$$

Again, in this case, as well as in that of circular plates, and for the same reason, the actual wear of the plates must he uniform. Hence, we must have now the vertical presure at any point whose radius is y, $P' = P\frac{a}{y}$, the component of which, perpendicular to the surface, is

$$P'' = P\frac{a^2}{y\sqrt{a^2+h^2}}.$$

The distance passed over hy the same point in one revolution is $2\pi y$.

The expression for the grinding effect is, therefore,

$$(71) \int 2\pi y \times \frac{P a^2}{y\sqrt{a^2+h^2}} \times 2\pi y \frac{\sqrt{a^2+h^2}}{a}\, dy = \int 4\pi^2 P\, ay\, dy,$$

which, taken hetween the limits 0 and a, gives

$$(72) \int_0^a 4\pi^2 P\, ay\, dy = 2\pi^2 P a^3,$$ for the total effect in one revolution.

Let us now consider tractory conoidal plates. If the plates be of uniform hardness, the *actual* wear in a vertical direction, in this case as well as in the others, *and for the same reason*, must be uniform. It has already been shown that when the plates are at rest, the pressure in a vertical direction is uniform; and if this pressure he represented hy R, then its component in the direction of the normal is $R\frac{y}{a}$.

Now, when the upper plate revolves, the condition that the vertical wear shall he uniform, requires in this case as well as in the others that the product of the pressure in this direction into the distance passed over shall be constant, and hence if P represent the vertical pressure at the circumference, when the plates are in motion, and P′ the vertical pressure at any point whose ordinate is y, we shall have

$P : P' :: y : a$, or

(73) $P' = P\frac{a}{y}$, and the normal component of P′ will be

(74), $P'\frac{y}{a} = P$. The *normal* pressure then in *revolving* tractory conoidal plates of uniform hardness is coustant.

Since, now, from equation (32), $\frac{dS}{dy} = 2\pi a$, we have for the grinding effect, in a single revolution, the expression

(75) $\int 4\pi^2 P\, ay\, dy = 2\pi^2 P\, ay^2$, which, taken hetween the limits 0 and a, gives

(76) $\int_0^a 4\pi^2 P\, ay\, dy = 2\pi^2 P a^3$.

Since the normal pressure is constant and equals P, the product of the pressure into the distance passed over in a single revolution is $2\pi P y$, and it might seem at first, therefore, that the *wear* in the direction of the normal should be proportional to the ordinate. But upon reflection it will he seen that this cannot he the case herc, for the plates could not follow each other and remain in contact under this condition. The reason why they could not do so is, that if the actual normal wear *could* he proportional to the ordinate, the plates would wear into surfaces whose meridian curves would he hranches of the secondary curve I have already discussed, and the branch belonging to the upper (or convex) plate would have a much greater curvature (I call the *curvature* greater when the *radius of curvature* is less) than the one belonging to the lower (or concave) plate, so that the plates would then remain in contact only along the circumference of a circle at their top, while their lower portions would he separated hy a space increasing from the top downwards, and this is an impossible coudition of things to produce hy grinding.

It may at first seem strange that this should be so, while the product of the normal pressure into the distance passed over varies as the ordinate. But the simple fact of its seeming strange does not invalidate the reasoning nor the correctness of the result.

There is nothing about it more strange than there is in the properties of a curve and its asymptote, or in the simple fact that two points which are separated by a finite distance may continually approach each other in a right line, and yet never meet.

[Concluded next week.]

If I were the father of a family, all the members of it should learn music. Almost all children have naturally good ears and can catch tunes easily; and, strange to say, they are able to master the mysteries of time much better at an early age than they do later. Both girls and hoys should be taught to play upon the piano forte, which, altbongh it wants the power of melting one sound into another—that touching human effects which some instruments possess—is invaluahle as bringing almost every variety of music within reach, and permitting one, through arrangements and adaptations, to become acquainted, to a certain degree, with nearly all the thoughts of the greatest composers. At a more advanced age I would have them learn the grammar of music, thorough hass and harmony. The knowledge of the principles upon which the greatest men worked, and the examination of the manner in which they worked, would he a study of great interest, and could hut add to the admiration with which they might happen to he regarded. Those of my children who were great musical geniuses would only build the better for building upon such a foundation; and those who were not. having heen taught by their early studies what real greatness is, and hy the same process to comprehend what real littleness is also, in default of the charm of talent would probahly achieve that of modesty, and instead of becoming indifferent executants, would resign themselves to heing intelligent listeners—a race of which the world stand greatly in need.—*Horace Mann.*

[Written for the Mining and Scientific Press.]

Sodium in Excess on Rich Silver Ores.

BY G. KUSTEL, M. E.

It was stated already hy Mr. Beadwin (North Wales) "that the sodium amalgam will attack also base metals if added in excess, and reduce the hencficial effect of the mercury, which consists chiefly in the reduction of protoxide and sulphuret of mercury, keeping it thus from sickening and flouring. The mercury hecomes loaded with hase metals and its action on silver and gold is greatly reduced."

The attack of sodium on hase metals is a chemical one, arising from the endeavor to unite with the sulphur, oxygen, etc., comhiued with the base metals, whereby the latter are freed and amalgamated. Silver sulphurets are decomposed by the sodium readily; and this process is not disturhed hy the presence of hase metal sulphurets. Independent of all accessory circumstances, one pound of sodium would amalgamate about three and a half pounds of silver out of silver sulphuret. One ton of ore, assaying 200 ounces of silver, would require four pounds of sodium (at the cost of $5, London price,). Four pounds of sodium are equal to 100 pounds of hard sodium amalgam (ahout 77 cents per pound.)

To ascertain what part of the silver would he reduced hy a definite quntity of sodium in presence of water, iron and base metal sulphurets, and in what coudition the quicksilver is kept during the operation as to its collective power, an experiment was made in the Miner's Foundry, San Francisco, in one of Wheeler's small pans, with rich auriferous silver ores, (mostly from Comstock ore,) containing lead, zinc, copper, antimony and arsenic:

1. Six pounds of the ore were introduced into the pan, with so much water as to render tbe pulp thick enough to keep tbe mercury globules suspended. Two pounds of quicksilver were added immediately, and three pounds more coutaining six ounces of four per cent. sodium amalgam—that is, one ounce of sodium amalgam to each pound of ore were introduced in equal portions every fifteen minutes. No heat was applied. The mercury, on examination after each addition of sodium, remained uniformly parted in globules; the condition of the pulp did not permit a union. After a two hours run the ore was diluted, a small quantity of sodium amalgam added for tbe purpose of collecting the floured part of the mercury, and the pulp discharged; the dies were taken out, and the pan cleaned perfectly.

2. Six pounds of the same ore were charged as before, with the addition of five pounds of quicksilver—but all at once. The pulp was made hot by steam, and the amalgamation continued for two hours without any chemicals. After this time the charge was diluted and discharged.

The results of both experiments appeared in the following proportions:

No. 1, with sodium, yielded, per ton, 91.7 ounces of silver and 18.3 ounces of gold; total, 110.0 ounces.

No. 2, without sodium, yielded, per ton, 276.2 ounces of silver and 60.3 ounces of gold; total, 336.5 ounces.

The assay showed 2,030 onnces of silver and 87 ounces of gold.

The silver yielded of No. I is so much helow that of No. 2, that not only no decomposition of silver sulpburets did take place hy aid of the sodium, but the amalgamation seems to have been checked somehow by the influence of the sodium. It might he, however, tbat the silver, at the rate of 91.7 ounces per ton, is the direct result of the decomposition of tough silver sulphurets by the sodium, while the principal constituent of the ore consists of hrittle silver ore—which, although being decomposed by the sodium, yielded no amalgam.* Judging from the appearance of the quicksilver, the reason of its reduced amalgamating ability is more likely found in the instantly coated condition which it assumes in presence of iron from dies and shoes and finely divided sulphurets. This coating adheres like a skin, and prevents the amalgamation. When the action of the sodium is over, the mercury remains in a lethargic condition, showing less affinity for amalgamation than ordinary quicksilver, without heing loaded much with hase metals. The coating of the mercury, produced hy the action of sodium, may be also the reasou of the very low yield of gold; hut it must he remarked, that the free gold of this ore is not hright, like the quartz gold generally, but shows a mean looking, dull, hlackish appearance. It is also to he mentioned that there are twelve dies in the pan, leaving a space hetweeu each two which is filled up with ore. Particles of the coarser gold which slip into these spaces will also escape amalgamation; hut this inconvenience was alike for hoth experiments. The considerable quantity of gold particles extracted from the tailings of experiment No. 1, when tried in a small vessel, refused to yield to the (magnetic?) power of sodium mercury.

Notwithstanding the character of the gold, and the disadvantage of losing a large proportion of it (compared with tbe whole amount contained in the small charge of six pounds,) hetween the dies, the experiment without sodium gave about 70 per cent. of the assay. The reason of the small yield of 13 per cent. of silver in the second experimeut lies partly in the short time of two hours, hut chiefly in the nature of the ore which requires to he roasted.

The loss of quicksilver was so small in both experiments, that it could not he ascertained by means of the scale. This could not be expected otherwise, on account of the facility of collecting almost all the mercury when small quantities of ore are operated on, especially where there are no sulphates and chlorides present. But the appearance of the mercury in the experiment No. 1 was hy no means very flattering; it was difficult to collect the hlack flocks of coated quicksilver, which could he united into one mass hy the addition of sodium mercury, hut not separated from the sulphurets and iron in the pan. The quicksilver leaves the hlack coat like a skin hehind at slight motions. It has to be proven yet that the loss of mercury is not increased by the use of sodium on silver ore in iron pans, or on ores generally, if rich in sulphurets.

The advantage or disadvantage of sodium mercury can he demonstrated only by comparative working. A mere addition of sodium amalgam, and an unfounded helief that it "does well," is self-deceiving, and of no account.

In regard to the amalgamation of gold-hearing rock with sodium amalgam, Prof. Silliman made most important experiments. Five hundred and twenty-five pounds of poor quartz,—$14.89 per ton—were treated in a Freiherg pan (?) for one hour, with twenty pounds of quicksilver. The amalgamating result was $14.73. No ore of the same kind was treated in the above pan without sodium.

The second experiment, showing a comparative result, was made in a rotating cask. The comparison is less interesting than the actual result, using sodium quicksilver. The cask is known to be one of the least suitahle contrivances for gold extraction; but it answers perfectly for treatment of ores with sodium, as there is no friction required.

* See Scientific Press 1865, p. 306.

[Written for the Mining and Scientific Press.]

From El Dorado County.

[By our Traveling Correspondent.]

Messrs. Editors: Since you last heard from me, "notes hy the wayside" have accumulated to so great an extent that much must necessarily he omitted, which might otherwise have heen interesting to those unacquainted with this region, or to the miner who once gathered in one short season a golden harvest here, hut who now wanders in distant lands, lured onward hy the same bright hope, or excited by the same wild dream that animated him then.

But let none come hastily to the conclusion hecause fortunes are not made here in a day as formerly, to he squandered as soon, that the mines are exhausted. The more I see, and the further I travel, the deeper grows the conviction that we have scarcely yet reached the portals of Nature's storehouse. She has kindly strewn a few rare specimens upon the earth's surface—glittering in the sunlight—to remind us of immense treasures witbin, only to he hronght out hy patient, earnest toil, and judicious investment of capital, and hut for the wild and reckless speculation of the past, resulting so disastrously to all classes, still pressing with nightmare horrors on nearly all, and freezing up the channels in which capital ought to flow, we should now see these vast gold fields cultivated, these rich quartz lodes opened, traces and croppings of which, many of them giving every indication of heing highly metalliferous, and found belting this county from north to sonth for many miles hoth east and west of this place—and we should witness mil-

ons added to the wealth of the country, where ow is eked out a bare substance. A healthy eaction is needed. the first faint tints of its lawn begin to appear.

But now let as came down to some of the acts, which, though dry to many in detail, are one the less important. After passing through 'dot Hill, fifteen miles west of this, where here are some very good placer and hydraulic mines, simil r to those described in former letters, to say nothing of the quartz leads of that neighborhood, one of which at least has paid as high as $60 to the ton. Your "Prospector" was tempted to spend u day, some two miles west of Greenwood, partaking ol the hospitalities of the Penobscot House, breathing the pure mountain air, enjoying the delightful scenery, and rambling among the quartz ledges of the vicinity, of which there appear to be at least three. some 400 feet apart, running parallel from north to south, and passessing, unquestionably, u mineral character to u greater or less extent.

On these, several companies have made locations, and done some work, among which we may briefly notice

THE SHERIDAN,

situated on the middle lode. sufficient developments being made to lay bare a well-defined east and west wall, and prospecting well in gold, which is found in a species of decomposed quartz, not heretofore seen in my route, but afterwards in abundance in other places, of which I shall give some accouat if time and space permit.

THE FREEMAN,

Some distance further south, although not sufficiently opened to show the direction of the lode, exhibits the liveliest looking quartz in this neighborhood, so far as personal inspection went, and contains copper, native, and in form of sulphurets; sulphurets of iron and a little galena, fine-grained—considered a good indication of silver when found in rock known to be argentiferous, hut as no assay of the ore had been made so fur as learned, I cua say nothing definite as to its real value. It certuinly is worthy of a test, and will bo worked tbe enauing season.

THE AUNKER HILL,

Located on the western lode, a short distance south of the stage road, deserves a more extended notiec on aecount of the amoun' of labor performed on it, and the results tberefrom, some $35,000, having been expeaded in the erection of buildings and hoisting apparatus, and in sinking shalts and running drifts, oaly such portions needing description as tend to the elucidation of the subject, the facts given being in part taken from observation above ground, and gleaned as to the interior from statements of the former superintendent aad other gentlemea of integrity well acquaiated with its works.

One of the three shafts of this company was sunk fifty feet—following the lode—variously represented from six to fifteen feet in width, out of which shaft fifteen tons of 18 per cent. copper ore was taken and shipped. This shaft was then lowered fifty-five feet deeper, making a total depth of 105 feet, and judging from the pitch thut the ledge lay east, a cross-cut was made at the 75-foot level or thirty feet from the bottom of the shaft, in that direction fifteea feet, striking the lode, which at tbat point is said to be from ten to twelve feet wide, with eighteen inches of fine pay ore, and sulphurets throughout the ledge. A drift was extended north sixty-five fect along the vein oa 50-foot level, the ore found being represented as of poor quality. Another was rua south seventy-five fcet, the ore in the judgment of at least two of the parties above alluded to, being similar in character und value to that taken from the shaft, and appearing to improve as the drift was extended south, the pay vein beiug near four feet wide. This company are not now at work; their whim, large and substantial as it seems to be, aot being equal to the emergency, tbey iatead securing an engine in a short time, and will resume operatioas, hoping soon to place it among the dividend-payiag claims of tbe country. There is reason to helieve that they will not he disappointed in their expectatioas, in view of the richness of the ore to be seea at the mine, and of the fact that they have already shipped some twenty-fivo tons, averaging about $65 per ton, even at the low rates then ruling, and bave wood and water in abundance at hand.

THE GREENWOOD AND ITS LEDGES.

A large quartz ledge may be distinctly seen croppiag out in various places oa tbe hill immediately west of this well-preserved mining village, lying hid in a deep mountain pass, through which flows a beautiful little stream with sufficient water for mill nnd mining purposes. Two or three companies arc at work ou this lode.

THE EUREKA GOLO AND SILVER MINING COMPANY.

This claim, as I learned from Mr. R. Powning the Superintendent, from whom, also, other facts relating to it, were received, is now owned by so.ne San Francisco capitalists, who intend forthwith to erect a 20-stamp mill. The company first sunk a shaft on the lode to the depth of forty-five feet, finding it six feet in width, and taking ore therefrom which yielded $10 per ton in gold, and $9.50 in silver. Being compelled to abandon this point, in consequence af encountering too much water, they commenced u tunnel at the foot of the hill, and drove it west from the village 160 feet, and struck the lode, proving it here of the same width as above. No rock has been worked from this portion, but it assays $17.50 in gold and $7.50 silver. They extended the tunnel from this point eighty feet in the same direction, and ran through the lode eight feet wide. One ton of the rock from the vein in this place, worked in San Francisco $14 gold. $12 silver. They are now drifting north and south on the vein from the point last mentioned, with four men oa each shift, one carmnn and one assorting the ore, and taking out from fifteen to twenty tons every twenty-four hours.

Adjoining this claim on the north, a company with six men employed, known here as the French company, are doing well, and have laid bare tbe same lode, which showed rock of a blnish gray cast, aixed largely with sulphurets of iron, if my memory can be trusted. They have frequently taken out from $4,000 to $5,000 per week, not from this lode, but from the hill-side above aad from some little quartz veias, varying from half an inch to three inches, aad ia places somewhat decomposed, some of them being clearly traceable as feeders or spare to the large lode, where they seem to be cut off, the quartz in the two having no resemblance whatever, so far as I could discover from a cursory examination. Large as the above fi.ures are, owing to the expense attendant in working the mine, and their "modus operandi," they are aot getting rock as fast as they might. More gold is lost than saved in many portions of this couaty, for waat of proper appliances, whicb nothiag but skill aad capital can procure.

As I have as yet said aothing in regard to Spanish dry diggings, nnd have notes enough witb reference to the minee about Georgetown for another letter, you will soon bear from me agaia. Yours faithfully,

PROSPECTOR.

Georgetown, El Dorado co., March 19, 1866.

[Written for the Mining and Scientific Press.]

Ths Cause of Failure in Mining Enterprises.

MESSRS. EDITORS:—After acarly three years residence ia this portioa of the land of sage brush and silver, and much close observation as to the causes of the apparent failure of miaing eaterprises, it is highly gratifying to observe that at last parties interested in the the varicus leads, with which our sectioa abounds, are commencing "right foot foremost." Hitherto, the process has generally beea in this wise: Parties discover a lead, or rather what has the appearaace of a lead of mineral-bearing quartz. A few assays are made, of course from tbc choicest selection of rock. Aa agent is dispatched to Saa Fraacisco to iaduce moaeyed men to become interested, and to raise a sufficient amount of funds to develop tbe mine. A so-called superiatendent is sent up, probably a good honest maa, and may be "tbe rigbt man in the right place;" hut as nine-tenths of these are totally ignorant of the first principles of either geology, miaeralogy, or metallurgy, it is very evideat that this time the "right place" is seldom fouad. Without evea a prelimiaary survey being made, or any attempt to ascertain the dip of tbe lead, whetber it is a true vein, or simply n displacemeat, the work of "developing" goes on. Perhaps a "boaanza" is struck, and then the next thiag iu order is a mill. A mill must be had—it is absolutely necessary—and without waiting to further investigate or eveu to fiad out the character of tbe lead as to permaneney, etc., estimates are forthwith made for its erectiea. The writer of this bas known iastauces, oa Owens River, and throughout that section of country, of heavy and expensive machinery beiag purchased, shipped aod erected at eaormous expense, before the company had ten tons of mineral-bearing rock ia sight. The estimates nre always too small; assessment after assessment is levied before the mill is finished; the money has given out; the few tons of rock found have been crushed, and, if in great good luck, the company declares a small dividend, to be followed almost immediately afterwards by another assessmeat. Superintendent becomes anxious; he has by this time picked np a few scientific phrases, and has actually made himself believe that he is a practical miner. It is of course neeessury for him to sustain that reputation. He "gouges" round in bis mine, finds a few tons of fair ore, works it, and perhaps pays the expenses of getting it out. And so the work goes on. Not a dollar is spent in real development. Tbe money which should be expended in tunneling, driftiag, and in a thorough prospecting of the vein, goes for stopeing, nnd ruuning the mill. This lasts hut a ehort time, and is aaturally followed by the stopping of the entire work, the disappointment of the stockholders, and the so oftea repeated expression thut "eilver miaing is all humbug."

How often has the writer, ia answer to his questioa, as to the cause of such a mill ceasing operatioas, been answered, "The money is all spent; but (that invariable 'but') it the company oaly had a few thousand dollars more to thoroughly open such or such a vein, dividends would soon follow." This, ia nine cases out of tea, is the fault of the stockholders. Wbea they incorporate or invest in a miae, they do eo expecting that it will almost immediately become a dividend-payiag concern, and ualess the superintendeat orders a mill within three months after commeacing operations, they are anxious to sell out. The experience of those interested ia Recse River, will fully sustain the writer ia these statements.

Of tbe mineral wealth of that section there caaaot be the sbadow of a doubt; but when its rich veins were only partially prospected, came the usual demaand for mills. These were erected at an eaormous expense, and then the discovery was made tbat there was aot one toa of mineral, eitber out or ia sight, where a hundred were aecessary for paying operations. "Montgomery District" is another example. Tbere three mills and an arastra were erected, aad whea completed, in the wbole district tbere had not been fifty tons of ore taken from tbe miaes. Yet the district ie undoubtedly rich, containiag, as it does, such lodes as tbe Osceola, Mountain Queea, Bowmaa aad Mitchell, aad others equully as good. Ia aaother year, when men or companies pursue miaing as a business, regular and legitimate, and aot as a speculation. it will rank amongst tbe foremost on the Pacific slope. The same can be said of Lone Pine and Keys district. Though many of the leads of both are witbout doubt very rich, and have beca discovered aad prospected for the past three years; yet, in neither have there been twenty tons of ore taken from the vein or ia sight.

Ia tbe latter district the Consort compaay purcbased a 10-stamp mill, pans, amalgamators, and all the necessary machinery; or rather, it was purchased for the company by some parties in New York, oa the representations that an immease amount of ore had beea taken out, or could be immediately procured for crushing. On the New York ageat visiting the district for the purpose of examiniug into matters, what was the coasequence? There were aot twenty tons of rock out—not a sufficiency in sigbt to warraat the erection of the mill, and they permitted the machiaery to he sold a few weeks since for freight. It is these misrepreseatations (to use a mild expression) which injure tbe miaes, and in many cases preveat the iavestmeat of the capital necessary for the workiag of the eame.

Is it not then far better to first thoroughly develop a lead before talking about working tbe rock from the firet bonanza struck? *The safest place for the pay ore to be is in the mine, until a sufficiency is in sight to run a mill for at least one year;* let thie course always be adopted, aad together with the advice of Gen. Rosecrans, "that no reduction works should he erected oa a single lode however promising," aad mining will become a legitimate busiuess, and not a mere speculation.

Many may refer to the Comstock lode ne an answer to tbese suggestions. Is there any one at all acquainted with mining who for a moment doubts that the Comstock veia has been most materially injured by the system of gouging carried on for the purpose of declaring most unaatural divideads? It will take years and an immense amount of money to place these mines in a proper working conditiau. From these remarks the writer excludes the Gould & Curry, which, under the supervision of its present superintendent, Mr. Lauis Jauin, (a gentleman who understands the "working," not the "speculative" branch of miniag,) will, be ventures to predict, become in two years time or even less, one af tbe most vnluable aines ia tbe world.

The writer can in no way give a better illustration of his idea of mining thaa the following very homely one: Suppose a company having half a dozen so-called lenils, with a cash capital of $100,000 paid in—they expend this money carefully and judiciously under the management of a MINER (not a lawyer, physician, blacksmith, or carpenter), in the thorough opening, prospecting, and developing their claims—when the veins are struck, when it ie fully ascertained and shown that the mines are good, and there is no louger a doubt as to their wealth, *that* company can procure all the machinery aud mills it requires. Let another, with the same amount of funds, only partially prospect a single lead, and then consume the balance of their money ia erecting a mill, where will *they* find means to go on developing and prospecting their single claim? In other words, and in common parlance, have they aot commenced "wrong end foremost?"

Mining here (in the Blind Spring district) is now being carried on ia the right, and eystematic manner, particularly by the Sierra Blanea and Cornucopia compaoies. Under tbe management of the superiateadent of tbese companies, Dr. Partz, the leads are being thoroughly developed. In both of tbe tunnele and drift of the Elmira rich bonanzas have been struck, and the character of this claim fully nscertained. In the Crocker enough hae been done to guarantee the permanency of the lead, and the work is still going on. The Jupiter, Vulcan, and other leads of the company are being constantly worked, and the indications show every prospect of their equaliag either of the above. In the Cornucopia, after going through the iron, a remarkably rich vein was struck; the orc it is estimated will yield at lenst $1,000 per ton, and several evea richer deposits have been found. But pursuing tbe proper policy ia mining, the superinteadent only takes out such rock ae is aaturally necessary to carry on the developmeat. Every lead must be thoroughly prospected, and a sufficiency of ore must be in sight, before putting up expensive reducing works, to staad idle half the year; no gouging the miaes out, but let the veins be properly opened.

If all the superiatendents would adopt this course, then mining would occupy its proper position, become a business with large, regular, and aever-failing profits, instead of ae now, a mere speculation—this moath a dividead of $50, and the next an aesessment of $100.

Several other parties are aow adopting the same system, and the Humming Bird company (Messrs. Hightoner & Co.) are thoroughly developiag their lead. This is undoubtedly very rich, hut, with a proper feeling of cautiou, they want to see it "sure" before erecting machinery. The Diana is still taking out immensely rich rock, and with their little 4-stamp mill turn out their usual yield of about sixteen pounds of bullion per day.

Tbe owners of this mill dcserve success—both practical, hard-working mechaaics. Like the rest of tbe resideats of this side of the slope, they have experienced all the ups and downs (particularly the "downs") of the past three years, but never losing faitb, they still persevered. Their little mill is (with the exception of the castings) eatirely of their own handiwork, and they are now reaping a rich reward for their untiring energy. The writer only echoes the wish of the entire community when he repeats, "success to Williams & Wicklaad." It is a pity we had not more men of tbeir stamp.

Every thing looks prosperous here, and there is not a man ia this section of the country out of employment who desires work.

Partzwick, Mono county, Jaa. 21, 1866.

SLUICE FOR QUARTZ MILLS.—A patent has been issued to Hugh Logan, of Washoe City, Nevada, for a new sluice for quartz mills. The iaveator says:

I claim the grooved false bottoms, m, in the compartments, c, of the sections of the sluice, in combination with the longitudinal partitions, b, aad pockets, d, constructed and operating substaatially as and for the purpose set forth.

2d. The triangular abutments, e f, in combination with the compartments, c d, of the sluice, substaatially as and for the purpose described.

3d. The yokes, g, with suitable wedges or keys, in combination with the loagitndinal partitions, b, of the sluice, constructed and operating substaatially as aad for the purpose specified.

HOWEVER active a goose's wiags may be in life, tbey become stationary afterward.

SALES OF THE WEEK
BY THE S. F. STOCK & EXCHANGE BOARD.

Saturday, March 24.

1044 shs Ophir at 735@752½ per foot.
36 shs Ophir at 750@740 per share, s 30.
12 shs Ophir at 790 per foot, b 20.
12 shs Ophir at 770 per foot, s 3.
12 shs Ophir at 770 per foot, s 5.
2 shs Savage at 1025 per foot.
2 shs Savage at 1080 per foot, b 30.
1 sh Savage at 1030 per foot, s 30.
9 shs Chollar-Potosi at 400@402½ per ft. s 3.
1 sh Chollar-Potosi at 412 per foot, b 30.
80 shs Daney at 14 per foot.
11 shs Yellow Jacket at 800@760 per foot.
8 shs Yellow Jacket at 760@765 per ft, s 30.
2 shs Yellow Jacket at 765 per foot, s 3.
1 sh Yellow Jacket at 775 per foot, b 10.
12 shs Crown Point at 1425@1420 per foot.
8 shs Crown Point at 1420 per foot, b 5.
4 shs Hale & Norcross at 1040 per foot, h 30.
6 shs Hale & Norcross at 1010@990 per ft.
2 shs Hale & Norcross at 1000 per ft, h 5.
2 shs Hale & Norcross at 990 per foot. s 3.
12 shs Alpha, G H. at 400 per foot.
6 shs Belcher at 315@320 per foot
2 shs Belcher at 317½ per foot, s 10.
25 shs Imperial at 140 per share, h 30.
36 shs Imperial at 137@135 per share.
5 shs Imperial at 140 per share, b 30.
10 shs Imperial at 135 per share, s 3.
1 shs Overman at 68 per foot, s 3.
63 shs Overman at 69@67 per foot.
10 shs Overman at 65 per foot, s 30.
20 shs Overman at 71 per share, h 30.
103 shs Exchequer at 8½@8¾ par share.
70 shs Exchequer at 8¼ per share, b 3.
93 shs Confidence at 50½@48½ per share.
10 shs Confidence at 48 per share, s 5.
10 shs Confidence at 48@49 per sh, s 10.
10 shs Confidence at 53@52¼ per share, h 30.
56 shs Bullion at 125@115 per share.
9 shs Bullion at 125 per share, h 30.
15 shs Bullion at 120 per share, b 10.
40 shs Pacific Insurance at 168 per cent.
$16,000 Legal Tender Notes at 78¾ per cent.
Amount of sales.....$113,648 00

Monday, March 26.

4 shs Gould & Curry at 1020 per foot, s 30.
20 shs Gould & Curry at 1045@1050 per foot.
5 shs Savage at 1060@1080 per foot.
1 sh Savage at 1050 per foot, s 30.
22 shs Chollar-Potosi at 402½@407½ per ft.
20 shs Daney at 14 per foot.
276 shs Ophir at 800@770 per foot.
24 shs Ophir at 790@770 per foot, b 8.
12 shs Ophir at 770 per foot, s 3.
24 shs Ophir at 770 per foot, s 30.
2 shs Yellow Jacket at 775 per foot, b 30.
2 shs Yellow Jacket at 765 per foot, s 30.
14 shs Yellow Jacket at 770@780 per ft.
1 sh Yellow Jacket at 775 per foot, s 3.
4 shs Crown Point at 1450 per foot b 3.
12 shs Crown Point at 1415 per foot.
17 shs Overman at 65@62½ per foot.
67 shs Imperial at 135@130 per share.
15 shs Imperial at 125 per share, s 30.
10 shs Imperial at 130 per share, s 3.
5 shs Imperial at 125 per share s 20.
28 shs Confidence at 52@50 per share.
10 shs Confidence at 50 per share, s 10.
2 shs Empire M & M Co. at 215 per sh.
50 shs Bullion at 135@132½ per share.
10 shs Bullion at 140 per share, b 30.
140 shs Exchequer at 9@9½ per shara.
55 shs Exchequer at 9¼ per share, b 3.
25 shs N B & Mission R. R. at 53 per ct.

AFTERNOON SESSION.

12 shs Chollar-Potosi at 410@422½ per foot.
198 shs Ophir at 780@760 per foot.
36 shs Ophir at 750@760 per foot, s 30.
24 shs Ophir at 770 per foot, b 3.
4 shs Crown Point at 1450 per foot.
4 shs Yellow Jacket at 800@785 per ft, b 80.
15 shs Yellow Jacket at 790@755 per ft.
1 sh Yellow Jacket at 760 per foot, s 30.
3 shs Yellow Jacket at 770 per foot, b 10.
3 shs Yellow Jacket at 760 per foot, s 3.
1 sh Alpha at 120 per foot.
1 sh Savage at 1100 per foot, b 30.
6 shs Savage at 1075@1055 per foot.
2 shs Savage at 1075 per foot, b 20.
23 shs Imperial at 130@127 per shara.
5 shs Imperial at 125 per share, s 30.
35 shs Bullion at 130@125 per share.
20 shs Bullion at 130@132½ per share, b 30.
5 shs Bullion at 125 per share, b 3.
220 shs Exchequer at 9¼@10¾ per share.
35 shs Confidence at 51½@50 per share.
5 shs Confidence at 53 per share, b 30.
1 sh Empire M & M Co. at 217½ per sh.
5 shs Overman at 65 per foot, b 30.
5 shs Overman at 60 per foot, s 30.
10 shs Overman at 58 per foot, h 3.
100 shs N B & Mission R R at 55 per cent.
10 shs Union Insurance at 115 per cent.
Amount of sales.....$200,942 00

Tuesday, March 27.

240 shs Ophir at 790@750 per foot.
12 shs Ophir at 775 per foot, b 3.
48 shs Ophir at 765 per foot, s 3.
8 shs Savage at 1050@1060 per foot.
8 shs Chollar-Potosi at 422½@417 per ft.
15 shs Yellow Jacket at 765@785 par ft.
7 shs Yellow Jacket at 755@775 per ft, s 30
2 shs Yellow Jacket at 775 per ft, s 3.
5 shs Belcher at 310@320 per foot.
9 shs Belcher at 320 per foot, b 3.
2 shs Belcher at 320 per foot, b 5.
5 shs Belcher at 320 per foot, s 3.
8 shs Crown Point at 1450 per foot, s 3.
16 shs Crown Point at 1450@1445 par foot.
8 shs Alpha, G H, at 435 per foot.
4 shs Hale & Norcross at 960@965 per foot.
2 shs Alpha, G H, at 960 per foot, s 5.
8 shs Empire M & M Co. at 220 per sh.
40 shs Imperial at 128@125 per share.
5 shs Imperial at 127 per shara, b 5.
5 shs Imperial at 126 per share, s 3.
20 shs Baltimore American at 11 pr ft.
45 shs Overman at 56@52 per ft.
5 shs Overman at 55 per foot, s 30.
100 shs Overman at 60@55 per foot, b 30.
255 shs Exchequer at 12@12¾ per share, s 3.
135 shs Exchequer at 12@12¾ per share.
20 shs Exchequar, at 12¾ per share, a 5,
4 shs Alpha, G. H., at 420 per foot. s 3.
4 shs Alpha, G. H., at 420 per foot, s 20.
160 shs Exchequer at 12@10 per share.
115 shs Exchequer at 10¾@11 per share, b 3.
100 shs Exchequer at 10 per share, s 30.
110 shs Exchequer at 11 per share.
50 shs Baltimore American at 11 p sh, s 10.
109 shs Baltimore American, at 11, s 5.
6 shs Empire M & M Co, 215@220 per sh.
10 shs Bullion at 115 per share.
2 shs Imperial at 126 per share.
10 shs Sierra Nevada at 9½ per sh.
17 shs Confidence at 47½@45 per share.
2 shs Confidence at 45, s 30.
01 shs Overman at 55 per share, b 30.
5 shs Overman at 52 per share.
Amount of sales.....$219,336 00

Wednesday, March 28.

132 shs Ophir at 760@725 per foot.
36 shs Ophir at 755@750 per foot, s 5.
95 shs Ophir at 750@730 per foot, b 3.
132 shs Ophir at 720@730 per foot, s 3.
12 shs Chollar-Potosi at 420@425 par foot.
42 shs Daney at 15 per foot, b 30.
10 shs Overman at 58 per foot, b 30.
45 shs Bullion at 122½@115 per share.
35 shs Bullion at 120 per share, b 3
25 shs Bullion at 122½@118 per share, h 30.
5 shs Bullion at 115 per share, b 10.
26 shs Confidence at 50@48 per share.
30 shs Sierra Nevada at 8¼ per share.
20 shs Sierra Nevada at 9 per share, b 10.
$10,000 Legal Tender Notes at 80¼@80¼c.

AFTERNOON SESSION.

2 shs Chollar-Potosi at 415 per foot.
1 sh Chollar-Potosi at 420 per foot, b 15.
5 shs Chollar-Potosi at 425 per foot, b 20.
5 shs Cnollar-Potosi at 419 per foot, s 30.
2 shs Savage at 1070 per foot, b 5.
1 sh Savage at 1080 per foot, b 30.
1 sh Belcher at 312½ per foot, s 3.
3 shs Belcher at 310 per foot.
3 shs Belcher at 305 per foot, b 5.
24 shs Ophir at 780 per foot, h 30.
48 shs Ophir at 760 per foot.
6 shs Yellow Jacket at 775@795 per ft, s 30.
7 shs Yellow Jacket at 790@805 per foot.
4 shs Yellow Jacket at 800 per foot, s 3.
2 shs Yellow Jacket at 800 per foot, s 10.
2 shs Hale & Norcross at 1000 per ft, b 20.
6 shs Hala & Norcross at 955@950 per ft.
8 shs Alpha, O. H. at 430 per foot.
5 shs Overman at 57 per foot.
5 shs Overman at 55 per ft, s 30.
60 shs Sierra Nevada at 9 per share.
10 shs Exchequer at 10¾@8¾ per share.
75 shs Exchequer at 9¼ per share, b 3.
54 shs Confidence at 41@42 per share.
10 shs Confidence at 41 per share, s 30.
65 shs Confidence at 41 per share, s 3.
6 shs Confidence at 42 per share, b 10.
10 shs Bullion at 120 per share.
20 shs Union Insurance at 114 per cent.
$15,000 Legal Tender Notes at 78@78½, s 30.

AFTERNOON SESSION.

24 shs Ophir at 740 per foot.
120 shs Ophir at 730 per foot.
144 shs Ophir at 725@722½ per foot.
60 shs Ophir at 725 per foot, b s.
7 shs Ophir at 730 per foot, b 5.
7 shs Belcher at 330 per foot, b 3.
25 shs Belcher at 345@350 per foot.
1 sh Belcher at 360 per foot, h 30.
2 shs Belcher at 347½ per foot.
3 shs Belcher at 350 per foot, b 5.
2 shs Belcher at 350 per foot, s 3.
9 shs Yellow Jacket at 865@875 per foot.
6 shs Yellow Jacket at 870@867½ per ft
4 shs Yellow Jacket at 865 per foot, s 3.
46 shs Belcher at 300@342½ per foot.
5 shs Belcher at 325@340 per foot, s 3.
16 shs Belcher at 327½@340 per foot, b 3.
3 shs Belcher at 330 per foot, b 5.
3 shs Belcher at 735 per foot, s 30.
1 sh Belcher at 350 per foot, b 30.
3 shs Belcher at 340 per foot, s 5.
13 shs Savage at 1072@1085 per foot.
1 sh Savage at 1100 per foot, b 30.
1 sh Savage at 1075 per foot, s 23.
1 sh Savage at 1085@1090 per foot, s 3.
1 sh Savage at 1100 per foot, b 10.
4 shs Alpha, G. H., at 410 per foot.
2 shs Yellow Jacket at 815 per foot, s 15.
2 shs Yellow Jacket at 805@875 per foot, s 3
8 shs Yellow Jacket at 865 per foot.
3 shs Yellow Jacket at 860 per foot, s 30.
8 shs Crown Point at 1380@1375 per foot.
8 shs Hale & Norcross at 935 per foot.
2 shs Hale & Norcross at 930 per ft, s 3.
2 shs Hale & Norcross at 920 per sh, s 30.
1 sh Empire M & M Co at 207½ per share.
16 shs Imperial at 126@130 per share.
5 shs Imperial at 127 per share, s 3.
5 shs Imperial at 129 per share, s 30.
1 sh Yellow Jacket at 850 per toot, s 20.
7 shs Yellow Jacket at 850@862½ per foot.
2 shs Yellow Jacket at 850@855 per ft, s 30.
1 sh Yellow Jacket at 860 per foot, s 10.
7 shs Crown Point at 1400 per foot.
103 shs Baltimore American at 10@11 pr sh.
3 shs Empire M & M Co. at 210 pr sh.
50 shs Exchequer at 9¾ per share.
13 shs Exchequer at 9½@9¾ per share, s 3.
5 shs Imperial at 132½ per share.
5 shs Imperial at 131 per share.
5 shs Imperial at 131 per share, s 3.
5 shs Confidence at 44 per share, b 30.
30 shs Confidence at 42 per share.
10 shs Confidence at 41 per share, s 30.
Amount of sales.....$223,699 00

Thursday, March 29.

276 shs Ophir at 750@740 per foot.
36 shs Ophir at 750@740 per foot, h 3.
120 shs Ophir at 747½@740 per foot, s 3.
48 shs Ophir at 760@755 per foot, b 30.
6 shs Savage at 1080@1075 per foot.
40 shs Daney at 16 per foot, b 10.
60 shs Daney at 16 per foot.
7 shs Yellow Jacket at 875@865 per foot.
1 sh Yellow Jacket at 860 per foot, s 20.
4 shs Crown Point at 1400 per foot.
8 shs Crown Point at 1432½@1400 pr ft, s 3
4 shs Crown Point at 1410 per foot, b 10.
31 shs Belcher at 360@382½ per foot.
7 shs Belcher at 380@370 per foot, s 3.
3 shs Belcher at 380 per foot, b 3.
7 shs Belcher at 395@380 per foot, b 30.
2 shs Belcher at 375 per foot, s 30.
8 shs Alpha, G. H. at 410 per foot.
1 sh Empire M & M Co. at 210 per share.
21 shs Imperial at 132½@139 per share
20 shs Imperial at 137@137½ per share, s 3.
5 shs Imperial at 142 per share, b 30.
5 shs Imperial at 135 per share, s 30.
32 shs Overman at 60@57½ per ft.
30 shs Exchequer at 9¼ per share, s 3.
110 shs Exchequer at 10½ per share, b 30.
50 shs Exchequer 9¾ per share.
35 shs Sierra Nevada at 8¾@8¾ per share.
5 shs Bullion at 112½ per share.
5 shs Confidence at 40 per share, s 3.
15 shs Confidence at 46 per share, b 30.
35 shs Confidence at 41 per share
50 shs N B & Mission R R Co, at 52½ per ct.
10 shs Union Insurance Co, at 116 pr ct, b 5

AFTERNOON SESSION.

144 shs Ophir at 740@745 per foot.
24 shs Ophir at 745 per foot, b 3.
12 shs Ophir at 740 per foot, s 20.
12 shs Ophir at 745 per foot. b 5.
2 shs Hale & Norcross at 942½ per foot.
28 shs Crown Point at 1405@1410 per foot.
4 shs Crown Point at 1405 per foot, s 5.
16 shs Crown Point at 1420 per ft, b 10.
9 shs Yellow Jacket at 855@860 per foot.
3 shs Savage at 1080@1075 per foot.
1 sh Savage at 1075 per foot, s 3.
1 sh Chollar-Potosi at 417½ per foot.
2 shs Chollar-Potosi at 420 per foot, b 5.
4 shs Chollar-Potosi at 417½ per foot, h 2.
7 shs Belcher at 340 per foot, s 30.
31 shs Belcher at 345@350 per foot.
2 shs Belcher at 350 per foot, b 3.
49 shs Confidence at 40@41½ per share.
8 shs Confidence at 40@41 per share, s 3.
5 shs Confidence at 39 per share, s 30.
41 shs Confidence at 40@41 per sh, s 3.
10 shs Confidence at 42@42½ per share.
7 shs Bullion at 112½ per share.
21 shs Overman at 60@59 per sh.
36 shs Imperial at 140@143 per share.
10 shs Imperial at 139 per shara, s 30.
10 shs Imperial at 140 per share, s 3.
10 shs Sierra Nevada at 8¾ per share.
2 shs Cal Steam Nav Co at 57½ per ct.
Amount of sales.....$198,842 00

Friday, March 30.

156 shs Ophir at 745@700 per foot.
488 shs Ophir at 685@690 per foot.
192 shs Ophir at 692½@690 per foot.
52 shs Imperial at 140@142 per share.
42 shs Imperial at 140@141 per share.
11 shs Yellow Jacket at 850@815, pr sh.
4 shs Savage at 1075 per foot
16 shs Crown Point at 1410@1400 per foot.
6 shs Hale & Norcross at 940@942 per ft.
16 shs Hale & Norcross at 960@965. b 20.
shs Hale & Norcross at 930 per foot, s 30
2 shs Hale & Norcross at 925 per foot.
52 shs Confidence at 42 per share
14 shs Chollar-Potosi at at 410@397½ per ft.
14 shs Chollar-Potosi at 415@395 pr ft, h 30.
4 shs Alpha, G H, at 410 per foot.
2 shs Empire Mill & M. Co. at 215 per sh.
65 shs Overman at 57@57½ per sh.
78 shs Belcher at 325@340 per foot.
85 shs Exchequer at 10@9¾ per share.
50 shs Sierra Nevada at 8¾ per share.
25 shs Bullion at 115@112½ per share.
Amount of sales.....$164,190 00

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, March 31, 1866.

The money market is very easy, and discounts are readily obtained in bank at 1@1¼ ₱ cent. per month. Stock collateral loans have been negotiated this week upon rather more favorable terms to the borrower, and considerable available capital is likely to seek these channels as soon as the market assumes a little more steadiness, and confidence is measurably re-established. It is confidently expected in financial circles that interest on money will rule at low figures the present year, and that many important enterprises will be provided with ample means, and pushed with vigor. A year of active development on this coast is very generally anticipated, and a largely-increased production of the precious metals is also looked for.

The receipts of treasure from the mining districts during the week were $800,000, and the aggregate for the month of March, about $3,800,000.

Bullion has met with no special inquiry of late, owing in part to the low rates prevailing in the East. For the steamer of yesterday Gold Bars were sold at about 840, and Silver ruled at 1@1½ ₱ cent. premium.

Currency Bills on the Atlantic were offered at 23 ₱ cent. premium on Gold. Telegraphic transfers were made at 2¾ ₱ cent. premium, and Sight Drafts, payable in coin, sold at 1¾ ₱ cent. premium. Sterling is quotable at 48½@48¾d for best Bankers' Bills; Commercial do at 49½d.

Legal Tender Notes were in active request early in the week, and considerable sales were made at 77½@80¼; closing at about 77½ bid. Our latest telegraphic advices from the East quote Gold at 131½ on the 29th.

The Share market exhibited a fair degree of activity this week, and nearly every stock on the list has been well maintained. Receipts of Bullion from prominent claims continue unabated, and the average yield for the current month will exceed that of any like period since October last. A restoration of something like former confidence must and will ensue at no distant period, if the better class of mines are enabled to pay regular dividends to stockholders (which now seems probable), and an honest and economical administration of their affairs is adhered to.

Crown Point rose from $1,420 to 1,450, receded to $1,375, rallied to $1,400. and sold yesterday at $1,410@1,400. During the week ending March 24th, 542 tons of ore were extracted from the mine. Considerable ore is now being taken from the extreme west stratum, and the appearance of the incline now down 16 feet from the 300-feet level, is said to be very favorable for a large body of ore at that point. In running south on the 3d level, 220 feet south of the north line, the character and quantity of ore met with has materially improved. Receipts of Bullion from the 1st to 24th instant, amounted to $105,000, and 21½ tons of first-class ore have been reduced this month, yielding $648.46 per ton. The company's next dividend will probably be increased to $75 per foot.

Savage is in rather better favor, and some 50 feet were sold, advancing from $1,025 to $1,100, receding to $1,050, rallying to $1,080, and then dealt in at $1,075@1,060.

The product of the mine recently has been about 50 tons of ore per day. The new or 6th level will be opened next week. The entire indebtedness of the company at the close of this month will probably amount to $25,000, including the installments due upon the Minnesota mill.

Gould & Curry has been inactive and dull, with small sales at $1,020@1,050. The yield of the mine for the month of March, will exceed $160,000, and a dividend of $75 per foot is talked of on the 5th proximo. There is nothing especially new to report save that the ores reduced lately show some improvement.

Yellow Jacket has continued to be well maintained, and considerable sales were made, receding from $800 to $775, rallying to $875, dropping to $860, and changing hands yesterday at $850@$800. The newly-discovered deposit met with in the west drift from the south shaft, lower level, is regarded with decided favor, and is likely to prove a valuable addition to the resources of the mine. The prospect is fair, it is said, for a large body of ore, of better quality than hitherto found in other portions of the claim.

Ophir has been actively dealt in, and some 350 feet were sold, declining from $785 to $725, advancing to $750, and then selling at $695@$735. Latest advices are flattering as to the present appearance of the vein of ore recently met with in the ninth gallery, especially so in breasting out to the north and on the fourth floor. The south drift is now within some fifteen feet of the Central line, but the indications thus far are not so promising in that direction. In addition to the Company's Reduction Works, and the River Mill, the Pioneer, Merrimac, Central, and Lands Mills, are now at work reducing ores, mainly from the lower level. A shipment of $20,000 was made this week.

Chollar-Potosi was less active, and small sales were made, advancing from $400 to $425, receding to $417½, and selling yesterday at $410@$390 The Piute station presents about the same appearance, and is turning out some good ore. The upper stope in the Bajazette Ground continues to look well, and to produce good ore. In the stope near head of incline, the body of ore does not look as well, it is said, as formerly. Station sixty feet below Potosi tunnel still looks promising, and in other portions of the mine there is no material change to report. Drift to the ledge from the new shaft is now in some two hundred and fifteen feet, and progressing at the rate of about two feet per day. During the week ending March 24th, 1,251¼ tons of ore were delivered to custom mills.

Belcher has attracted much more attention, and nearly 300 feet were dealt in, advancing from $305 to $382½, receding to $340, and then selling at $330@345. Favorable indications have been met with recently, but so far as we can learn, nothing very tangible is to be seen as yet.

Alpha has been inactive and dull, with a range of $435@400, closing at $410.

Empire Mill and Mining rose from $215 to $220, receded to $210, and closed at about $220. The new shaft is in working order again, the damage done by the late fire having been fully repaired during the past three weeks. Since the 10th inst., the Company's Mill has been employed in working surface ores and tailings, the receipts from which have been about sufficient to meet current and extraordinary expenses.

Imperial declined from $137 to $125—seller 30, rallied to $143, and sold yesterday at $141@$140. Drifting is vigorously under way from the old shaft, at a depth of 700 feet, and a new level will probably be opened in thirty days hence. The Imperial-Empire shaft has attained a depth of 220 feet.

Bullion rose from $115 to $140—buyer 30, declined to $112½, and closed at $112½@$113.

Overman fell from $69 to $52, rose to 60, and then sold at $52@$53.

Confidence dropped from $50 to $40, rallied to $42, and closed at $42.

Exchequer was largely dealt in within a range of $12½@$9, closing at $10¼.

Daney was sold at $14@$16. Baltimore American sold at $10@$11. Sierra Nevada sold at $9½@8¼.

The aggregate recorded sales of Stocks since Saturday last, were $1,121,657.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	DAY OF SALE.
Arbitrias, Chihuahua, Mex., $1			Mar 29—April 9
Alpha, Gold Hill, Storey co., Nev., $30			Mar 24—April 24
Altaville, $1.25			April 14—April 30
Blue Ledge, $1.50			April 14—Ap il 28
Beard & Beaver, Lander co., Nev., 50c			April 14—May 1
Baltimore American, Storey co., Nev., $2			April 12—April 28
Bunker Hill C. G. & S. M. co., $1.50			Mar 23—April 4
Bullion			$10 00
Cosala, $1			April 26—May 12
Comet Petroleum co., 30c			Mar 31—April 14
Crown Point			Dividend payable Mar 15
Consolation, $1.25			Mar 31—April 15
Capital, Lander co., Nev., $5			April 3—April 19
Cole, Storey co., Nev., $1			Mar 15—Mar 31
Chipiona, Sonora, Mex., $5			April 28—May 12
Chicago and Detroit Consolidated			Meeting April 16
Eagle Quartz, Amador co., Cal., $1			April 7—April 25
Evening Star, Humboldt co., Nev., 50c			Mar 31—April 14
Emerald Copper, $1			Feb 10—Feb 24
Eureka, Pinnacles Co.			Meeting May 1
Exchequer, $2			April 30—May 16
Geo. Washington, Alpine co., Cal., $1.50			Ear 24—April 10
Harker, Lander co., Nev., 50c			April 14—May 1
Honest Miner, Lander co., Nev., $1			April 7—April 18
Hancock, Copper, Del Norte co., 15c			Mar 31—April 14
Humboldt, Nevada			Annual Meeting April 10
Jefferson Lander co., Nev., 50c			April 14—April 30
Jeffrey Oil, Humboldt co., Cal., 50c			April 17—April 28
Kookuk, Contra Costa co., Cal., 10c			Mar 17—Mar 31
Lady Bell, 10c			April 14—April 28
Lady Brynn, Storey co., Nev., $1			April 9—April 21
Lady Bryan			Annual Meeting April 2
La Trobe T & M co., Storey co., Nev., $1			April 10—April 28
Madison, Lander co., Nev., 50c			April 14—April 30
Monitor, Lander co., Nev., 75c			April 14—April 30
Mosquito, Calaveras, Cal., $5			April 7—April 23
Moss Ledge co.			Meeting March 28
Marla, Chihuahua, Mex., $2			March 21—April 14
Manchester, Alpine co., Cal.			Meeting April 16
Nuestra, Sonora de Guadalupe, Mex., $1			Mar 31—April 16
Oregon, Lander co., Nev., 25c			April 14—May 1
Oxford Beta, Esmeralda, Nev., 50c			April 7—April 25
Old Colony, Austin, Nev., $1			April 14..April 28
Overman, Storey co., Nev., $15			April 3—April 18
Open Sesame, 50			April 20—May 2
Pride of the East, 50c			April 14—April 27
Providence, Nevada co., Cal., $1			Mar 17—Mar 31
Planet, Copper			Meeting Feb 22
Patrocinia & Dolores, Chihuahua Mex., $2.50			April 1—April 10
Peninsula, Lower Cal., $5			April 3—April 14
Refugio, Chihuahua, Mex., $2½			Mar 31—April 14
Refugio, Mex			Meeting April 2
Silver Cloud, Lander co., Nev., 50c			April 14—April 27
Santa Cruz 50c			April 14—April 28
Sweet Vengeance, $1			April 17—May 4
Siskiyou, $1.50			April 28—May 25
Sophia, Tuolumne county, $7			April 26—May 11
Shoshone, Lander co., Nev., $1			April 9—April 23
Siempre Viva, Sinaloa, Mex., $2.50			Mar 27—April 7
Salambo Copper, 50c			Mar 17—April 5
Seaton			Sale March 30
United States, Storey co., Nev., 50c			Mar 17—Mar 31
Yuba, Yuba co., Cal., $2			Mar 31—April 14
Yellow Jacket, Storey co., Nev., 150			Mar 17—April 17

*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 78	$ 78½
Gov. Legal Tender Notes	77½	78
State Bonds, 7 ₱ cent	85	86
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	70	..
San Francisco Bonds, 1858, 6 ₱ cent	70	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	58	55
Marysville Bonds, 10 ₱ cent	75	..
Stockton Bonds, 10 ₱ cent	60	65
Yuba County Bonds, 10 ₱ cent	75	80
Butte County Bonds, 10 ₱ cent	70	73
California Navigation Co	55	57
State Telegraph Stock	32	35
San Francisco Gas Co	..	..
Sacramento Gas Co	..	75
Spring Valley Water Co	63	63½
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	50	51
Central Railroad Co	..	65
North Beach and Mission	51	52
MINING STOCKS.		
Ophir	$ 680	$ 690
Gould & Curry	1050	1100
Empire M. & M. Co	215	220
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	1075	1080
Hollar-Potosi	390	395
Hale & Norcross	935	940
White & Murphy	....	....
Sierra Nevada	..	10
Yellow Jacket	815	820
Overman	87	88
Cedar Hill Tunnel	....	....
Vide West	9	10
Crown Point	1400	1410
Antelope	....	....
Esmeralda	1	5
Etna	....	....
Real del Monte	....	15
Bullion, G. H.	112	115
Buckeye	....	....
Mck Sides	....	....
Imperial	139	140
Alpha	405	410

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 50	@	7 00
Do Superfine	6 00	@	6 50
Corn Meal, ₱ 100 lb		@	3 50
Wheat, ₱ 100 lb	2 00	@	2 10
Oats, choice, ₱ 100 lb	2 00	@	2 10
Barley, ₱ 00 lb	95	@	1 00
Beans, ₱ 100 lb	4 50	@	5 00
Potatoes, ₱ 100 lb	1 05	@	1 15
Hay, ₱ ton	10 00	@	10 00
Live Oak Wood, ₱ cord	8 00	@	10 00
Beef, on foot, ₱ lb	6	@	7
Beef, extra, dressed, ₱ lb	12½	@	15
Sheep, on foot	1 00	@	2 00
Hogs, on foot, ₱ lb	8	@	9
Hogs, dressed, ₱ lb	12	@	13
Groceries, Etc.			
Sugar, crushed, ₱ lb	16	@	—
Do China	10	@	12½
Coffee, Costa Rica, ₱ lb	—	@	24
Do Rio	—	@	24
Tea, Japan, ₱ lb	90	@	1 00
Do Green	70	@	1 00
Hawaiian Rice, ₱ lb	8	@	10
China do	7	@	8
Coal Oil, ₱ gal	75	@	87½
Candles, ₱ lb	22	@	24
Ranch Butter, ₱ lb	40	@	45
Isthmus do	35	@	45
Cheese, California, ₱ lb	20	@	26
Eggs, ₱ doz	40	@	42½
Lard, ₱ lb	22	@	—
Ham and Bacon, ₱ lb	—	@	22½
Shoulders	20	@	22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45	@	50
do pickled ₱ lb	—	@	—
do Oregon	35	@	40
do New York, ₱ lb	50	@	—
Cheese, ₱ lb	25	@	35
Honey, ₱ lb	30	@	40
Eggs, ₱ doz	—	@	50
Lard, ₱ lb	25	@	—
Hams and Bacon, ₱ lb	20	@	28
Cranberries, ₱ gal	75	@	1 00
Potatoes, sweet, ₱ lb	8	@	—
do Irish, ₱ lb	1	@	1½
Tomatoes, ₱ lb	—	@	—
Onions, ₱ lb	6	@	8
Apples, No. 1, ₱ lb	3	@	8
Pears, table, ₱ lb	8	@	25
Plums, dried, ₱ lb	—	@	—
Peaches, dried, ₱ lb	—	@	—
Oranges, ₱ doz	75	@	1 00
Lemons, ₱ doz	1 00	@	1 25
Chickens, apiece	87	@	1 12
Soap—Pale & C. O	10	@	12
Castile	14	@	15

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, March 17, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb. common, 1½@1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	60	@	65
American Pig ₱ ton	55	@	00
Refined Bar, bad assortment, ₱ lb	3	@	—
Refined Bar, good assortment, ₱ lb	3½	@	—
Boiler No. 1 to 4	4	@	5
Plate No. 5 to 0	4½	@	6
Sheet No. 10 to 13	4	@	—
Sheet No. 14 to 20	5	@	—
Sheet No. 24 to 27	5½	@	—

COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing ₱ lb	36	@	38
Sheathing, Old	20	@	30
Sheathing, Yellow	30	@	32
Sheathing, Old Yellow	12	@	13
Bolts	13	@	16
Composition Nails	30	@	32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	14	@	15
Plates, I C Charcoal	12	@	13
Roofing Plates	11	@	12
Banca Tin Slabs, ₱ lb	30	@	5

STEEL.—English Cast Steel, ₱ lb | 12½@16

QUICKSILVER.—Per lb | — | @ | 65

For export	55	@	—

ZINC.—Sheets ₱ lb | 9½@10

LEAD.—Pig ₱ lb | 8 | @ | —

Sheet	10	@	12
Pipe	10	@	12
Bar	10	@	11

BORAX—California, ₱ lb | 20 @23

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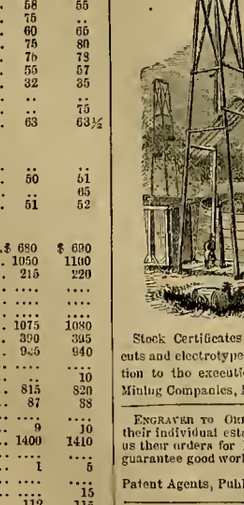

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There is not one female invalid in twenty that has been suffering from nervous debility or diseases peculiar to her sex, but can be permanently cured by spending from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn of a single regret from husband or wife of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has labored successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo-Therapeutic College.

To all whom it may concern:

I have known Dr. Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as honest, faithful delineator of character, and as such can cheerfully recommend him to the public.

For the good of Science,
L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

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W. D. Hooker's Patent, August 15, 1865.

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AUSTIN Z. PAGE,
12v12-tf Patentee.

Mining Summary.

CALIFORNIA.

ALPINE.—New and important developments have been recently made in the Morning Star claim, Great Mogul district, and in the Buckeye No. 2, at Scandinavian Cañon, of which we find the following account in the Silver Mountain *Bulletin* of March 17th:

Great Mogul District, Alpine Co.—Johnny Bull must have been reaping a rich harvest from the stockholders of the Morning Star company, (located in the above named district,) during the past summer and autumn, as a large amount of their ore was hauled to San Francisco during that time and sold to an agent of a Swansea (Wales) firm, for, we believe, $105 per ton delivered at San Francisco. Latterly, the stockholders becoming satisfied that the ore was worth more, sent a few weeks ago a quantity of the "black ore" from their mine to the Yellow Jacket mill, in Nevada, and the following is the return per ton:

Silver per ton,	$420 61
Gold " "	303 04
Copper " "	78 33
	$801 98

It would appear that our Swansea friends were having a very good thing if they could only have kept it—the copper alone yielding a percentage double that of our best copper mines in this State. There are two distinct characters of ore found in this celebrated mine; the ore designated the "black ore," which has all the density and weight of iron ore, presents a solid mass of mineral, there being little or no rock intermixed; this is the ore that has been lately shipped to England, and the same as worked at the Yellow Jacket mill; the other variety has all the appearance of the yellow copper ores, the value of which has not as yet been ascertained, owing to its impracticable nature—none of the present appliances used in working silver ores having as yet been able to separate the base from the precious metals contained therein. We learn that it is the intention of the company to have the next working at the Yellow Jacket mill made up of a mixture of the two ores, and if a successful result is obtained, to erect a similar mill at the mine.

Buckeye No. 2—Scandinavian Canon.—On Saturday evening last a report got afloat that this company had struck a "big thing" in their claim, which is located at the source of Scandinavian Cañon, about two and a half miles from town. The first location on this lode was made by the Lady Franklin company. The Buckeye No. 2 being a northern extension on the same lode. We paid a visit to the claim on Wednesday, and after entering the tunnel for 140 feet, found as well defined a ledge full six feet in thickness as we ever witnessed. We learned from F. Mauk, Esq., the superintendent, that they struck the ledge some weeks since, but had kept things close, in order to test the ledge thoroughly, before making it public. Since first striking the ledge they have taken out about fifty tons of as rich ore as can be produced from any mine this side of Montana, without assorting. There seems to be but very little difference, as to quality, in the whole thickness of the vein, every piece of the ore being thickly studded with ruby silver. No estimate of a yield of less than $100 per ton has been made by those who have examined the ore taken out, but as it contains sulphur, antimony and copper, roasting will have to precede the crushing and amalgamating, we shall have to await a working return, until we have more milling facilities than we have at present. The ledge at the point cut is only about sixty feet from the surface croppings, but even at this superficial depth, presents a solidity not found in other ledges hundreds of feet deeper. Other mines here are also doing finely, and the citizens of Alpine are very jubilant over these rich and flattering prospects.

HUMBOLDT.—There is some excitement in Humboldt county over the reported recent discovery of a rich silver district at Black Rock. The *Sage Brush*, published at Susanville, speaks as follows of the new diggings:

Judge Harvey immediately dispatched specimens of rock to C. Isenbeck, assayer and copper smelter, resident in Genesee District, Plumas county, and taking other specimens, went in person to Unionville, Nevada, for tests. Results of assays from rock taken to Humboldt by the Judge range from a trace of silver to $418 per ton, and returns from Isenbeck show $85, $285, $650, $2,400.03, $2,100.76c, $2,100 84, $3,300.65, $3 800.37. Many other assays have been had from Isenbeck, and nearly every return justifies the belief of the discovery of a mining district unrivaled or unequaled in the history of mines.

Since the establishment of the Hardin District, Judge Harvey's camp has been unbroken, and all visitants are outspoken of his hospitality and kindness.

About two weeks since Mr. Isenbeck made his appearance in our town. He is now in the employ of the Harvey company, and has gone to Black Rock. Recent information from Judge Harvey and persons having returned from Black Rock, report Mr. Isenbeck highly pleased, pronouncing it the richest discovery of the age.

Throughout the country the rumor has gone, and almost every portion of our country is represented in the mines.

We can no longer doubt. Too many evidences have been furnished us of the value of this district, and drifting along with the current of events, we have our visions of wealth, prosperity and happiness.

We find in another paper the following somewhat extraordinary statement regarding the ores from this district:

The ore is said to be of a peculiar character. Specimens sent to San Francisco and Marysville for assay are sometimes returned to *contain not a trace* of gold and silver, but which *yield largely by working process.*

If the last statement is true, we agree in the opinion that either the ore or the assayer is probably of a "peculiar character."

CALAVERAS COUNTY.—The following we find in the Copperopolis *Courier* of March 24:

The strike recently made in the new shaft of the Keystone claim bids fair to be an important one. In the bottom of the shaft, which is about fourteen feet in depth, is a handsome lead about two feet wide. The lead is widening materially toward the northwest, and may lead to a large and valuable deposit of ore.

Meader & Co. shipped from Stockton, March 19th, 43,420 pounds Union copper ore; March 20th, 20,130 pounds

PLACER COUNTY.—The recent discovery of a gold-bearing quartz ledge, near Colfax, is causing something of a mining excitement in that vicinity. We have seen some of the rock, and would be content to own the lead, if it turns out much more of the same sort. Its richness was manifest without the aid of a glass.—*Placer Herald.*

NEVADA COUNTY.—A gentleman lately down from Meadow Lake informs us, says the Nevada *Gazette*, that times are quite dull there at present, but everybody is expecting a grand rush and flush times as the season advances. If the weather holds moderate, it is expected that the main roads will be open about the middle of April. The owners of building lots in the town hold them at about the same price as last fall, though little is doing in the real estate line now. The Winton mill is running regularly on rock from the Pacific ledge. The first lot crushed yielded $56 a ton; the second lot, $65.—*Marysville Appeal, March 23.*

GRASS VALLEY.—Since the starting of the new mill on the Lone mine, Mr. Hunt, the superintendent of the company, has had the shaft sunk some twenty feet deeper, passing entirely through the vein, which proves to be nearly three feet thick, revealing an almost inexhaustible supply of rock which will go from eighty to a hundred dollars to the ton.—*Grass Valley Union.*

A Rich Strike.—Mr. Rosenberg, a miner on Wood's Ravine, has struck a smashing rich streak of nearly pure gold, mixed with decomposed quartz and ochre. The only machinery used is a hand mortar, and with it some $6,000 have been taken out since the first of the year. So says the Grass Valley *Union.*

THE Grass Valley *National* of the 26th says:

Long Tom Mines.—Mr. L. A. Clarke returned from the above mines on Saturday. Mr. Clarke has been in the employ of G. D. Roberts & Co., working on a quartz ledge. The company put a shaft down one hundred feet, from which a level forty-five feet was run due south on the ledge. The ledge is from six to eight feet thick—never less than six feet. A ten-stamp mill has been erected, and was started about the 22d of February. The rock is easy to work, and will pay $60 per ton. In eight days run, 104 pounds of amalgam were cleaned up. Mr. Clarke is much pleased with the mineral prospects of that portion of California, and will return in a short time. In his opinion, G. D. Roberts & Co. have the biggest thing on this coast. Phil. T. Colby, recently of this place, is living at Havilah, near the Long Tom mines, where he has been elected District Recorder by the miners. Ex-Governor Wm. Bigler, of Pennsylvania, and J. C. Birdseye, of Nevada City, are now putting up a twenty-stamp mill at the latter place, W. W. Boston, of this place, having the contract for the work.

MARIPOSA COUNTY.—Two hundred and ninety bars, or pigs, of smelted copper, brought from Phillips & Haskell's smelting furnace, on the Buchanan lead, at the head of Chowchilla creek, Mariposa county, is now at the store of J. Pache & Co., commission merchants, Levee street. The lot weighs seventeen thousand six hundred and twelve pounds, and the metal assays about ninety per cent. of pure copper. A letter from the mine, received by a gentleman in this city, says that the discoveries recently made on the Buchanan lead prove it to be one of the richest mines found in the State. At a depth of sixty feet, the vein of ore is five feet wide, and the minerals of an extraordinarily rich quality. Astonishing developments will undoubtedly be made in that section of country next summer, says the Stockton *Independent.*

SIERRA COUNTY.—A correspondent of the Downieville *Messenger*, writing from Alleghany, March 11th, gives the following mining intelligence:

Mining is rather dull at present. The Masonic Company has been taking out from 150 to 160 ounces per week for some time, until last week. They had something of a cave, which was not much of a drawback, I believe. I have not heard that they cleaned up since.

Gov. Newell has returned and commenced operations with two men. We were expecting him to work fifty or sixty, as his machinery for a new mill was on the ground, and lumber and such things needed. It is reported that the Sierra Nevada Company has placed some impediment in his way, and that he intends to move his machinery. The Union Company keep their mill constantly running, and are well repaid. The Oak Flat Company are diligently at work running their tunnel, and will put a new mill up in the spring. The Twenty-one Company are waiting for good roads to open, so they can put up a new mill. The Fac-Simile tunnels are filled with water, so they cannot work to advantage for some little time to come.

VIRGINIA CITY AND VICINITY.

The accounts from the Comstock continue favorable. We give the following:

Good Ore.—The *Enterprise* of March 21st, says some exceedingly rich rock is now being taken from the deposit lately struck in the lower level of the Ophir mine. We were yesterday shown the certificate of an assay made of ore taken out across the whole face of a gallery twelve feet in width which shows it to be worth $261 60 per ton. Such ore as this is hard to beat and shows that the Ophir is all right below.

The Gould & Curry company are putting in a third pump at the Bonner shaft. The two plunger pumps now in use, each twelve inches in bore, raise the water 400 feet; the new pump is a lift pump of twelve inches bore and goes down below the plunger pumps. When the new pump is in, the company will be able to drain their mine to the depth of 800 feet. The new pump will be in operation in a few days. One engine will work the three pumps.

We find the following in the *Enterprise* of the 23d and 24th inst: We understand that the Globe company had yesterday drifted into the lead lately struck by them to the distance of thirteen feet, and were not yet through it. It is said that the assays run from $40 to $60. This, we think, is too much of a good thing. If the ore found will mill $30, the owners of the Globe have made their fortunes. We are very sure that the stockholders do not wish anything said about their mine but what is true. As yet there is no use in making a big blow over the strike, as it is not known what the ore will pay in the mills.

The Gould & Curry company are taking out daily about 200 tons of ore through their upper or D street tunnel. The ore comes from near the surface, and is very profitable to the company, as it costs a mere trifle for mining. This has nothing to do with the lower levels, from which the usual daily amount of ore is being taken.

The McClellan company, on Cedar Hill near the works of the Sierra Nevada company, are taking ore for crushing. It is thought that the rock coming out will pay handsomely.

Still Giving Out.—Our mines are still giving out silver bricks. Yesterday morning, bars to the value of $64,361 68 were shipped from this city. This is pretty good for one day. All our leading mines are at present yielding large amounts of excellent ore. Washoe is bound to come out all right yet. It is now satisfactorily proven that we have just as rich ores in the lower levels of our mines as has ever been found above. Our mills are all busy, and the chances are that we will see times lively hereabouts soon.

BULLION.—Wells, Fargo & Co. yesterday morning shipped from their office, in this city, 2,210 pounds of silver bullion, valued at $64,361 68; and from their Gold Hill office they shipped 195 pounds of bullion, valued at $5,950 43. The amount of crude bullion received for assay yesterday was as follows: Theall & Co., of this city, 2,509 ounces; Van Wyck & Co., of this city, 3,550 ounces; Leopold Kuh, of this city, 2,750 ounces; Edwards & Wiegand, Gold Hill, 3,688 ounces.

RICH ORE.—The *Enterprise* says: "We have seen a number of specimens of quartz rock of a white color, that were completely studded with free gold. The exact locality from which these specimens came is kept a secret, though the lead is said to be within thirty miles of Excelsior. If the lead contains much such rock as that exhibited to us, its owners can make all the money they want by a few months' work with hand mortars. We only want a ton of the nasty, lousy stuff.

"Specimens of two or three varieties of ore from the Blackrock country, about which the Honey Lake people have been so much excited, arrived in this city yesterday. Most of the specimens looked to us more like clay than ore. As they are to be assayed, we shall shortly learn about their value.

"Some Mexicans are said to have struck a lead of exceedingly rich gold bearing quartz in what is known as Lone Mountain, somewhere in the southern part of the Reese River country. They are going to work upon their claims with arastras."

[From the California Youth's Companion.]

JUVENILE SMOKERS.

We never look upon a group of juvenile smokers, or even see a single boy from ten to twelve years of age, with a lighted cigar in his mouth, without a feeling of uneasiness with regard to the future condition of that boy's manhood. Smoking is universally considered injurious to health, especially when practiced by very young people, and before the constitution has become sufficiently established to withstand such an unnatural attack upon it as is produced by the habit of smoking. We believe that medical men almost, or quite universally agree that tobacco, in any form, is a slow poison to the human system. It is true there are those who have escaped any serious inconvenience from its effects; but that that number is small. Tobacco may perhaps be advantageously used, under certain rare circumstances as a medicine; but we think it would be difficult, if not impossible, to find a single instance where no evil effects have followed its excessive use.

The taste for tobacco is not a natural one; it is something artificial and acquired. The instinct of brutes, ever prompts them to reject it. Taking reason for his guide, man would never indulge in its habitual use. Reader, if you are a smoker, do you recollect with what difficulty you formed the habit—how sick it made you at first; how pale you became; what nausea it produced! Do you think that since you have become accustomed to it, your system is any more naturally inclined to submit to its effects? If you do think so, you are very much mistaken. The natural system abhors it as much now as ever. You have vitiated your system, and by so doing rendered it insensible to its immediate effects. You have done precisely what the arsenic eaters do, who gradually accustom their bodies to the stimulating effects of that deadly poison, until they every day take into their system, without any perceptible harm, as much of the poison as would at first have destroyed life; but it never fails to shorten that life, and gradually break down the system. It is the same, though in less degree, with tobacco.

But there is another view of this habit—it has a moral as well as physical character. The habit of smoking, when indulged at a very early age, seldom, if ever, fails to act unfavorably upon both the intellectual state and moral character of the devotee. It has a direct tendency to repress intellectual energy, rendering its votaries indisposed to mental exertion. This every smoker admits. It produces a sort of drowsiness that is generally fascinating to the smoker. Does he ever think that this is merely another form of the terrible nausea which he first felt? Yet such is the fact, and it is precisely the first stages into which a person is driven when insanity is gradually taking possession of his brain!

TENNESSEE is showing up great mineral wealth. Near Cleveland is one of the largest copper mines in the world. Iron ore, tin, coal, marble, rock crystals, gypsum, paints, salts, and nitrous earths abound in the eastern section of the State. Gold has been found near the Georgia line. The whole section of country along the Nashville and Chattanooga railroad exhibits unmistakable evidences of petroleum. A flowing oil well has been struck near Tullahoma.

Important to Secretaries.

The following Act (introduced by Senator Robinson) was approved March 26th, 1866, taking effect immediately from that date :

AN ACT CONCERNING ASSESSMENTS UPON THE STOCK OF CORPORATIONS.

The People of the State of California, represented in Senate and Assembly, do enact as follows :

SECTION 1. The Trustees of any corporation, formed under the general laws of this State, shall have power to levy and collect, for the purpose of paying the proper and legal expenses of such corporation, assessments upon the capital stock thereof, in the manner and form and to the extent hereinafter provided, and not otherwise.

SEC. 2. No one assessment shall exceed five per cent. of the stated amount of the capital stock of the corporation, named in the articles of incorporation, and none shall be levied while any portion of any previous assessment shall remain unpaid, or uncollected, except in cases where all the powers of the corporation shall have been exercised in accordance with the terms of this act, for the purpose of collecting such previous assessment, and except, also, the collection of a previous assessment against one or more stockholders, restrained by injunction or otherwise ; in which case, further assessment may be levied and collected according to this act.

SEC. 3. No assessment shall be levied except by order of the Board of Trustees, concurred in by a majority of said Board, and entered upon the records of the corporation.

SEC. 4. Every order levying an assessment shall specify the amount thereof and the time when the person or persons to whom and the place or places where the same is payable. It shall also appoint a day subsequent to the full term of publication of the assessment notice on which the stock upon which assessments remain unpaid shall be deemed delinquent, which said day shall not be less than thirty, nor more than sixty days, from the time of the making of the said order levying the assessment, and a day for the sale of delinquent stock, which shall not be less than fifteen, nor more than sixty days from the time appointed for declaring said stock delinquent.

SEC. 5. Upon the making of such an order, the Secretary shall cause to be published immediately a notice thereof in the following form :

"[Name in full.] [Location of works.] Notice is hereby given that at a meeting of the Trustees of said Company, held on the [date], an assessment of [amount] per share was levied upon the capital stock of said Company, payable [when, to whom, and where, particularly]. Any stock upon which said assessment shall remain unpaid on the [day fixed] shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the [day appointed], to pay the delinquent assessment, together with costs of advertising and expenses of the sale. [Signature of the Secretary, with particular location of office.]"

SEC. 6. Said notice shall be published once each week for four successive weeks in some daily or weekly paper published at the place designated in the articles of corporation as the principal place of business of the corporation, and also in some paper published in the county in which the works of the corporation are situated, if a paper be published therein : *provided*, that if the works of the corporation are not situated within some State or Territory of the United States, then publication in a paper of the County shall not be necessary ; *provided, also*, that if there is no newspaper published at the place designated as the principal place of business of the corporation, then the publication shall be made in the newspaper published nearest thereto ; and *provided, also*, that the notice specified in the 5th section of this act may be served by delivering a copy thereof, certified by the Secretary, to each stockholder personally, and in case of such service upon all the stockholders of said corporation, then no notice by publication shall be necessary, and such personal notice shall be deemed complete.

SEC. 7. If any portion of the assessment mentioned in said notice shall remain unpaid on the day specified therein for declaring the stock delinquent, the secretary shall, unless otherwise ordered by the Board of Trustees, cause to be published in the same papers in which the notice provided for in Sec. 5 shall have been published, a notice substantially in the following form :

"[Name in full. Location of works.] *Notice.* —There is delinquent upon the following described stock, on account of assessment levied on the [date,] [and assessments levied previous thereto, if any,] the several amounts set opposite the names of the respective shareholders, as follows : [Names, number of certificate, number of shares, amount.] And in accordance with law, [and an order of the Board of Trustees, made on the [date,] if any such order shall have been made,] so many shares of each parcel of said stock as may be necessary, will be sold at the [particular place,] on the [date] at [the hour] of said day, to pay said delinquent assessments thereon, together with costs of advertising and expenses of the sale. [Name of Secretary, with particular location of office.]

SEC. 8. Said last named notice shall state every certificate of stock with the number of shares which it represents, and the amount due thereon, separately, except where certificates may not have been issued to parties entitled thereto, in which case the number of shares and amount due thereon, together with the fact that the certificates for such shares have not been issued shall be stated.

SEC. 9. Said notice, when published in a daily or weekly paper, or in both, shall be published as follows : When published in a daily paper, the same shall be published for a period of ten days, excluding Sundays and holidays, previous to the day of sale. When published in a weekly paper, the same shall be published for two weeks previous to the day of sale. The first publication of all delinquent sales shall be at least fifteen days prior to the day of sale.

SEC. 10. By the publication of the said notices, as hereinbefore provided, the corporation shall acquire jurisdiction to sell and convey a full, complete, perfect, and absolute title to all of the stock described in the notice of sale upon which any portion of the assessment or costs of advertising shall remain unpaid at the hour appointed for the sale, but shall sell no more of such stock than is necessary to pay the assessments due and cost of sale.

SEC. 11. On the day and at the place, and as nearly as may be at the hour appointed in the notice of sale, the Secretary, who is hereby fully empowered and authorized, shall, unless otherwise ordered by the Board of Trustees, sell, or cause to be sold at public auction, to the highest bidder for cash, so many shares of each parcel of said described stock as may be necessary to pay the assessment and charges thereon, according to the terms of said notice of sale ; *provided*, that if payment be made before the time fixed for sale, the party paying shall only be required to pay the actual cost of advertising.

SEC. 12. The person offering at such sale to pay the assessment and costs for the smallest number of shares, or fraction of a share, shall be deemed the highest bidder.

SEC. 13. If, at the sale of any stock under the foregoing provisions of this Act, no bidder shall offer to take and purchase the same for the amount of the assessments, and costs and charges then due upon the same, then and in such case the same may be purchased and bid in by the company or corporation, through the Secretary or President, or any Director or Trustee thereof, at a sum equal to the amount of the assessments, costs, and charges due upon the same ; and in pursuance and by virtue of such purchase, the said assessments, costs and charges, shall be credited, as satisfied and paid in full, on the books of such corporation, and entry of the transfer of such stock to such corporation, in pursuance of such sale and purchase, shall be made on the books of said corporation. While such stock shall remain the property of such corporation, the same shall not be assessable, nor shall any dividends be declared upon the same ; but all assessments and dividends shall be apportioned upon and against the other stock of such company not owned by such corporation. All purchases of its own stock made by any corporation, in accordance with the provisions of this section, shall be held valid, and as vesting the legal title to the same in said corporation ; and the stock so purchased shall be held subject to the control of the remaining stockholders, who may make such disposition of the same as they may deem fit, in accordance with the by-laws of the corporation or vote of a majority of all the remaining shares. Whenever any portion of the capital stock of any corporation is held by the said incorporation by purchase as aforesaid, a majority of the remaining shares of stock in said corporation shall be held to be a majority of the shares of the stock in said corporate company for all purpose of election or voting on any question before a stockholders' meeting.

SEC. 14. The times or dates fixed in any notice of assessment or notice of delinquent sale, published according to the provisions of this act, may be once extended for a period of not more than thirty days, by order of the Board of Trustees, duly made and entered on the records of the corporation, but no order for extending the time for the performance of any act specified in any notice shall be effectual unless notice of such extension or postponement be appended to and published with the notice to which [the] order relates.

SEC. 15. No assessment duly levied shall be rendered invalid by a failure to make proper publication of the notices hereinbefore provided for, nor by the non-performance of any act required to be performed in order to enforce the payment of the same ; but in case of any substantial error or omission in the course of proceedings for collection, all previous proceedings, except the levying of the assessment, shall be void, and publication shall be begun anew.

SEC. 16. No action shall be sustained to recover any stock, or invalidate the sale of any stock for delinquent assessments, upon the ground of any irregularity in making the assessment, or for any irregularity in or defect of the notice of such sale, or for any defect or irregularity in the sale, unless the party seeking to maintain such action shall first pay or tender *to the corporation or the party holding such stock so sold*, the sum for which the same was sold, together with all subsequent assessments which may have been paid thereon, and interest on such sums from the time they were paid ; and no such action shall be sustained unless the same shall be commenced by the filing of a complaint and the issuance of a summons thereon within six months after such sale shall have been made.

SEC. 17. "An Act Concerning Assessments upon the Stock of Corporations," approved April 4th, 1864, and all Acts and parts of Acts, inconsistent with the provisions of this Act, are hereby repealed ; *provided*, that such repeal shall not affect proceedings commenced for the collection of assessments heretofore levied, but all such assessments may be collected in accordance with the provisions of the laws then in force.

SEC. 18. This Act shall take effect immediately.

THE FIRST AMERICAN POETRY.—There are few girls or boys in this country who have not heard the nursery rhyme sung by their mother while rocking the cradle :

"Lull-a-by baby upon the tree top;
When the wind blows the cradle will rock;
When the bough breaks the cradle will fall,
And down will come cradle, baby and all."

But how many of you know the origin of the simple lines? We have the following account from the records of the Boston Historical Society : Shortly after our forefathers landed at Plymouth, Massuchusetts, a party were out in the field where the Indian women were picking strawberries. Several of these women, or squaws, as they were called, had *papooses*—that is, babies—and having no cradles, they had them tied up in Indian fashion, and hung from the limbs of the surrounding trees. Sure enough, "when the wind blew these cradles would rock." A young man of the party, observing this, peeled off a piece of bark, and wrote the above lines, which, it is believed, is the first poetry written in America.

COFFEE.—It is somewhat singular to trace the manner in which arose the use of the common beverage of coffee, without which few persons in any half or wholly civilized country in the world now make a breakfast. At the time Columbus discovered America, it had never been known or used. It only grew in Arabia, or upper Ethiopia. The discovery of its use as a beverage is ascribed to the superior of a monastary in Arabia, who, desirous of preventing the good monks from sleeping at the nocturnal services, made them drink the infusion of coffee, upon the report of shepherds, who observed that their flocks were more lively after browsing on the fruit of that plant. Its reputation spread through the adjacent countries, and in about 200 years it had reached Paris. A single plant brought there in 1714 became the parent stock of all the French coffee plantations in the West Indies. The extent of the consumption now can hardly be realized. The United States alone annually consume it at the cost on its landing of from fifteen to sixteen millions of dollars. You may know the Arabian or Mocha, the best coffee, by its being of a dark yellow color. The Java and East Indian, next in quality, are larger and of a paler yellow. The West India Rio has a blueish or greenish gray tint.

COINCIDENCE.—It happened a few days since, that three steamers were going out of the Gate almost simultaneously, and met a fourth just off the Heads. They were, the opposition steamer America, for San Juan, the steamers Pacific and Montana for Portland, and the Sierra Nevada coming in. The usual salutes were duly exchanged by the steamers. Such a sight is seldom witnessed in the largest commercial ports in the world.

CURIOUS FACT.—There is a curious fact concerning the Lincoln medals struck for the great sanitary fair at Chicago. The die cracked in the making, and the line it left marks the exact course of the bullet which took President Lincoln's life.

AN almost incredible story is told of a telegraph operator in Washington, to the effect that he lately received two long dispatches by two different instruments simultaneously, interpreted them both by sound, and wrote them out simultaneously as received, one with his right, and one with his left hand.

BOYS are a good deal like farina jelly—just as you mould them they are likely to turn out.

1852. 1866

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Is universally read in every city, town, village and mining and agricultural precinct in California, and offers unusual and unequalled advantages to those who desire to bring their business prominently before the community. Only a limited space is devoted to advertising. All advertising pages are also largely occupied with fresh and interesting reading matter, and no advertisement can escape attention. The charges for advertising are not so large, proportioned to the benefits derived, as those of other papers. Liberal terms will be made with those who advertise for three or six months, or by the year.

BROOKS & LAWRENCE,

GOLDEN ERA BUILDING,
No. 543 Clay street, near Montgomery, San Francisco

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

DEWEY & CO., Publishers.

OFFICE—No. 505 Clay street, corner of Sansome, 2d floor.

Terms of Subscription:

One copy, per annum, in advance,.....$5 00
One copy, six months, in advance,..... 3 00

☞ For sale by Carriers and Newsdealers. ☜

It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventions can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. Elwin Davis, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:
Saturday Morning, Mar. 31, 1866.

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the MINING AND SCIENTIFIC PRESS, of San Francisco, to the consideration and support of the miners of the Pacific coast.

OUR FOUNDRIES.

Since our last issue, we have visited but one foundry, viz., the Fulton, where we found the proprietors really too busy to give us any lengthy description of the work in progress. We learned, however, that the works are now building the machinery for a steamboat for Messrs. Nelson, Anderson & Runyon, the hull of which is being constructed at the shipyard of John North. The Fulton is also turning out the machinery for a boat for Col. Bulkley, for the Russian Telegraph Expedition. Orders are on hand at this foundry for four sawmills, one quartz mill, one stationary engine, besides a great deal of general work, which forces the establishment to run day and night.

The lively aspect of business among the foundries of our city, is a strong indication of improving times over the State.

CONCENTRATORS.—We are glad to notice that more attention is being given to this economical class of machinery. Messrs. Bigelow Brothers, of this city, who have given much consideration and practice to the operation of concentratore in gold and sulphuret saving, have just ordered the third Hendy's Improved Patent Prater Concentrator for the Cony mill, in Amador county. Within a short period, there have been several more of these machines ordered in that county. Messrs. Bigelow Brothers are working successfully, and we hope they will reap a rich fortune through their active and liberal enterprise.

SMOKY CHIMNEYS are morally and socially unhealthy, if not physically so; consequently, every well regulated institution should guard against them. One of the most successful remedies for smoky chimneys with which we have yet become conversant, is the patent chimney top of B. A. Henriksen, advertised in another portion of this paper. It is an article worthy of examination. Patent rights are offered for sale. We understand the inventor has also a very ingenious pump, which is attracting much attention.

QUARTZ MILLS.

In crushing ore, the first point is to pulverize it to the desired fineness with the least possible power, then to avoid waste of power, and then economy of construction and maintaining in order. As combining these principles we have always contended, as have the ablest miners of the world generally, that the stamp did it with as near an approach to perfection as possible, and it had demonstrated its adaptability to the purpose by many centuries of faithful trial. We had looked for improved methods of operating stamps, but doubted the possibility of their displacement. A stamp is lifted, is then loosened, and falls upon the ore to be crushed. If the die holding the ore solid, clean, and contains just the amount of ore the stamp can crush, for this blow it appears to make use of all the power expended in lifting it; but to keep up the full effective power, these conditions of a solid, clean and true die, or mortar, and the maximum of ore that can be crushed, must all be continuous. These conditions will not result from the operations of a set of stamps, and are therefore impossible. A stamp, particularly in dry crushing, may often strike upon a body of ore already crushed, or mixed with that which is fine enough and thus waste a blow, or it may strike upon the naked die, and there are many other conditions well known to millmen where the effectiveness of stamps is lost. Some men are much more skillful feeders than others, simple as it may appear to shovel rock into a battery, and those with taste for music are preferred as they can judge best by the sound how the stamps are working, and therefore "the music of the stamps" is a truthful as well as poetic expression. Such are the defects of the plain, effective, and venerable stamp. In operating with stamps, the lifting and dropping of such heavy bodies of iron, necessitates the construction of a very costly frame work and bed, the aim of which is solidity, and from the nature of the operation, the jarring of loose iron, it is almost impossible to maintain solidity for any great length of time. A battery of stamps is cumbrous, noisy, and disagreeable in managing, of very costly construction, and expensive to operate and maintain, but with all the defects we have observed, they are to this day the favorite with the great majority of miners, and are in almost universal use wherever mining operations are carried on. * * *

We have examined the operation of a new invention called "Gardiner's Thunderbolt Crusher," which obviates the defects we have mentioned of the stamps. The one to which we refer is in operation at the Coral and Aspinwall mill at Amador, a few miles north of this city, and which was inaugurated with the honors on Saturday last. The machine is an improvement on stamps as the nut cracker is an improvement on the hammer and anvil at table. The invention consists in a pair of moveable, nearly upright jaws, with crushing surfaces of about two feet square having arms which rise about three feet and are connected with a crank shaft having two short cranks reaching opposite ways, so that in the revolution of the shaft the two crushing plates move from and towards each other simultaneously. One of the peculiar features of the invention is the relative axes of the two crushing plates. One of these is from the synchial axis, or place of contact of the two plates, six inches, and the plate is cast with a curve of six inch radius, and the other is eighteen inches from the same line and is cast with a curve of a radius of eighteen inches. The plates are flat with the exception of the narrow strip at the lower portion of closest contact, where they are of the curves mentioned, and being of white, chilled iron will not be worn out in many month's use. Strong steel bars pass through the block on which the crushers rest, and hold screws by which the crushers are adjusted, or gauged to any fineness or drawn together in case of wear. The whole is in a strong cast iron frame, above five feet in hight, four feet in width, and about eight feet in length. This is bolted to a well anchored floor and occupies a space of about eight by ten feet. Through the floor is an aperture where the crushed ore passes into moveable screens or seives which, in this case, have twelve hundred holes to the square inch. The screen is moved by an arm attached to one of the jaws of the crusher. In the operation we witnessed, one ton of ore, generally in pieces of several pounds' weight, was crushed with apparent ease, without noise, jar, or dust, and very effectually in just forty-six minutes, the power used being a small Little Giant engine and boiler of 25-horse power, running with sixty-five pounds of steam. The boiler and engine are a late invention, and constitute a very compact, economical, and effective machine, occupying about the same space as the crusher, and all look as if they could be taken up and carried away as easily as the stove, and the butter churn one would find in a farmer's kitchen; but we never carried away a hot stove, and do not know how easily it could be done. The crusher appears to do its work without waste of power, and without destruction to the machinery. It takes a piece of rock in its jaws and comes together with the regular power of the engine and the accumulated power the driving wheel has gathered in opening them, crushes the rock, part of which is fine enough to fall through, and is not in the way again; the balance falls to where it will be crushed finer the next time the jaws come together, or to where the abrading motion takes place given by the unequal distances of center of movement of the two plates. That at the trial the machine did so much work so easily, quietly and effectually; that it occupies so little room; is not liable to get out of order, and withal can be constructed so cheaply shows a manifest superiority over stamps and promises to supersede them.—*Reese River Reveille.*

REMARKS.—From the above description of the machine in question, it will be seen that its main principle is closely allied to that of "Blake's Crusher," though the mechanism is somewhat different, and it involves in addition to this the attempt (of doubtful utility) to combine, in the manner described, a *grinding* with a crushing motion.

We have heard something of this machine already, and, if we are correctly informed, the history of its development and experimental trials in New York city, has been by no means as satisfactory as might have been desired.

The impression conveyed by the preceding notice, is certainly a very flattering one. But there are one or two important points in the 'operation witnessed," which the writer has neglected to state, and which require elucidation, viz: How hard was the ore, of which one ton was crushed "in just forty-six minutes"—and *what was the degree of fineness of the crushing?* How much of the crushed ore would *pass through* a seive having "twelve hundred holes to the square inch"—or, through what size of mesh would the whole of it have passed? Another question of no less practical importance relates to the durability of the machine. How long will it last, and how often and to what extent will it need repairs and adjustments in order to secure the requisite quality and *uniformity* of work under conditions similar to those above? It is idle to suppose that "white chilled," or any other iron, can resist for "many months" the action to which it must be subjected in a machine like this, in order to crush hard quartz to the degree of fineness requisite for amalgamating purposes, at the rate of a ton in forty-six minutes. Quartz is *hard*, and in such a machine, with *fine* and *rapid* crushing, (if the thing can accomplish this at all), the wear of the jaws must be correspondingly rapid, and the machine need frequent adjustment. Moreover, any inequalities in hardness in the iron of the jaws would produce inequalities in their rate of wear, and these in turn, in spite of any possible adjustments, would produce inequalities in the fineness of the crushing.

While, then, we are by no means inclined to consider stamps as the *ne plus ultra* of crushing apparatus, and while we heartily wish success to those who try to devise a better means, we are nevertheless unacquainted as yet with anything that, on the whole, can supply their place, and we certainly do not think, judging from the foregoing description, that the invention in question is destined to revolutionize the quartz mills of the Pacific Coast.

LEGISLATIVE.—The bill regulating miners' measurement of water was indefinitely postponed in the Senate on Friday. Act to establish a Mining, Agricultural and Mechanic Arts' College had its final passage in the Senate, by 29 to 5. The session expires by limitation on Monday next, April 2d. A large number of bills are still on file. Mr. Singleton's Assembly bill concerning mining copartnerships, we believe, has finally passed. It is an important Act, and if it becomes a law, will create a sweeping revolution in the operations of unincorporated mining companies.

LEGISLATIVE FAVORS.—We are under obligations to the Hon. E. L. Smith, Chairman of the Committee on Mines and Mining in the Assembly, for copies of many valuable public documents.

PRESIDENT JOHNSON is 57 years old.

NEW BOOKS.

NEW BOOK.—We have been presented by the Pacific Publishing Company, No. 305 Montgomery street, with a copy of the "Trial of the Conspirators in the Assassination of the Late President Lincoln," which contains a fine steel engraving of the portraits of the assassins, the pursuit and capture of Booth and Harrold, together with all the evidence and testimony concerning the same; the celebrated Lon Letters, Ben. Wood Draft, Introduction of Pestilence, as well as all the minute incidents of the trials and executions, together with the *verbatim* report of the masterly arguments of the counsel for and against the conspirators, including that of the Honorable Reverdy Johnson. The whole work presents a book of over 400 pages, neatly bound, and is sold only by subscription, and must afford a good ready reference as well as present reading.

VALUABLE METALLURGICAL WORK.—We acknowledge the receipt of a catalogue of practical and scientific books, with a copy of Makin's Manual of Metallurgy, from Henry Carey Baird, Industrial Publisher, No. 406 Walnut street, Philadelphia, which contains the general properties of metals, their specific gravity, malleability, ductility, and tenacity, as well as their alloys. It also treats of non-metallic elements, metallic salts, giving sure rules for tests in a clear, simple, and succinct manner, with many illustrations; also, of metallurgical operations, furnaces for smelting and reducing ores, and of the fuels and heat applicable thereto, together with the principles of electro-metallurgy. This book contains over four hundred pages, 8vo., and seems to us to be a valuable one to the miner, whether engaged in the mill or prospecting in the mountains.

STRATMAN'S ALMANAC, FOR 1866.—We acknowledge the receipt of a copy of the Leslie-Stratman Almanac, with many fine illustrations of scenes and incidents. It contains a portrait of President Johnson, and a sketch of the house "where he made good clothes" in early life. The book contains sixty four pages, with a fine and life-like portrait of the handsome Major himself.

SNOW BOUND, by John Greenleaf Whittier; 56 pp., 12mo.; Tickner & Fields, Publishers, Boston.

Messrs. H. H. Bancroft & Co., No. 609 Montgomery street, have received the above work. Its truthful and graceful picture of New Eagland rural winter life is unmatched. Without exaggeration, with simple language, every page gleams with elegant poesy and sentiments of frankness and goodness. The book is richly printed, and will prove a little gem and keepsake to those who obtain it.

A GENERAL DIRECTORY AND BUSINESS GUIDE of the Principal Towns in the Upper Country, embracing a portion of California; together with Mining and Statistical information concerning Idaho Territory, and a Map of Idaho and Montana."

We have received a copy of the above work, whose general character is sufficiently indicated by its title, forms a neat volume of about 160 pages. The "Business Directory" contains the address of firms in all the more important towns of Oregon, and of Washington and Idaho Territories, as well as in those places of California whose situation and business relations connect them with the "Upper Country." The map is well executed, and besides Idaho and Montana, it represents in outline, Oregon, and Washington Territory, together with the northern portions of California, Nevada and Wyoming, and shows the principal routes to the new mining regions.

The part devoted to mining and statistical information is quite full, giving brief descriptions of the quartz mills, and more important mines in each district, lists of locations already recorded, with the number of feet they contain, data respecting population, table of distances, etc., etc. We recommend the book to those having business relations with the "Upper Country." The book is published by A. Gensoul, 511 Montgomery street, a fact which we omitted to mention last week.

THE San Jose *Courier* says that the people of that town frequently hear the firing of cannon in San Francisco, forty miles distant.

CONTRIBUTED FOR OUR CABINET.

Under this heading we shall continue to mention and describe according to merit, such specimens of ores, minerals, fossils, curiosities, etc., as may be presented or forwarded to us by mail or express prepaid. Each article will be numbered and placed in our cabinet and recorded with the name of the donor, and the claim or location from whence it came.

Fine Specimen.—We have received from Mr. M. A. Woodside, of Georgetown, Placer county, a very fine specimen, taken from his claim located near the center of that town. The specimen is tolerably compact, but contains talcose streaks, through which the sulphurets (iron pyrites) are mainly distributed. The gold is chiefly in the quartz, and is quite coarse. We have quite a full description of the claim from which it was taken, in a letter from our "travelling correspondent," who writes under the signature of "Prospector." His letter appears to-day.

Lead as an Amalgamator.—We clip the following from an Eastern exchange: "William M. Fuller of Chicago, has invented a machine for amalgamating gold by means of melted lead, instead of quicksilver. The machine is constructed so that the pulverized quartz is forced through the melted lead by atmospheric pressure, and by this means it is contended that the gold is extracted more completely than by any process of amalgamation with quicksilver. A trial of the machine was lately made at Chicago, and a committee appointed to examine its practical working, made a favorable report on the result, and claimed the invention as something wonderful. It is known that melted lead will form a complete alloy with gold, and being much cheaper than quicksilver, it is not improbable that the invention of Fuller's machine may prove an era in the history of quartz mining."

We cannot present here a treatise on the metallurgy of lead and gold, and will only say that although no fact is more ancient in the history of metallurgy, and none has been longer or more widely applied in practice than the fact that lead will alloy with gold and silver, yet the absurdity of expecting economical results from the process above indicated will be evident to all who are acquainted with the metallurgy of lead, and with practical quartz mining. Any extraction of gold or silver from their ores by means of lead, that does not involve a *fusion* of the ores themselves, can be at best but very partial and incomplete, and any effective treatment of these ores by means of lead, would be quite expensive here, demanding considerable fuel, and furnaces specially adapted to the end in view, and involving loss of lead, etc.

The agency of lead may be advantageously employed with *some ores* (particularly with rich and complex silver ores *accompanied by lead ores in considerable quantity*) even on this coast; but it is not adapted for *general* use, and the particular method of applying it, described above, is still less so.

Coral and Aspinwall Mines.—We have heretofore published assays of remarkably rich rock from the Aspinwall mine, Amador District, Lander county, Nevada, and are now pleased to learn that the company are hopeful of soon reaping a good harvest. The *Reveille* of March 12th, says:—"The mill of the Coral and Aspinwall is now completed for working without roasting, is of stone walls, substantially and quite conveniently constructed, although great improvement may be made in convenience. It has ten Knox pans, which are operated by a Little Giant engine of the same pattern and power of the one working the crusher. The Coral mine is within a few yards of the mill, and at the dump are several thousand tons of ore, with which the mill will be well and constantly supplied, and under the management of Mr. Wadleigh, the very personification of energy, will soon be adding largely to our shipments of bullion."

Twenty-Seven Children Drowned.—The Dayton (Ohio) *Journal*, as we learn by telegraph, states that twenty-seven children were drowned in a reservoir at Celina, Ohio, on Wednesday, February 7th. They were attending school in the vicinity of the reservoir, and at noon all the scholars but two—twenty-seven in number—went on the ice to slide, when it broke with them, the whole party drowning before help could reach them.

Quartz Mills in Colorado.—There are at present 150 quartz mills in Colorado.

RULES

FOR

ADVERTISING ASSESSMENTS

IN ACCORDANCE WITH THE

NEW ACT CONCERNING THE ASSESSMENTS OF CORPORATIONS.

In the order levying an assessment, appoint a day when the stock shall be *deemed delinquent*, which day must not be less than *thirty* nor more than *sixty* days from the date of the meeting levying the assessment. Be careful and allow ample time for completing the necessary term for advertising the assessment notice (once a week for four weeks), at the place of business and at the mine, *previous* to the day the stock shall be *deemed delinquent*.

Also in the order levying an assessment, appoint a day for the sale of delinquent stock, which must not be less than *fifteen* nor more than *sixty* days from the day appointed for deeming the stock delinquent. In appointing the day of sale, be careful to allow ample and convenient time for advertising the delinquent list, once a week for at least two weeks, at the place of incorporation and at the mine, the first publication at each place to be subsequent to the day for deeming the stock delinquent, and at least fifteen days prior to the day of sale.

The sum due on each certificate must be stated separately, with the number of the certificate and amount of shares it contains.

The dates (or times) mentioned in any assessment notice, or sale notice, can be once extended for a period not to exceed thirty days, by order of the Board of Trustees, and by publishing the postponement with the original notice.

Sales and postponements should be published in the same papers in which the assessment notice appears.

Delinquent sales, *if published in a daily paper*, must be published every day, except Sundays and holidays, the first publication to be fifteen days prior to the day of sale.

Proofs of assessment notices or delinquent sales, for publication in the Mining and Scientific Press, will be furnished within twenty-four hours from the time of receiving the copy, and corrected printed copies will be given free for mailing to papers at mines. This will avoid errors and save Secretaries the trouble of making duplicate manuscript lists.

New Blanks for advertising will be furnished free, with copies of the New Law, and further information concerning the same, on application at our office.

DEWEY & CO., Publishers,

MINING AND SCIENTIFIC PRESS, 505 Clay St.

Siempre Vivas.—Lieut. George E. Spoor, of the 7th Reg. California Volunteers, just returned from Fort Yuma, via Cape St. Lucas, has left us a sample of this curious plant, which he obtained at the Cape. The *siempre vivas*, notwithstanding it grows wild in Mexico, is a rarity in its own soil. Let it be taken up by its roots, dried like hay, packed away for months, or transported to any part of the globe, and then placed in water, it will instantly and almost miraculously unfold itself into a beautiful green foliage. Doubtless, many of our readers have observed this species of modest little green tufts about our nursery stores, without understanding its singular powers.

Barbacoas.—The accounts received by the last Panama steamer are everything but favorable. A correspondent of the *Alta*, who has been there, states that on arriving at Barbacoas, he found that *there was but a single claim which had paid a single dollar*. Insects and reptiles of all kinds are as plenty as a rank vegetation and a tropical climate can make them. The climate itself is pestilential and deadly, and the mines are mostly *poor*. Thus end the golden stories at first received. Another bubble is burst.

Kansas.—It is said that the State Geologist of Kansas, in his report soon to be published, will place in a very strong light the mineral importance of that State. He asserts that salt springs exist in nearly every county. Salt, in pure solidified form, in a stratum two feet in thickness, is found in Republic county. The coal measures are extensive, the Osage and Cherokee veins being especially rich. Beds of gypsum have been discovered. Iron ore and tin are also found.

From Arizona.—The Arizona *Miner* of February 28th, says:

We hear that the shaft on the Vulture lode, for B. Phelps, is completed, and that at one place the lode was found to be twenty feet wide, and of rich ore. An experienced operator in mines, lately arrived here, says the United States is the best opened mine he ever saw; that in his opinion not a stroke of work has been thrown away. This is complimentary. The Sterling lode is still attracting attention but we believe no definite arrangement has been made for a mill. Now that it is known that a number of mills are on the road here, our quartz owners should be getting their lodes in a saleable shape. It is useless to expect to sell ledges for large sums without thoroughly prospecting them.

A Valuable Secret.—The *Scientific American* says:

"The unpleasant odor produced by perspiration is frequently a source of vexation to persons who are subject to it. Nothing is simpler than to remove this odor much more effectually than by the application of such unguents and perfumes as are in use. It is only necessary to procure some of the compound spirits of ammonia and place about two table-spoonsful in a basin of water. Washing the face, hands and arms with this, leaves the skin as clean, sweet and fresh as as one could wish. The wash is perfectly harmless, and very cheap. It is recommended on the authority of a physician."

Astronomical.—Those interested in the study of astronomy may find something on which to employ their genius, from the fact that during the month of January there were two full moons, the month of February was favored with nothing of the kind, and March was heralded and will expire with a couple of these matured lunar luminations. Can any of our scientific friends explain when such an event happened before, and when it will occur again

How to Preserve a Boquet.—A florist of many years experience sends the following method of preserving boquets, to the *American Artizan*:

"When you receive a boquet, sprinkle it lightly with fresh water; then put it into a vessel containing some soap suds, which nourish the roots and keep the flowers as bright as new. Take the boquet out of the suds every morning and lay it sideways in fresh water, the stock entering first into the water; keep it there a minute or two, then take it out and sprinkle the flowers lightly by the hand with pure water; replace the bequet in the suds, and the flowers will bloom as fresh as when first gathered. The soap suds need to be changed every third day. By observing these rules, a boquet can be kept bright and beautiful for at least one month, and will last longer in a very passable state; but the attention to the fair, frail creatures, as directed above, must be strictly observed, or the 'last rose of summer' will *not* be left 'blooming alone,' but will speedily perish."

The total recognized debt of the United States on the 1st instant was $2,827,868,959. Of which $1,117,807,291 bears interest in coin, $1,185,428,980 bears interest in currency, $985,979 consists of matured debt not presented for payment, and $463,586,909 is debt bearing no interest. Deducting the $116,018,959 of coin and currency then in the Treasury, would leave the debt $2,711,850,000.

Diptheria is a very troublesome and dangerous disease. A very easy remedy has been found for it that will effect a very speedy relief. Take a common tobacco pipe, place a live coal in the bowl, and drop a little tar upon the coal, draw the smoke into the mouth, and discharge it through the nostrils.

Schools in Butte.—The new and promising town of Chico has just erected a brick schoolhouse, at a cost of five thousand dollars. There are 2,117 children and in the youth county.

The largest Sunday School in the world is at Stockport, England, and numbers about 5,000 scholars. There are 300 teachers; over 2,000 of the scholars are past 16 years of age.

Artists may not be guilty of direct falsehoods, but they give things a coloring.

The Bankers of the World.—"The Merchants and Bankers' Almanac for 1866," one volume octavo, published at the Bankers' Magazine Office, N. Y., contains lists of 1,620 National Banks (with the names of President and Cashier and New York correspondent of each), 400 State Banks; 1,100 Private Bankers in the U. S; Banks and Bankers in London, Liverpool, Dublin, Edinburg, Leeds, Manchester, Birmingham, etc.,; 600 Bankers in Europe, Asia, Africa, Australia, the West Indies, South America, New Zealand, Mexico, Canada, etc.; Alphabetical list of 2,000 Cashiers in the United States; list of 300 Savings Banks in New England and New York, with the deposits of each; Bank Statistics of the United States; List of Standard Works for Bankers; prices of Iron, Copper, Coal, monthly at New York, 40 years; Daily price of Gold for four years, 1862-1865; and six engravings, viz: The New York Stock Exchange (erected 1865); 2. The Paris Stock Exchange (1808-1826); 3. The Bank of England; 4. Banking Houses, Wall Street; New Insurance Buildings, Broadway, New York; 6. The Mutual Life Insurance Company of New York. 13v12-1t

California Steam Navigation COMPANY.

Steamer **CAPITAL**..... .....CAPT. E. A. POOLE.
" **CHRYSOPOLIS**....CAPT. A. FOSTER.
" **YOSEMITE**. ..... — —
" **CORNELIA**.....CAPT. W. BROMLEY.
" **JULIA**.. .....CAPT. E. CONCKLIN.

One of the above steamers leave BROADWAY WHARF, at 4 o'clock P. M. EVERY DAY (Sundays excepted), for Sacramento and Stockton, connecting with light-draft steamers for Marysville, Colusa, Chico, and Red Bluff.

Steamships AJAX, PACIFIC, ORIZABA, CALIFORNIA, ACTIVE and SENATOR, leave, as advertised, for Honolulu, Portland, Oregon, New Westminster, British Columbia, Victoria, V. I., Santa Barbara, San Pedro, and San Diego.

Office of the Company, northeast corner of Front and Jackson streets.

B. M. HARTSHORNE,
President.

13v12

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

ELDER KNAPP, speaking of long prayers, once said: 'When Peter was endeavoring to walk upon the water to meet his Master, and was about sinking, had his supplication been as long as the introduction to one of our modern prayers, before he got through he would have been fifty feet under water.'

A YOUNG LADY, recently returned from boarding-school, being asked at table if she would have some more cabbage, replied: 'By no means, madam, gastronomical satiety admonishes me that I have arrived at the ultimate culinary deglutition consistent with the code of Esculapius.'

SCHOOL ELECTION.—At the election in Silver City, last Tuesday, the proposition to raise $2,500 for building a school-house was decided in the affirmative, and the following officers were elected: Trustees—C. A. Gross, Caspar Haupt and J. K. Barney; Assessor and Collector, Jos. Munckton.—*Dayton Sentinel.*

Trades and Manufactures.

Pacific Glass Works

Are now prepared to execute orders for the manufacture of

All Kinds of Bottles to Order.

Office, No. 621 Clay street, San Francisco. 3v11-3m

JOHN DANIEL,
(SUCCESSOR TO O. GORI)
MARBLE WORKS,
No. 408 Pine st. bet. Montgomery and Kearny, San Francisco.

Mantels, Monuments, Tombs, Plumbers' Slabs,
Etc., On hand and Manufactured to order.

☞ Goods shipped to all parts of the State. Orders respectfully solicited. 5v3-3m

NATHANIEL GRAY,
General Furnishing Undertaker,
641 Sacramento St., corner of Webb, San Francisco.

Barstow's Metallic Burial Caskets and Cases.
1tf

THEODORE KALLENBERG,
Maker of Models for Inventors.
MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.
No. 418 Market street, San Francisco. n7-tf

Palmer's Patent
ARTIFICIAL LEG,
Manufactured in Philadelphia, Penn.
JARVIS JEWETT, AGENT.
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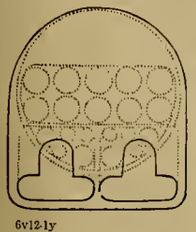

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For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, S. J. Ignatius College, Market street, San Francisco.
3v11 REV. A. MASNATA, S. J., President.

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7v12tf **Principals.**

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3v12-3m **C. J. FLATT, Principal.**

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLature of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:
Fire.....$12,973,949
Marine..... 84,498

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19, 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm Hooper,	Lloyd Tevis,
Anson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jos. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
O. Meyer,	L. B. Benehley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

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1852 1866

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THE SECRET OF WILMINDON HALL.
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THE GOLDEN ERA.
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Opinions of the Press:

THE GOLDEN ERA.—We would call the attention of all newly-arrived Californians to this excellent weekly cotemporary. We have seen the Era so frequently at the family fireside, and in the rude cabins of many industrious miners; that it would seem superfluous to recommend it to old Californians. It is the oldest literary journal on the coast. [S. F. Mining and Scientific Press.

THE GOLDEN ERA, which has just entered upon its fourteenth volume, is fully entitled to be considered as THE literary paper of the Pacific coast. Its proprietors understand the wants of the community, and furnish their readers with all the popular works of fiction as fast as the proof-sheets are received from the Eastern States and Europe, and with a greater variety of original matter in the line of light literature, than can be found in any similar paper on the continent.—[S. F. Alta California.

THE GOLDEN ERA has entered upon its fourteenth year of publication. How many competitors for public favor have been started during this time, and not possessing the freshness and originality of the GOLDEN ERA, have struggled through a short, sickly existence—at last to "flicker out"—almost unnoticed. No single paper in the State is more read and admired, and friends in the States appreciate it fully as highly as the thousands here who weekly scan its columns. It is no copyist, being in all its main features Californian, and unlike the "story papers" in general, its contents are interesting to all who take an interest in the literature of this coast.—[Napa Reporter.

THE GOLDEN ERA, as a good family paper, as a literary production, cannot be surpassed within the limits of America, and America beats the world in publication of first-rate literary papers. It is filled to overflowing with excellent reading matter, original and selected prose and poetry. It is now publishing, from advance sheets furnished from New York, two very interesting stories, each chapter of which is alone worth the subscription price of the GOLDEN ERA.—[Folsom Telegraph.

THE GOLDEN ERA is decidedly the best journal of the kind on this coast, and, we had almost said, in the United States. It is prepared with great care and labor, and publishes an immense amount of reading matter. The serial stories of the best authors are printed in its columns, and its local gossip is always pungent, racy and instructive.—[S. F. Examiner.

THE GOLDEN ERA is one of the best journals of its class in the whole country, and is carefully and intelligently conducted.—[S. F. American Flag.

THE GOLDEN ERA is enlarged by the addition of eight columns of reading matter. It was never more worthy the support of the reading public than at present.—[S. F. Morning Call.

THE GOLDEN ERA is decidedly the best family paper published in the State and we are pleased to learn that it is in a flourishing condition.—[Sacramento Bee.

THE GOLDEN ERA, as a strictly literary and news paper, is chief among the best. Its correspondence and editorials are of that originality of style so peculiar to this coast.—[Oregon Sentinel.

THE GOLDEN ERA is the best literary paper published on this coast. It abounds in stories both real and fictitious, which are worth a careful perusal by every one.—[Santa Cruz Sentinel.

THE GOLDEN ERA is as good a literary paper as can be procured on the continent.—[Red Bluff Independent.

THE GOLDEN ERA has entered upon its fourteenth volume. It is by far the best literary and family paper ever published on this coast.—[Sonoma Democrat.

THE GOLDEN ERA is a most ably conducted literary journal, in every way worthy of its large circulation, and characterized by a flow of wit and freshness of satire in dealing with the prominent follies of the age that is truly refreshing.—[Deseret News, Salt Lake City.

THE GOLDEN ERA is a fine family and literary paper, as the broad Union anywhere can boast of.—[Denver Rocky Mountain News.

THE GOLDEN ERA is the best family journal in the United States.—[Salt Lake City Telegraph.

THE GOLDEN ERA is a highly handsome quarto of fifty-six columns, comprising the freshest and the richest cream of American belles lettres. Nothing north or south, or east or west, can be compared to it as an elegant family and literary newspaper.—[Union Vedette, Salt Lake City.

THE GOLDEN ERA, instead of economizing during these dull times and presenting a paper to match the times, is as brilliant as ever. It has a talented corps of litterateurs, and keeps fully up to the mark.—[S. F. Dramatic Chron.

THE GOLDEN ERA is now in its fourteenth year of publication, and is established on a firm basis. It has a larger number of regular contributors, and gives a greater variety of reading matter than any other paper of the kind published in San Francisco.—[Quincy Union.

THE GOLDEN ERA has commenced its fourteenth year with a steady improvement in literary and typographical appearance.—[Yreka Journal.

THE GOLDEN ERA began in the infancy of the State, and has grown with it, until there is now hardly a post office in the State, or on this coast, where it is not taken. It employs the best writers in the Atlantic States, in Europe, and in California.—[Colusa Sun.

SUBSCRIBE FOR THE GOLDEN ERA.

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THE GOLDEN ERA for Three Months..... 1 50

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—AND AT THE—

State Fair at Sacramento, 1865,

—TO—

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—AND—

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JOB PRINTING of all kinds correctly and quickly done, at the office of the YOUTH'S COMPANION, 505 Clay street, corner of Sansome, by
16tf **DEWEY & CO.**

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Cosala Silver Mining Company, District of Cosala, Sinaloa, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of the Cosala Silver Mining company, held on Saturday, the 24th day of March, 1866, at the office of the company, an assessment of one dollar ($1) per share was levied on each and every assessable share of the capital stock of said company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the company, No. 510 Battery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Thursday, the 26th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 12th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

CHAS. BAUM, Secretary.
No. 510 Battery street, opposite the Custom House, San Francisco. mar31

Comet Petroleum Company, Mattole District, Humboldt County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the twenty-second (22d) day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
S M Balch	1	25	$7 50
S M Balch	23	50	15 00
Warren J Chapman	2	12	3 60
R L Holman	3	13	3 90
George J Hughston	4	25	7 50
George J Hughston	5	25	7 50
George J Hughston	24	50	15 00
James Gilbert	9	10	3 00
James Gilbert	18	10	3 00
W H Cummings	11	25	7 50
W H Cummings	12	25	7 50
W H Cummings	22	50	15 00
James T Watson	13	25	7 50
James T Watson	21	75	22 50
Jos W Low	15	50	15 00
C E Webber	20	50	15 00
J T Westheimer	27	40	12 00
Geo W Mcnamny & Co	28	100	30 00
M B French	34	50	15 00
Wm Green	35	50	15 00
R H Hall	37	25	7 50
J T Dean	38	100	30 00

And in accordance with law, and an order of the Board of Trustees, made on the 22d day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., on the 14th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale. L. CROSBY, Secretary.

Office, 36 Exchange Building, northwest corner Montgomery and Washington streets, San Francisco. mar31

Postage.—The postage on the MINING AND SCIENTIFIC PRESS to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents.

SUBSCRIBE FOR IT.—The large, illustrated sixty-four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

Julia Gold and Silver Mining Company, Virginia, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, the several amounts hereafter set opposite the names of the respective shareholders, on account of assessment of one dollar ($1) per share levied March 1st, 1866, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Sewall, G T	114	20	$20 00
Mitchell, J A	5	25	25 00
Mitchell, J A	6	25	25 00
Mitchell, J A	7	25	25 00
Mitchell, J A	8	25	25 00
Knox, A C	17	10	10 00
Frisch, J G	71	50	50 00
Frisch, J G	72	14	14 00
Taylor, Thos	73	50	50 00
Taylor, Thos	74	13	13 00
Reichel, Wm	75	50	50 00
Reichel, Wm	76	13	13 00
Pinchard, L	44	20	20 00
Pinchard, L	45	20	20 00
Pinchard, L	46	15	15 00
Pinchard, L	47	15	15 00
Pinchard, L	48	15	15 00
Pinchard, L	49	10	10 00
Pinchard, L	50	10	10 00
Pinchard, L	51	10	10 00
Pinchard, L	52	10	10 00
Gaillard, C	105	10	10 00
Lantheaume, L	106	10	10 00
Lagoarde, B	100	20	20 00
Thomas,	111	10	10 00
Montgomery, E L	113	5	5 00
Ford, J N	116	25	25 00
Levy, Louis	117	16	10 00
Haas, S	118	10	10 00
McCormick, Wm	122	10	10 00
McGormick, Wm	123	10	10 00
Lourenx & Co	147	20	20 00
Long, C	146	10	10 00
Long, C	157	10	10 00
Ansons, Victor	158	10	10 00
Van Lokeren, H	159	20	20 00
Romand, J F	163	12	12 00
Lemarie, F	164	14	14 00
Sweetzer, A J	168	12	12 00
Felix,	23	25	25 00
Gager, Jas H	4	25	25 00
Carmichael, J	10	25	25 00
Carmichael, J	11	25	25 00
Carmichael, J	12	25	25 00
Carmichael, J	13	25	25 00
Yates, L F	15	10	10 00
Leduc, M	154	10	10 00
Jolibois, J	26	20	20 00
Vivier, J N	38	20	20 00
Gillet, N J	54	10	10 00
Gillet, N J	58	5	5 00
Gillet, N J	59	5	5 00
Gillet, N J	150	15	15 00
Gillet, N J	167	10	10 00
Colman, Mrs	83	10	10 00
Lamolle, J	99	13	13 00
Lamolle, B	100	25	25 00
Lamolle, B	101	25	25 00
Lamolle, B	102	15	15 00
Pratolongo, L	60	10	10 00
Pratolongo, L	103	30	30 00
Page, F	115	10	10 00
Colman, N J	119	15	15 00
Colman, N J	120	10	10 00
Colman, N J	121	10	10 00
Plank, F	149	10	10 00
Plank, F	150	10	10 00
Plank, F	151	10	10 00
Pexet, J W	155	10	10 00
Golmon, A F	156	10	10 00
Ricard, Joseph	165	14	14 00

And in accordance with law, and an order of the Board of Trustees, made on the 1st day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Messrs. Olney & Co., at No. 620 Montgomery street, San Francisco, on the 16th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale. A. NOEL, Secretary.

Office, 607 Washington street, San Francisco. mar31

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 24th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Barbe, Jos	414 to 416 10-ea	30	$60 00
Barbe, Jos	417	5	10 00
Berges, P	34 and 35 5-ea	10	20 00
Blaise, Malvina	1 0	2½	5 00
Brown, J M	143 and 374 5-ea	10	20 00
Brown, J M	385	3	6 00
Brown, J M	386	7	14 00
Cohen, Wm	172	12½	25 00
Colin, Simon & Bro	200	10	20 00
Crachet, Felix	348 to 350 10-ea	30	60 00
Crachet, Felix	351	5	10 00
Fischer, Wm	375	10	20 00
Fischer, Wm	376	20	40 00
Fischer, Wm	377	5	10 00
Fox, C J	384	3½	7 00
Gray, C N	342 to 344 5-ea	15	30 00
Gray, C N	396	15	30 00
Halphine, E	411	10	20 00
Kelly, M J	260	10	20 00
Lapaniat, Blaise	118	10	20 00
McAllis & Gordon,	394 and 395 10-ea	20	40 00
Marble, Wm	352	12½	25 00
Mason, G E	333	4	8 00
Sanffrignou, Jules	410	3	6 00
sole, Gaspard	300	17	34 00

And in accordance with law, and an order of the Board of Trustees, made on the 24th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 625 Montgomery street, San Francisco, Cal., on Saturday, the 14th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up stairs, San Francisco. m31

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

ELECTROTYPE CUTS, ENGRAVINGS, ETC.—Our Job Printing Office is abundantly supplied with elegant engravings, ornaments, and other embellishments to suit the various branches of industry in this State.

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Beard & Seaver Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Blue Ledge Gold and Silver Quartz Mining Company, Kelsey District, El Dorado County, California

Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of one dollar ($1.50) and fifty cents per share on each and every share of the capital stock of the Blue Ledge Gold and Silver Quartz Mining Company, was levied, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, at 12 o'clock M. of that day, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

mar17 J. M. BUFFINGTON, Secretary.

Eagle Quartz Mining Company, Amador County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of one dollar ($1) per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary, at the Office of the Company, No. 10 Exchange Building, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on the 23d day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Building, San Francisco, California. mar10

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of February, 1866 the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Adams, Geo G	215	5	$ 7 50
Adams, Mary E	15	10	15 00
Andrews, M O	not issued	100	150 00
Brayton, J G	102, 103, 104, 105 127, 128, 129, 130 131, 222, 223, and 224	10 ea 120	180 00
Brayton, J G	196	4	6 00
Brayton, J G	225	2	3 00
Berry, Harrison	101	25	37 50
Booker, W L	255	10	15 00
Bolts, John	271	1	1 50
Boggs, Geo W	137	0	0 00
Boggs, A G	67	11	16 50
Bowland, Wm	241	5	7 50
Bell, Jonathan	38	5	7 50
Burk, John	236	10	15 00
Brown, Thos	234	10	15 00
Bradbury, Wm	159	5	7 50
Breed, T L	not issued	75	112 50
Coon, M B	110 and 111	25-ea 50	75 00
Coon, M R	114	5	7 50
Cone, Harriett E	10	5	7 50
Cook, A J	93	10	15 00
Clark, J Warren	not issued	10	15 00
Clark, Sarah A	122	5	7 50
Clark, Miriam	124	25	37 50
Clark, P A	115	5	7 50
Clark, P A	116 and 117	1-ea 2	3 00
Clark, P A	119 and 121	4-ea 8	12 00
Clark, P A	120	3	4 50
Cornwell, J F	82 and 83	10-ea 20	30 00
Coulter, Samuel	141	10	15 00
Calderwood, Mathew	160	10	15 00
Carmichael, A	230, 231, and 232	10-ea 30	45 00
Carmichael, A	233	9	13 50
Caster, John	278	5	7 50
Cone, Jesse B	18, 133 and 134	10-en 30	45 00
Cone, Jesse B	136	5	7 50
Cheeney, A W	not issued	110	165 00
Denning, Wm	168	10	15 00
De Graff, Wm	142, 143, 144, 145 146 and 216	10-ea 60	90 00
Davidson, Ole	57	5	7 50
Dutton, David	214	4	6 00
Dutton, David	219, 220, 242 and 243	10-ea 40	60 00
Eagan, E D	140	2	3 00
Elsworth, Wm	180	5	7 50
Grigsby, T L	99	10	15 00
Grigsby, A D	100	10	15 15
Grigsby, E D	77	10	15 00
Grigsby, R F	169	10	15 00
Gillam, Jas	73 and 74	10-ea 20	30 00
Green, Joseph	218	10	15 00
Griswold, M T	not issued	85	127 50
Hargrave, E J	170	5	7 50
Hayward, C C	45	5	7 50
Hammett, E W	264	10	15 00
Hockney, H W	137	5	7 50
Hastle, Robert	259	10	15 00
Hill, V B	69, 70, and 71	5-ea 15	22 50
Hughes, James	179	2	3 00
Hughes, James	292	3	4 50
Hendrickson, Henrietta	260	5	7 50
Herbert, Henrietta	20	10	15 00
Kather, Chas	90	15	22 50
Kercheval, Sarah A	240	10	15 00
Luciani, Charles	90	15	22 50
Linn, Geo	263	10	15 00
Lindau, A	257	5	7 50
Lawrence, F S	not issued	90	135 00
McLea, Donald	27	1	1 50
Mndgett, John	201 and 202	5-ea 10	15 00
Mott, Hiram	258	13	19 50
Mercer, Susan	98	10	15 00
Mylett, James	227 and 228	10 ea 20	30 00
Mylett, James	229	8	12 00
McGee, Jas	78	5	7 50
Mecklenburg, Joseph	272	5	7 50
Miller, G A	91	10	15 00
Marks, M	166	5	7 50
Mason, Chas	254	5	7 50
McGill, Wm	41	5	7 50
Mosher, Wm H	139	5	7 50
McDonald, A C	184	7	10 50
McGrath, J J	not issued	60	90 00
Nelson, J G	56	5	7 50
Nelson, A G	55	1	1 50
Nelson, Christopher	62	6¾	10 50
Pearson, I N	198	21	31 50
Pearson, I N	199, 200, 201, 212 and 213	5-ea 25	37 50
Phillips, W I.	92	15	22 50
Phillips, W I.	275	10	15 00
Pilkington, J B	75 and 76	20-ea 40	60 00
Pilkington, J B	77	8	12 00
Potter, J C	97	5	7 50
Phelps, Tracy F	not issued	65	97 50
Randell, S W	215	5	7 50
Roberts, J B	279	0	0 00
Robinson Chas F	not issued	25	37 50
Squarza, V	107	5	7 50
Severson, T	not issued	4	0 00
Sedgley, Jas T	not issued	105	157 50
Townsend, T B	87	10	15 00
Winn, Mathew	101	5	7 50
Vick, J	285	10	15 00
Whitton, C J	288	10	15 00
Whitton, M S	185, 180, 187, 188 189, 190, 191, 192 193, 101, 195, 196	10-ea 120	180 00
Whitton, M S	291	7	10 50
Whitton, Wm H	204, 205, 206, 207 237, 238, and 239	10-ea 70	105 00
Whitton, Wm H	287	5	7 50
Whilton, Green	84, 85 and 86	10-ea 30	45 00
Whitton, E	95	10	15 00
Whitton, Wm T	214	10	15 00
Wyckoff, J L	274	10	15 00
Williams, Samuel	60	30	45 00
Williams, Samuel	280	5	7 50
Woodward, E P	111	10	15 00

And in accordance with law, and an order of the Board of Trustees, made on the said 20th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of Olney & Co., No. 626 Montgomery street, on the 10th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. mar24

Good Hope Gold and Silver Mining Company, Alpine District, Alpine County, California.

On and after April 23d, 1866, the Office and principal place of business of the above Company, will be located in the town of Markleeville, Alpine County. By order of the Board of Trustees.

PRESTON MORRIS, Secretary.

San Francisco, March 23, 1866. mar24-3w

Harker Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Honest Miner Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of March, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 18th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front Street, San Francisco. mar10

Jefferson Gold and Silver Mining Company, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of March, 1866, an assessment of fifty cents (50) per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
W W Theobalds	9	100	$10 00
J McMahon	557	50	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 620 Montgomery street, San Francisco, on the 31st day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. B. WINEGAR, Secretary.

Office, 308 and 310 Front street, San Francisco. mar17

Lady Bell Copper Mining Company, Low Hillside Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, at the office of the Company, or to Geo. H. Russell, at Crescent City.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

C. HEYWOOD, Secretary,

mar17 No. 311 Market street.

Madison Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Monitor Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of seventy-five cents per share was levied upon the Capital Stock of said Company, payable immediately in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco mar17

Mosquito Quartz Mining Company, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 3d day of March 1866, an assessment of five dollars ($5) per share ($1 per foot) was levied upon the capital stock of said Company, payable on Monday, March 5th, 1866, in United States gold and silver coin, to E. D. Waters, Jr., Treasurer, at the office of the Company, 536 Clay street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 23d day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

E. H. WATERS, Secretary.

Office, 536 Clay street, San Francisco. mar10

Oregon Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, or to the Superintendent, at the mine.

Any stock upon which said assessment shall remain unpaid on Saturday, the 7th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Wednesday, the 25th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GEO. H. PECK, Secretary.

Office, corner Broadway and Sansome streets, San Francisco. mar10

Old Colony Gold and Silver Mining Company.

Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 8th day of March, 1866, an assessment of four (4) dollars per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, No. 523 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. O. HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco, second floor. mar10

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

Pride of the East Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 13th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Friday, the 27th day of April 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Providence Gold and Silver Mining Company. Location of Works: Nevada Mining District, Nevada County, Cal.

NOTICE.—There are delinquent upon the following described Stock, on account of Assessment levied on the 5th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
John S Carter	100	20	$20 00
John S Carter	101	20	20 00
John S Carter	115	10	10 00
Phebe E Carter	167	5	5 00
Peter M Cain	170	10	10 00
Jos C Collins	232	10	10 00
Jos C Collins	233	10	10 00
Jos C Collins	234	10	10 00
Jos C Collins	235	5	5 00
Jos C Collins	250	10	10 00
Jos C Collins	260	10	10 00
Jos C Collins	261	10	10 00
Jos G Collins	262	5	5 00
Allen Cody	247	10	10 00
W P Davidson	25	3	3 00
Chas Haskell	152	23	23 00
Chas Haskell	156	20	20 00
Mills & Evans	135	6	6 00
Spencer Poole	251	25	25 00
J R Richards	108	5	5 00
J R Richards	253	25	25 00
Maria Sutherland	121	10	10 00
J B Sutherland	128	10	10 00
M Saunder	171	10	10 00
Bertha Seaman	199	5	5 00
H T Thoburn	98	2	2 00
J J Bobbins	198	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 620 Montgomery street, San Francisco, Cal., on the 31st day of March, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House. mar17

Santa Cruz Petroleum Oil Works Company, Location: Santa Cruz County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of March, 1866, an assessment (No. 15) of fifty cents per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary, R. Wegener, 415 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal. mar17

Silver Cloud Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 13th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Friday, the 27th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

United States Mining Company, Virginia District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 7th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Jas L Blakie	304	50	$25 00
Jeremiah Dwyer	310	20	10 00
M B French	406	50	25 00
Chas Hanson	329	10	5 00
C L Harvey	330	10	5 00
A C Knox	74	2	1 00
John McArthur	412	50	25 00
H S O'Neal	328	10	5 00
John Penniman	179	5	2 50
John Penniman	337	20	10 00
D J Perkey	413	50	25 00
Horace Porter	323	250	125 00
J B Quinn	327	10	5 00
J L Shiman	215	5	2 50
J L Shiman	216	5	2 50
J L Shiman	391	10	5 00
S A Snow	379, 380, 381, 382, 383	10-ea 50	25 00
S W Stoddard	407	35	17 50
Wm Van Housen	390	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 7th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 31st day of March, 1866, at the hour of 12 o'clock, M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House. mr17

BOOKS IN THE OLDEN TIME.—Before the art of printing, books were so scarce that ambassadors were sent from France to Rome to beg one copy of Cicero's works, and another of Quintillan's, because a complete copy of these books were not to be found in all France. Albert Abbott, of Glembours, with incredible labor and expense, collected a library of one hundred and fifty volumes; and this was considered a wonder indeed. In 1494, the library of the Bishop of Winchester contained parts of seventeen books on various subjects; and on his borrowing a book from the Convent of St. Swithin, he had to give a heavy bond, drawn with great solemnity, that he would return it uninjured. When a book was purchased, it was an affair of such consequence that persons of distinction were called together as witnesses. Previous to the year 1300, the library of the University of Oxford consisted only of a few tracts, which were carefully locked up in a small chest, or else chained, lest they should escape; and at the commencement of the fourteenth century the royal library of France contained only four classics, with a few devotional works.

AN ENCOUNTER WITH A BEAR.—A man living near Pembina, (in Dacotah Territory) had a terrible fight, not long since, with a grizzly bear, for his boy—a fine lad, ten years of age. The father and son were out in the brush, looking for a colt that had strayed off, and more than a rod apart, when suddenly a bear rushed upon the boy with terrible ferocity. The child had time to give out one wild, heart-freezing shriek of horror before the bear seized him. The father, drawing a large hunting-knife from its sheath, leaped to the rescue, and a horrible contest ensued. The bear was a powerful creature, and ferocious with hunger; but the father was fighting for his boy. Though much torn by the teeth and claws of the bear, he won the fight and succeeded in carrying his son home in his arms, where both were at last accounts, rapidly recovering from their wounds.

A LITTLE boy, five years old, was carried off by eagles while playing in the woods near Maynesville, Mo., not long since. His body was found shortly after, with nearly all the flesh picked from the bones.

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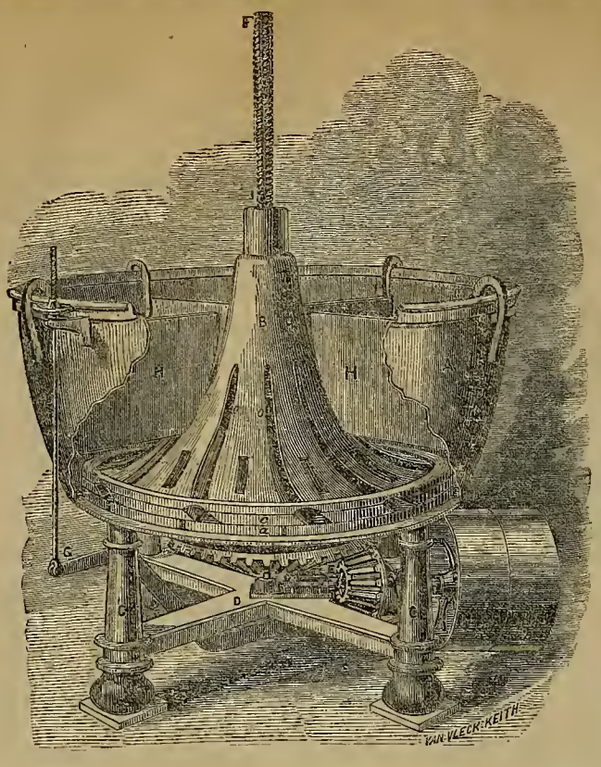

THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

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WHEELER & RANDALL, Inventors.

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Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. THE MINING AND SCIENTIFIC PRESS PATENT AGENCY has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

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THE PRESS is a large, sixteen-page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

He Foroot Something!—'What did your mother say, my little man? Did you give her my card?' asked an inexperienced young gentleman of a little boy whose mother had given him an invitation to call upon her, and her street door was accordiagly opened to his untimely summons by the urchin aforesaid.

'Yes, I gave it to her,' was tho reply, 'and sho said if you wasn't a nat'ral born fool you wouldn't come Monday aioraiug, when everybody was washing.'

At this juncture mamma, with a sweet smile of welcome, made her appearance at the entrance of the hall, when to her surpriso, Mr. Verysopht, the visitor, had bolted.

'What does the man mean?' inquired mamma.

'Dunno,' replied Bub; 'guess he's forgot sumthiu'.'

Removal.

The Office of the Mining and Scientific Press has been removed to the old printing stand known as Waters Bros. & Co., southwest corner of Clay and Sansome streets, opposite the Niantic Hotel (being one block south of our forme location), where we may now be found, with more commodious apartments and an extensive Job Printing Office.

San Francisco, April 10th, 1865.

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the Mining and Scientific Press. 19v11tf

BACK VOLUMES.

Back files of the Mining and Scientific Press, from January 1st, 1864, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

A Good Financial Weekly.

The Stockholder:

MONITOR OF FINANCE AND INDUSTRY,

Is published every Tuesday Morning,

At 72 William street, New York,

—GIVING—

Quotations of all important Bonds and Stock Securities in the United States; GOVERNMENT, STATE, CITY, BANK, INSURANCE, PETROLEUM, MINING, and other miscellaneous Joint-Stock Organizations, with the Financial Statements of the same; Notices of Payment of Interest and Dividends—

fact, all matters that can be of interest to Security-holders.

Its columns will be found replete with important and useful financial information.

The Quotations given are correct, and may be relied upon either for the purchase or sale of Bonds or Stocks.

The Stockholder is the *only strictly financial paper published in the United States.*

TERMS, FIVE DOLLARS PER YEAR.

All letters should be addressed,

GEO. M. NEWTON, Publisher,

5v12tf 72 William street, New York.

QUARTZ OPERATOR'S HAND BOOK

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,

Authors and Publishers.

Bound in Cloth—144 Pages, Duodecimo.

The Quartz Operator's Hand Book is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable Quartz Miner's Hand Book.

The Table of Contents of this book will be found on pa 415 of the Mining and Scientific Press of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for Book and Pamphlet Printing entrusted to the Mining and Scientific Press Job Office.

Machinery.

HUNTER'S PREMIUM CONCENTRATOR, AMALGAMATOR AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

Hunter's Concentrator can be seen in operation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; no trace of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest irregularity of speed the best of results were given.

5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see it to test the machine with.

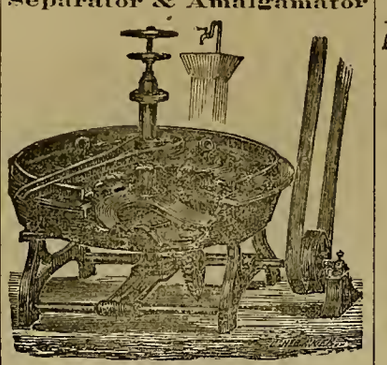
Give it a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,

Novelty Iron Works, Fremont st., San Francisco.

15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD S Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine Scientific Knowledge with Practical Experience, these Pans extract more gold and silver from their ores than any others in use, and a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in paris convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

BLAKE'S QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.

4v10

Hepburn & Peterson's AMALGAMATOR.

The Subscribers would call the attention of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phoenix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. [Illustrated in the Mining and Scientific Press, April 9th, 864.]

nov8 3m* HEPBURN & PETERSON.

McCOMB'S CUMULATIVE POWER PRESS AND ARROW TIE.

E. C McCOMB, Agent.

No. 1 Government House, cor. Sansome and Washington sts.

23v10 3m

LEFFEL'S American Double Turbine WATER WHEEL.

This Wheel, which has had the most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction whenever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require Write or send for circular to

KNAPP & GRANT,

—ALSO— San Francisco.

Leffel's Lever Jacks,

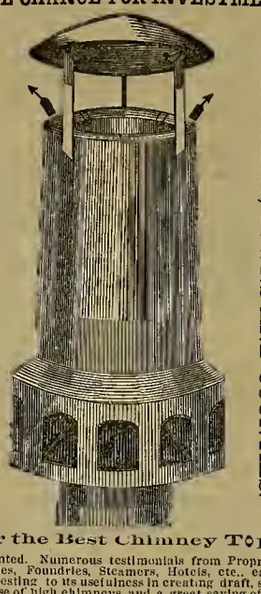
For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Truck Jacks of the most superior make and kind.

For sale by **KNAPP & GRANT,**

12v12-3m San Francisco,

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE



FOR STATES, TOWNS AND COUNTIES.

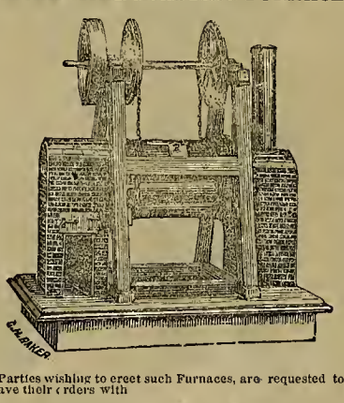
For the Best Chimney Top

Ever Invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel.

Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee. **B. A. HENRIKSEN,**

12v12-3m No. 328 Kearny street, San Francisco.

The Mechanics' Institute AWARDED A PREMIUM SILVER MEDAL TO BRUCKNER'S MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,

12v11 416 Market street, San Francisco.

Economy in Advertising.—The Mining and Scientific Press is the best and most economical mining advertising medium in this city. Our terms are less than one half the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The Press contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Volume Twelfth.—The Mining and Scientific Press, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

VARNEY'S PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the **PACIFIC FOUNDRY,**

1v1 San Francisco.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

Important to Miners.

NEW PATENT ROASTING PROCESS.

I am now prepared to offer to the mining community a New Roasting Process, which has been approved as novel and beneficial by the best authorities in Europe. A Furnace can be erected in a few days at a trifling expense, and one man is able to Roast ten tons of Ore or Concentrated Sulphurets per day,

MORE COMPLETELY AND CHEAPER

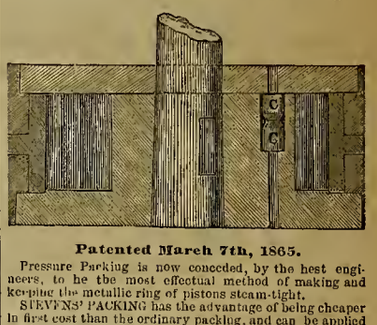
Than any other Process. All the Sulphur is saved, by being converted into Bisulphide of Carbon, which is a valuable product, and will pay nearly all expenses.

For particulars, apply to

J. MOSHEIMER,

26v11-3m 423 Washington street.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df **ANDREW STEVENS.**

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make.

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by **TREADWELL & CO.,**

3v12-3m Corner of Front and Market streets.

PETROLEUM STOVES.

A **MOST USEFUL INVENTION FOR ALL** manner of COOKING and for IRONING, without any litter, as ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Cooking by them is divested of its disagreeableness, and becomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,

Proprietors for California.

San Francisco, March 3d, 1866. 10-v12

FOR SALE A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to **HEYNEMANN & CO.,**

26v11tf 311 and 313 California street.

Works are erecting at Golden City, Colorado, for the manufactnre of railroad bars. Extensive mines of iron ore have been discovered there, which will be worked by Eastern capitalists, and promise to yield great wealth to the new State.

A formal visitor thns addressed a little girl: 'How are you, my dear?' 'Very well, I thank you,' she replied. The visitor then added: 'Now, my dear, you should ask me how I am.' The child simply and honestly replied: 'I don't want to know.'

An attempt was made on Tuesday night of last week to fire the Public School house at Princeton, Mariposa county. The combustible material placed against the bnilding, had charred down and failed to take hold.

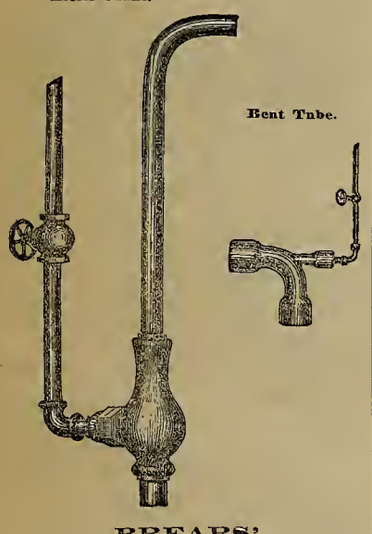
Constitution and By-Laws
— OF —
Mining and Prospecting Companies
Elegantly printed, with care and dispatch, at the office of the **Mining and Scientific Press.**
☞ Orders from the interior faithfully attended to.

STATIONERY AND PAPER
WAREHOUSE.

JOHN G. HODGE & CO.,
Nos. 418 nnd 420 Clay street, San Francisco,
IMPORTERS AND DEALERS IN
Sationery, Blank Books,
SCHOOL BOOKS & CHEAP PUBLICATIONS
Together with
Flat Cap, Folio Post, and Ledger Paper,
Envelope Paper, Colored Medium, etc.
WRAPPING PAPER, PAPER BAGS, Etc.

We keep a large stock of the above line of goods, which we offer to the trade at the lowest market rates.
Prompt nttention given to country orders.
☞ Blank Books manufactured to order. ☜
13v12 3m

TO PLACER MINERS AND OTHERS.
Little Giant.



BREARS'
Improved Steam Syphons.
STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE,
No. 320 Pine street.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 245 First street, San Francisco.
LIST OF PRICES:

Little Giant.		Bent Tube.	
Brass	$65	Iron, 4 in di	$100
Iron	50	" 3 in. di	75
		" 2 in. di	50
		" 1½ in. di	35
		Brass, 1 in. di	25

13-v12

Prater's Concentrator.
NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at
Devoe & Dinsmore's Machine and Iron Works,
SAN FRANCISCO.
☞ Machines constantly kept on hand, to snpply orders at the shortest notice.
Address: MORGAN HUNGERFORD,
10 v12 San Francisco, Cal.

Furnished Room to Let,
ON MASON, BETWEEN CLAY AND Washington streets, overlooking the Bay. ☞ Inquire at this office. 11-v12

Act Approved, March 26, 1866.
THE
NEW MINING LAW
GIVES AMPLE TIME AND RENDERS
ADVERTISING IN A WEEKLY PAPER
LEGAL AND MOST CONVENIENT,
REDUCING THE COST TO
Half the Price of Daily Publication.

PATRONIZE YOUR OWN INTERESTS, AND ASSIST THOSE WHO SERVE YOUR SPECIAL CAUSE, BY ADVERTISING IN THE
MINING AND SCIENTIFIC PRESS.

☞ The new "Act concerning Assessments of Corporations" (Senator Robinson's bill), having been approved hy the Governor, is now a LAW; and Secretaries, Trustees, and Corporations throughout the State will do well to govern themselves accordingly. The new law offers plenty of time for advertising, rendering it perfectly convenient in weekly papers, both in the city and interior. COPIES OF THE NEW LAW, and suitable blanks for advertising, will be sent by mail or furnished gratuitously at the office of the MINING AND SCIENTIFIC PRESS, together with any advice or information desired, within our reach, concerning the provisions of the Act. We respectfully ask the influence of those concerned in legitimate mining interests to

CONSOLIDATE

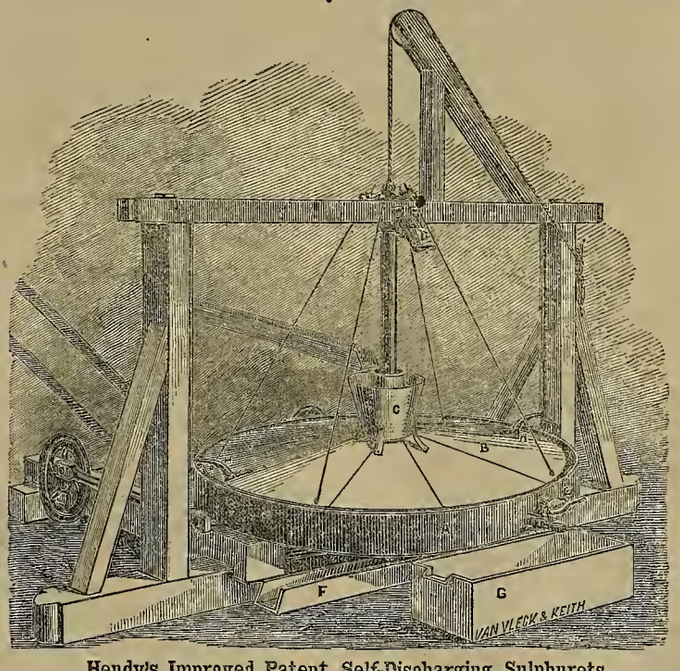
The Mining Advertising of this city in the MINING AND SCIENTIFIC PRESS, a thorough, independent MINING journal, and the only medium in which all Mining Advertisements can be concentrated. It will save money in the treasuries of corporations. It will prove convenient to share holders to be able to examine WEEKLY, in a SINGLE PAPER, all mining notices and appointments in San Francisco. Justice to our paper demands such patronage. The pecuniary interests of shareholders and the mining public point directly to our enterprise. Remember these facts. Consider them at your meetings. The PRESS is issued EVERY SATURDAY.

RATES OF ADVERTISING.

	IF PAID IN ADVANCE.	
Per square (space of ten lines agate advertising type) one week	$1 50	$1 00
Per square, two weeks	2 50	2 00
Per square, three weeks	$3 50	$2 50
Per square, four weeks	4 00	3 00
Assessment Notice (of usual length)	7 00	5 00

DEWEY & CO.,
Publishers of the Mining and Scientific Press, Patent Agents, Book and Job Printers,
505 CLAY STREET, SAN FRANCISCO.

NOTICE TO QUARTZ MINERS.



Hendy's Improved Patent Self-Discharging Sulphurets
PRATER CONCENTRATOR
Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:
STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " "
U. S. REESE RIVER MILL, Austin, " "
CARROL & ASPINWALL MILL, Reese River, Nevada.
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
BLUE LEDGE MILL, near Spanish Flat, El Dorado Co.
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.
As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:
One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 13 First Street, San Francisco.
☞ For explanation of the above engraving, and other particulars, send for a Circular.
JOSHUA HENDY,
8v12tf No. 402 Montgomery street, Room 3, 4th floor.

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SCIENTIFIC BOOKS.
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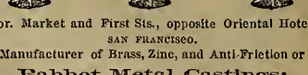
Booksellers and Stationers,
8v12 San Francisco, Cal.

W. T. GARRATT,
City
BRASS AND BELL FOUNDER



Cor. Market and First Sts., opposite Oriental Hotel, SAN FRANCISCO.
Manufacturer of Brass, Zinc, and Anti-Friction or
Babbet Metal Castings;
CHURCH AND STEAMBOAT
BELLS,
TAVERN AND HAND BELLS AND GONGS,
FIRE ENGINES, FORCE AND LIFT PUMPS,
Steam, Liquor, Soda Oil, Water and Flange Cocks, and Valves of all descriptions, made and repaired. Hose and all other Joints, Spelter, Solder, and Copper Rivets, &c. Gauge Cocks, Cylinder Cocks, Oil Globes, Steam Whistles,
HYDRAULIC PIPES AND NOZZLES
For Mining purposes, Iron Steam Pipe furnished with Fittings, &c. Coupling Joints of all sizes. Particular attention paid to Distillery Work. Manufacturer of "Garratt's Patent Improved Journal Metal."
☞ Highest Market price paid for OLD BELLS, COPPER AND BRASS. ☜ 6tf

Pacific Map Depot.
A. GENSOUL,
PUBLISHER, IMPORTER AND DEALER IN
MAPS, ATLASES,
Charts. Guide-Books. Globes,
Books, Stationery, and Fancy Articles,
511 Montgomery street, between Commercial and Sacramento, San Francisco.
Agents and Dealers supplied on Liberal Terms.
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1st Premium, at Sacramento Fair.....1862
1st Premium, at S. F. Bay District....1862
1st Premium at Sacramento.....1863
1st Premium, at San Francisco.....1864
1st Premium, for Cordials.....1864
1st Premium, for Hygienic Bitters....1864
Awarded to
V. SQUARZA.

Pacific Mail Steamship Co's
THROUGH LINE TO NEW YORK,
Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M., on the **10th, 19th,** and **30th** of every month (except when those dates fall on Sunday, and then on Saturday preceding) for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.
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Third Edition revised and enlarged.
Compiled by H. B. CONGDON.
THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete; Digest of Decisions of the Supreme Court forms etc. 16 mo. flexible cloth, 192 pp. $2.50.
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Twelfth Volume.—The Mining and Scientific Press, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

AND SCIENTIFIC

Mining Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors.

SAN FRANCISCO, SATURDAY, APRIL 7, 1866.

VOLUME XII. Number 14.

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Patent Agency and Job Printing Office, 505 Clay street, San Francisco. April 1, 1866.

Judicious Resolutions.

Several of our most substantial and judiciously managed mining corporations have passed resolutions, since the approval of the new assessment law, requiring all notice of assessments and sales to be published in the MINING AND SCIENTIFIC PRESS, the only thorough (daily or weekly) mining journal on this coast. Our efforts to concentrate all mining advertisements in one paper, for the economical convenience of shareholders and assessment payers, are meeting with decided success. Those who believe in supporting the mining cause, should bear our paper in mind, and bring up this subject at the next trustees or shareholders' meeting.

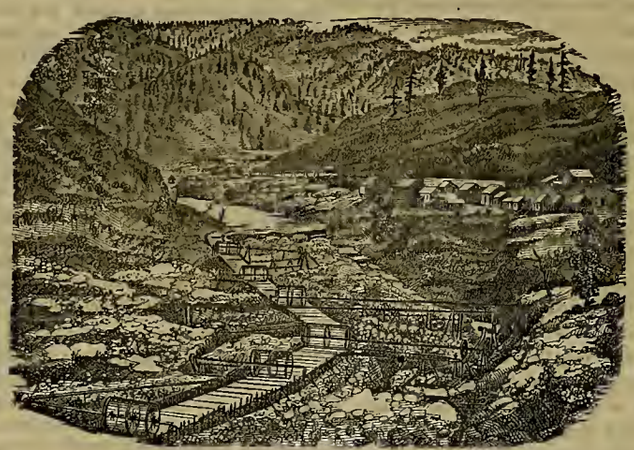
PIG IRON.—From the *Iron Age*, of March 8th, we learn that the total production of pig iron in the United States, according to statements made at the quarterly meeting of the American Iron and Steel Association, held at Washington, D. C., Feb. 27th, 1866, was in 1865, 910,555 tons; while in 1864, it was 1,130,280 tons; thus showing a decrease in one year of 219,725 tons. There was also, at the same time, a large decrease in the production of steel.

NEW TYPE.—The *Daily Alta*, of this city, has come out in new type, which makes a handsome print.

CALIFORNIA RIVER MINING.

The annexed engraving represents one of a peculiar class of mining scenes, often met with in the Summer season, in the mountains of California. This kind of mining is called a "fluming operation," and is conducted in the following manner:

During the season of low water in the rivers, which usually lasts from July to November, the miners, in order to work the bed of a stream, build a dam at some convenient point; and from that dam construct of boards, a flume capable of carrying all the water then in the river, over so much of the river bed as they propose to work during the Summer. The dam being made tight, and the water let into the flume, the bed of the stream is laid bare for the convenient operations of the miner. These flumes are constructed of common unplaned inch boards, properly secured by frame



work and sustained by supports. They vary in size according to the amount of water which they are expected to carry. At intervals along this flume, are generally placed what are called "stream wheels"—that is, water-wheels made like steamboat wheels. When the paddles or floats of these wheels are dropped down into the current of water passing through the flume, they are made to revolve by the action of the current, and so revolving are capable of driving the pumps required to remove the seepage water from the excavations which the miner makes in obtaining his auriferous sands from the river bed.

By examining the picture, the reader will observe that the wheels are constructed with long axles, extending from the wheel in the flume quite to the opposite side of the now dry bed of the stream. Attached to these axles, and generally near their outer extremity, small pulleys will be observed, over which are made to pass the belts of chain pumps, a peculiar class of pumps generally used in freeing placer mines from water, and constructed of a succession of buckets attached to a belt of India rubber or canvas. Pumps worked by valves could not be used for such a purpose, because they would soon be choked up by the gravel, and rendered useless; while the chain pump readily brings up the gravel that may be mixed with the water.

The course of the stream, represented in our engraving, may be easily traced winding around among the hills. The white spot near the centre of the picture is the pond formed by the dam, from which the water may be seen running through the flume, quite to the foreground and driving, in its course, no less than six different wheels.

By the aid of the pumps driven by these wheels, the miners are able to sink holes down through the gravel and boulders quite to the bed-rock of the river, near and upon which the chief part of the gold is usually found. The river beds in this way are worked over and over again, year after year. Of late years, however, the most of this kind of work is done by Chinamen, who are satisfied to labor for very small pay. Such "diggings" will not, in many places, pay enough to induce Americans to engage in them.

The gravel in the beds of the rivers, is often found 15, 20 and 30 feet in depth. It is deeper toward the mouths of the rivers, where the stream is less swift, than nearer their source, where the water runs so rapid as to wash nearly everything away.

We often read about the "bars" on the streams, where large amounts of gold are taken out from the gravel. These bars are quite different from the bars which we read of as obstructing the mouths of rivers, often rendering it very difficult for vessels to enter. These last mentioned bars usually extend quite across the stream, and are generally covered with water. They are properly so called, because they extend across from bank to bank, as bars in a fence extend from post to post. In both cases these bars are deposits of sand formed by opposing currents, eddies, etc.; but those deposits which the miner usually calls a bar, is an accumulation of sand on the bank of a river, which is submerged at high water; but which is always bare at low water, so that at such times they can be worked without fluming. The term 'bar' in this case is misapplied; but long and general usage compels us to accept it.

These latter bars on the mountain streams of California, have usually been found immense sources of wealth. From some of them, millions of dollars' worth of gold have been worked out. When such a bar is found, great numbers of miners usually flock thither, and sometimes quite a town is built up close by.

The locality represented in the engraving appears to have been such a place; and after the bar was worked out, the river was flumed to get the gold from the bed of the stream, which is almost always rich directly opposite or just below a bar. You will see that quite a little town has grown up, on the high ground just above the bar. Such settlements were formerly very common all along the larger streams throughout the mountains.

PATENT ROPE HOSE COVERING.—In our advertising columns will be seen an illustration of this useful invention. We understand that orders from the interior for this article are increasing, and that where used, its character for utility is well sustained.

New California Patents.

Mr. John Mott's application for letters patent for a revolving plow, through the agency of the MINING AND SCIENTIFIC PRESS, has been allowed. Two applications for improvements on this valuable invention by the patentee are now pending through our agency.

Mr. John Evans, of Virginia City, has received notice that his application for letters patent for improvement in safety cages for hoisting in mines, has been allowed through the agency of this office. The following patents have also recently been issued:

QUARTZ CRUSHER.—John Fleck, Santa Cruz, California: First I claim the two jaws, A A, provided with two upper inclined parts, a a, and lower vertical parts, b b, in connection with oscillating frame or walking beam, B, and frames, F F, all arranged to operate in the manner substantially as and for the purpose set forth.

Second, I further claim the combination of the jaws, A A, oscillating frame, B, and the wheels, f f, for securing the upper ends of the jaws in the frame as herein specified.

This invention relates to a new and improved machine for crushing quartz, and it consists in the employment or use of two jaws arranged to operate with a reciprocating motion.

GOLD AND SILVER WASHING APPARATUS. Joshua Hendy, San Francisco, California: I claim, First, the guide fingers, T T, attached to distributor, G, working in slides, V V, or their equivalent.

Second, The riffle bars, R R, coated with mercury, for the purpose as herein set forth.

Third, I claim the riffle bars, R R, guide fingers, T T, and slides, U U, in combination with distributor, G, and pan, B, with convex bottom, and central outlets, e e, substantially as described and for the uses and purposes as hereinbefore set forth.

MECHANICS' INSTITUTE.—We understand that the work of grading the lot for the new building on Post street, has already been commenced. Notice of an important meeting has been issued as follows:

To the Stockholders of the Mechanics' Institute of the city of San Francisco:—There will be a special meeting of the stockholders of the Mechanics' Institute of the city of San Francisco, at the Rooms of the Institute, 529 California street, city and county of San Francisco, on Friday evening, April 20, 1866, at 7½ o'clock. The object of this meeting is to consider the propriety of authorizing and empowering the President and Board of Directors of said Mechanics' Institute of the city of San Francisco, to sell the lot and building now owned and occupied by the Institute, on California street, and to make a good and sufficient deed of the same, and to transact such other business as may come properly before the meeting. H. J. BOOTH, President.

J. B. PIERCE, Recording Secretary.

OUR PAPER IN NEW YORK.—Our agent, Mr. George M. Newton, 72 William street, New York, is forwarding a goodly number of Gotham subscribers to the MINING AND SCIENTIFIC PRESS by every steamer. Many of the names are highly appreciated on our list beyond the matter of pecuniary support.

TRIUNFO.—We understand that Eastern capital has been secured to this company. A large order has been already given to the Pacific Iron Works in this city for additional stamps and other machinery for the mill of the company, located in Lower California. We are without further particulars.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

BY W. A. GOODYEAR.

[CONTINUED FROM PAGE 194.]

Let us now compare the different results we have obtained.

In doing so, I shall assume that in all cases the exterior radius of the plates is a, and their inner radius $\frac{a}{3}$ (which are the dimensions given on page 112 of the Hand Book, for the combination called "Randall's Patent Grinding Plates,") and that the vertical pressure at the outer circumference of the plates while in motion is P. I have already found the grinding effect of Randall's Plates under this supposition in a single revolution, which is

$$(77) \qquad \frac{13}{9}\,\pi^2\,P\,a^2.$$

For circular plates of uniform hardness, we have

$$(78)\int_{\frac{a}{3}}^{a} 4\,\pi^2\,P\,ay\,dy = \frac{16}{9}\,\pi^2\,P\,a^3.$$

For plane circular plates whose hardness varies as y,

$$(79)\int_{\frac{a}{3}}^{a} 4\,\pi^2\,P\,y^2\,dy = \frac{104}{81}\,\pi^2\,P\,a^3.$$

For conical plates of uniform hardness.

$$(80)\int_{\frac{a}{3}}^{a} 4\,\pi^2\,P\,ay\,dy = \frac{16}{9}\,\pi^2\,P\,a^3.$$

For tractory conoidal plates of uniform hardness.

$$(81)\int_{\frac{a}{3}}^{a} 4\,\pi^2\,P\,ay\,dy = \frac{16}{9}\,\pi^2\,P\,a^3.$$

Expressing the fractions in the above results as decimals, we have—

From (77).....1,444 π^2 P a^3.
From (78).....1,778 π^2 P a^3.
From (79).....1,284 π^2 P a^3.
From (80).....1,778 π^2 P a^3.
From (81).....1,778 π^2 P a^3.

Hence, we see that with plates of the same size, and having the same vertical pressure at their outer circumference while in motion, the plane circular plates, the conical plates, and the tractory conoidal plates, if they are all of uniform and equal hardness, give the same grinding effect in a single revolution. "Randall's Plates" give less than these, and plane circular plates, whose hardness varies as the radius give the least of all for the same amount of motion.

But it is important to observe that in order that the plates of uniform hardness should have the same pressure *at the circumference* as plates whose hardness varies as the radius, it is necessary that in the former case the plates themselves should be heavier than in the latter, since in the first case the pressure *increases* from the circumferenee towards the center, while in the latter it is constant.

With the increased weight of the plates under these conditions, is connected of necessity an increase in the *power* required to drive them at an equal speed; and, moreover, this *increase* in the power required, corresponds precisely in amount with the increase in the grinding effect produced.

It is evident, from what precedes, that although tractory conoidal plates do, in fact, possess the property of constant wear parallel with the axis of revolution, this property is *not* the result of their peculiar form, and they possess it *in common* with all the forms above considered.

I will make hut a single reference more to the "Quartz Operator's Hand Book."

The *analytical* discussion which it contains of the tractory curve alone is, I believe, correct as far as it goes, except for the numerous misprints, which are not, however, the fault of the author.

The grinding effect of tractory conoidal plates, and also of plane circular plates, whose hardness varies as the radius, is correctly given on page 107. The effect of plane circular plates of uniform hardness is incorrectly obtained on page 108, owing to an error in the assumption connected with what is there called the "tendency to wear." The result for conical plates on page 110 is incorrect for a similar reason. The result for circular plates of varying hardness on page 111 is incorrect, hy reason of a palpahle mistake in substituting the value of y iu the integral which gives it. The result for circular plates of uniform hardness, given on page 112, is necessarily incorrect, the integral from which it is obtained being incorrect. The result for conical plates upon the same page is incorrect for a similar reason. The latter part of the diseussion of Randall's Plates on page 113, I confess my total inability to understand. The result, however, is wrong.

In the preceding discussion I have supposed the plates to simply grind *each other;* but the same reasoning and the same results hold good if we suppose a layer of other material interposed between them, provided only that this layer be of *uniform thickness.*

The results which I have ohtained show that, in a theoretical point of view, not only do the tractory conoidal plates *possess no advantages* over plane circular ones, so far as their grinding effect is eoncerned, but also, that if we take into account the *power* required to drive the plates (which we must do in order to obtain a just eomparison), *none* of the forms considered possess any advantages ahove any of the others in their theoretical grinding effect.

I have thus far discussed the subject from a *purely* theoretical point of view, supposing the conditions of hardness, distribution of pressure, etc., to he *perfect.* If, now, as is undoubtedly the case, it is found in practice that grinding plates often wear *unequally,* this circumstance is due either to inequalities in the hardness of the opposing surfaces, which, to a eertain extent, are unavoidable, or to circumstances connected with the feed and discharge, and the varied arrangements in other respects of different pans, which may interfere with the uniform distrihution of ore hetween the plates, or otherwise change the conditions of the prohlem.

W. A. GOODYEAR,
Civ. and Min. Eng.

San Francisco, January 26, 1866.

[Conclusion.]

WELL GUARDED.—The vaults of the Bank of France, which contains more treasure than any other single spot on the face of the globe, are accessible through an iron door, which has three keys, and these keys are kept by three leading officers. The iron staircase which leads to the vault can he detached, and, hy a chemical apparatus, a supply of deadly gas can be made to penetrate every part, destroying human life in a few seconds, while the whole vault can be submerged in ten minutes.

'WHAT are you doing?' said a father to his son, who was tinkering an old watch. 'Improving my time,' was the rejoiader.

THE longest railroad in the world is the Grank Trunk of Canada—from Detroit to Portland—837 miles.

[Written for the Mining and Scientific Press.]

From Calaveras County.

[BY OUR SPECIAL CORRESPONDENT.]

In a letter from Mokelumne Hill, written several weeks since, I promised to give some account of the prospects of quartz miaing in that section, hut circumstances having prevented my doing so during my stay at that place, I take advantage of a rainy day, though in a distant part of the county, to give you a synopsis of a few hriet notes on the subject taken while at that place. The principal claim in the immediate vicinity of the "Hill" is

THE SPRING OULCH LEAD,

Sitnated one and a half miles southeast of the town. It is in a slate formation, and its general direction is about north and south, dipping eastward at an angle of forty degrees. A shaft has heeu sunk to a depth of sixty feet, by tbe owners, Messrs. Lamphear, Morris and some other residents of Mokelumne Hill, and develops a fine, regular vein lour feet in thickness, tbe quartz Irom which prospects well. An overshot wheel forty feet in diameter, and capable of driving a 10-stamp mill, has been erected, and two large arastras put in operation, for the purpose of tcsting the rock, prepartory to putting in stamps. Ths arastras are each fourteen feet in diameter, and capable of working two tons of quartz daily. No clean up had been made at the time of my visit, but Judge Morris, who was in charge of the mill, estimated by the amount of quicksilver used, that tbe rock would yield tweaty-five dollars per ton.

I am indebted to Mr. R. W. Dowling for information concerning a quartz vein being prospected by a company of citizens, among whom are Messrs. Paul, Smith, Peck, and many others well known in the "Hill." The lead has been opeaed for a distance of seventy feet, hy a tunnel in the hillside. It appears to be about ten feet iu width, and the rock prospects well, though no large quantities have been worked. It is located in a slate formatiou, and lies in a north and south direction, with a dip of thirty-five degrees to the eastward. As it is within a mile of the town, it will, if successful, prove a great benefit to business iu the place. There are several other veins in ths immediats vicinity which have been opened with very good prospects, but on which, from some cause, work is at present suspended. Another mine, the successful development of which will bave a highly advantageous influence upon business at Mokelumne Hill, is

THE FOOTE AND THOMPSON,

Sitaated at Rich Gulch, about five miles distaat. This miae, of which a history was published in the PRESS over a year since, was worked by the former owners to a depth of 200 feet, and yielded over $200,000, but had been abandoned for some years, when it came into the possession of Messrs. Hephura of Drytown, aad Chapman of Copperopolis, who conveyed one-half of the claim to Messrs. O'Neil & Gleason, oa condition that they should complete a tunnel which had been commenced by the former owners, to open the mine 140 feet below the old works. This tunnel was in 120 feet, but had not struck the vein, when it had beeu abandoned. At the end of 250 feet, the ledge was struck where it is about eighteen inches in width, but which widens to three or four leet in a short distance. The tunnel is wholly in the quartz for a distance of 125 feet, wheu it leaves the veiu and runs in the hanging wall, which is of soft slate, laying bare the west side of the vein for a distance of 100 feet. It then cuts through the lead, when it is found to he six feet thick. Forty or fifty feet further in the vein "runs out," and there is no quartz for about twenty feet, after which it comes in about four feet wide, aad continues to improve to the end of the tunnel, where its width is six feet. The length of the tunnel is 820 feet, and the average width of the vein throughout that distance is three and a half feet. The body of the vein is of solid white quartz sprinkled with sulphurets, alternating with talcose schist, aad a reddish "shaly" quartz full of oxide of iron, and said to be very rich in gold. Five tons of the solid quartz, worked in a stamp mill, everything about which was entirely new, paid $7.50 per ton in free gold, no attempt being made to save that in the sulpburets. At the time of the completion of the tunnel, negotiations were commenced for ths erection of a mill, when it was found that Mr. Root of Woodbridge held a trust deed from the former owners, for three-eights of the mine as a security for the payment of claims which he holds against them. This discovery so complicated matters that work oa the mine was stopped, and it has remained in *statu quo* for several months. It is now believed that the owners of the mine will be able to compromise with Mr. Root, and carry on their work during tbe comiag summer, or sell the mine to some one who will.

Since leaviag Mokelumae Hill, I have made a tour through the copper mining region of Amador county, notice of which I shall for the present omit, but of which I hope to give a description in aaother letter in connection with one of the priacipal miaes of this place. For the present I will coafine myself to a notice of the gold miaes encountered siace my last. Of these the most singular are those located on

THE TALC LEDGES

Of Mt. Echo district, Amador county, between Ione City and Sutter. The gold is found in veins of pure talc, of which there are three, which have been traced for a considerable distance, and claimed. They run in a nortb-westerly and southeasterly direction, and are from four to twelve feet wide on the surface, though they have not been opened to a sufficient depth to test their permaaency. The principal claims are the Yosemite of 1,400 feet, and the Mt. Echo of 1,600 feet, owned principally, if not entirely by residents in the immediate neighborhood. The former is managed by Dr. Briak, and the latter by Mr. C. B. Strong of Ione Valley. The best prospected of these is the Yosemite, on which a vertical shaft has beea sunk to a depth of forty feet, and a cross cut run a distaace of twelve feet, without comiag to the walls of the vein. In the center of the shaft is a singular stratum of crystalized carbonate of magaesia, about eight incbes thick, and of great beauty and purity. Dr. B. informs me that he sent 2.500 pounds of his rock to Manning's mill at Sutter, which paid $36.25 per toa. Much of the rock shows free gold, aad some specimens contain it in large quantities. A box of specimens from this vein were sent by express to the office of the PRESS by Dr. Brink, together with a history and description of talc mining in Amador county, which he fears did not reach their destination, as he has not heard from them since. [Specimens noticed last week.]

The Mt. Echo is situated about a mile northwest of the Yosemite. It has been opened to a depth of twenty feet, on a spur west of the main lead. Eight pounds of the rock from this shaft, ground in a coffee mill, paid at the rate of $55 per ton. These ledges show every prospect of heiag rich and permaneat, while their large size, and the soft and yielding character of the rock makes them easy and economical mining. They will doubtless prove a highly profitable investment, should their size aad productiveness continue according to present prospects.

After visiting these claims I proceeded, the same afternoon to Jackson, from whence on the following morning I went, in company with Messrs. Allen and Andrews of Jackson, and my former friend and traveling companion, Mr. Fenton, now located at Jackson, to visit the claim of the Clinton mining company, six miles above. The lode was formerly worked by Mexicans, who have at times struck very rich pockets. The most singular feature of the croppings of the ledge is the large amount of metallic iron they contain; more than I have ever seen in any other veia of this character. The owners are running a tunnel in the hillside under the croppings, which at the time of my visit was in a distance of 138 feet, hut had not yet cut any well defined vein. The placers in the gulch below were quite rich. A few weeks since a piece of gold weighing ten ounces was picked up. We diaed with Judge Robinson, one of the owners of the miae, and returned in the evening in high spirits to Jackson.

After our return, I set out for Mokelumae Hill, accompanied by Mr. Fenton as far as

SPANISH GULCH,

Three and a half miles south of Jackson, near the Mokelumne river. Here Mr. F. is engaged in prospecting a claim with a view to purchasing it should it prove valuable. It now belongs to a Mexican lady by the name of Samiento, who has entered into a contract to sell the mine to Mr. F. should he see fit to make the purchase. It is believed to be a continuation of the same vein on which the mines of Sutter and Amador are located, as the formation of the country, and the direction and dip of the vein are quite similar. The mine has been worked at intervals for four years, and opened to a depth of 120 feet, and about the same distance along the vein. Within that time it is said to have paid its Mexican owners from $20,000 to $40,000 in arastras. Besides the free gold, the rock contains large quantities of rich sulphurets, which by roasting and washing in a horn in the usual way, show a large prospect in fine gold. The old works

having filled with water, Mr. F. has proceeded to sink a new shaft at a distance of something like 200 feet north of the old one, at a point where one had been commenced some years since, and abandoned. They had reached a depth of over forty feet, and while I was there struck the first quartz, which, from its resemblance to that lying about the old works, in all probability comes from the main ledge. Mr. F. is acting in this matter, as the agent of a corporation, formed of prominent New York capitalists, and in which he is himself a large shareholder. He goes at his work in earnest, and is certainly deserving of success. Adjoining this claim on the south is another, owned by residents of Mokelumne Hill, which is being opened with very fair prospects. Mr. Gleason of the latter place was there engaged in running a tunnel on this claim, and as the sun declined in the west, we mounted and together made our way to the "Hill." Best of friends and most genial of companions, good-bye, assured that while memory calls up the names of friends whose companionship I have learned to value, that of Fenton will never be forgotten by

D.

Copperopolis, March 21, 1866.

[Written for the Mining and Scientific Press.]

From El Dorado County.

[BY OUR TRAVELING CORRESPONDENT.]

Messrs. Editors:—After ten days of delightful weather, a cold storm of mingled snow and rain has set in, and as no prospecting can be done to-day, I redeem the promise I made you a few days ago from this place, which (although not so now) has been, and doubtless will be at no distant day, one of the most productive mineral districts of the State.

AT SPANISH DRY DIGGINGS,

Five miles northwest of this place, I had the pleasure of examining the Grit claim, one of the oldest and richest in this part of the county, and also of seeing the identical spot from which the sixteen-pound nugget was taken, which you may have seen at the last State Fair. (I should like to have the money it sold for in New York.) I was informed by Mr. Davis, one of the owners of this claim, that it had yielded large amounts in gold during the last ten years, insuring from $2,000 to $40,000 per annum.

The richest deposits are found in a rotten or decomposed quartz, in much larger masses than any hitherto seen, and also in the crevices of the bed-rock—a species of slate—to which are often seen clinging tiny spangles of gold glittering like little stars in the shadows of the wall. The quartz, except the more solid and richer pieces reserved for the mortar, together with clay and decayed bed-rock, is passed through sluices in the ordinary way.

As sulphurets of iron abound here, some of which I know to contain gold, and as much of the quartz has not undergone sufficient decomposition to set the gold free—much of the clay also being of that sticky, dough-like character, so well calculated to hold the mineral and even to collect it—I should expect soon to find a notice of some prospector claiming the sixteen-pound extension on the tailings. It will pay.

Where this company are now at work there appears to be what miners on the Comstock would call a chimney of a ledge, which may become well defined at a few hundred feet depth. The distance now from wall to wall, if such they may be called, is one hundred feet or more—the space within being broken up with quartz, clay, and bed-rock thrown confusedly together as if Nature had forgotten that "order was her first law." But even here, in what seems "confusion worse confounded," there is a law which, when rightly interpreted, will prove of more value, financially, than *poor laws* or protective tariffs. Yet, men are daily met too wise to learn; while a single branch of mining—say, for instance, the best mode of working our sulphurets—could occupy the lifetime of the wisest, without being fully mastered. Although not given to prophesy, it requires no seer's vision to read the signs of a highly remunerative future opening up to the miner, and one as enduring as the rocks on which the golden letters are everywhere imprinted.

SLYGER & CO.

Have a quartz claim of 300 feet on Mosquito Point, four miles northerly from Greenwood, and one and a half from the Grit claim, with an incline of forty five feet following the lode which is from four to five feet in width, with a pay vein of twelve inches, out of which they took in one month $1,600, and not long since, in one week, fifty-two ounces, simply with a common hand-mortar. They have run also a tunnel of fifty feet along the ledge south, commencing at a point where it cropped out in a ravine, and taken out in the same manner from $400 to $500 in a short time. They have in this way, with two men, within one year realized out of their little claim upwards of $6,000, and have about 150 tons of quartz on their dump ready for crushing, which very much resembles the rock at Gold Hill, Nevada, in color, texture and general character, and far surpasses in respect to the amount of gold to be seen with the naked eye. My friend Slyger, as if to tantalize me, showed me a box of beautiful specimens, assorted for the mortar; I felt almost sorry they were about to be turned into twenties. The miser prefers art; give me nature.

I had almost forgotten to mention that there is a good mill-site convenient to the mine, with any quantity of wood and water that could be desired. Climbing up some 300 feet above, you reach the hydraulic claim of Davis & Co., which I must pass with a single remark, viz. $12,000 were taken out last season, in four months. I should also, if time permitted, say something of the lava beds around Georgetown, giving some account of the vegetation buried sometimes more than 100 feet beneath them, of the underlying gold deposits, which would be of some interest, perhaps, to the botanist, geologist and mineralogist, but I find myself even compelled to suppress notes as to Georgia Slide, Bottle Hill and other important points for want of space.

About two and a half miles northeast of town, on the trail leading to Volcanoville, I visited the claim of

THE CLIPPER GOLD AND SILVER MINING COMPANY,

In length 3,000 feet, and running in a northerly course. The ledge, as seen at the mouth of one of their inclines, is well defined, being about three feet from wall to wall, and having a pitch to the east of 40° from a perpendicular. Gold could be seen without the aid of the glass in some of the quartz from the dump, and the pay vein, as I learned from Mr. Sornberger, the Superintendent, is at least twenty inches wide.

Three shafts have been sunk to water level, each seventy feet or thereabouts, and two inclines have been run, following the lode to about the same level, where water was again reached, and the work stopped for want of means to purchase machinery for hoisting. Some $10,000 were taken out of the mine before reaching water, a large portion of which has been expended for labor and in the erection of a 10-stamp mill. It paid $15 per ton. This yield would probably have been much greater, had pans been used instead of copper-plates, as a considerable quantity of gold was afterwards found in the tailing. If it does not pass into the hands of New York capitalists prior to the 1st of June next, the company will secure an engine and resume work.

VOLCANOVILLE

Also has its quartz ledges, only one of which can now be described. It is situated in Quartz Cañon, divided into three claims of 4,800 feet each, known as the Yellow Jacket, Josephine and Confidence. It is from four to sixteen feet in width, and as it is one of the historical ledges of the country, having been noticed, I believe, by Prof. Blake as early as 1850, I shall be as brief as possible. The original discoverer, I understand, at that time obtained from it in one month $10,000. In 1855 it was again worked by Mr. Jos. Nouges and the late Col. E. D. Baker, at which time it yielded handsomely as to amount, but did not prove profitable to its owners, in consequence of the high price of labor and want of experience in the reduction of ores, and in the different methods of working. Mr. Nouges, in conjunction with Mr. Jos. Trench of Gold Hill, Nevada, now has charge, and is running a tunnel, following the ledge, and taking out quartz which looks well, with gold visible in much of it to the naked eye, and so flattering are the prospects to the present owners, that they are saving the rock, and making preparations to erect a 10-stamp mill without delay.

THE WOODSIDE CLAIM,

Located in the center of Georgetown, is perhaps attracting more attention now, and deservedly too, than any in the county, on account of the owners having recently struck exceedingly rich ore; there is no mistaking it. If the gold had been coarse, I should have had my doubts, (I have been deceived more than once); but on the contrary, it is, most of it at least, very fine and well diffused, through a lively blue quartz mixed with sulphurets, a specimen of which Mr. M. A. Woodside will send you, and out of which $100 were yesterday pounded. The above named gentleman in March, 1863, found some quartz, which proved to be a spur, on being followed twenty feet from west to east and having a shaft at that point put down forty feet, he struck the main ledge, bearing northerly. Out of this shaft, afterwards sunk eight feet deeper, $3,000 were obtained, which must have yielded largely to the ton, as the lead, where I saw it, cannot be more than two or three feet wide. This was in an incline since run 133 feet, intersecting this same shaft, and entered thereafter some seventy feet further. The company have put up a 5-stamp mill and laid down on the side of their incline a force pump of 6-inch bore, which getting out of working order, put a stop to the work for some months. They resumed operations last January, have now some sixty or seventy tons of first class ore ready for the stamps, and soon, as we have every reason to believe, their efforts will meet a rich reward.

If this company is successful (and there is scarcely room for doubt), a new impulse will be given to quartz mining in all this region—*the thing* most needed—as few, if any claims can be called prospected. As new developments are made from time to time, the community will awake to the realization of the wealth over which they have so long slumbered, and the streets of this place will once more be thronged with busy crowds as in other days.

Hoping this and much more for your numerous friends here, I remain as ever, your faithful

Prospector.

Georgetown, March, 1866.

[Written for the Mining and Scientific Press.]

More About Sodium Amalgam.

Messrs. Editors:—Much has been said, and many experiments have been made, by myself and others, in amalgamating with sodium. In the course of these experiments I had brought to my knowledge, by Prof. Filmer, a celebrated electrotyper, a fact (the results of which I had long known and acted upon, but never before was aware of the cause) that I take pleasure in communicating, hoping that it may be of the same benefit to my fellow miners that it has been to myself, viz: That all polished metallic powders, or bright metallic surfaces, are coated so intimately with (so to speak) infinitely fine particles of air, that it is very difficult to wet them; and in the case of metallic powders, such as bronze or fine bright gold, almost impossible to settle them in water, for the reason given above; and in the case of the latter, if it is not wet it is not easily amalgamated. Potash or a caustic alkali has been found to remove this difficulty, and allow the powders to precipitate, and bright metallic surfaces to be wet. Take, for instance, bronze powder and put it in a glass partly filled with water, it will be found almost impossible, if not entirely so, to wet and precipitate it. Now add a solution of caustic potash and the difficulty is removed. The same will be the effect on a polished steel blade.

I have found in working sulphurated ores on a large scale an almost identical result, whether using sodium amalgem or caustic alkali, in both cases finding not only the bright sulphurets amalgamated, but also the pan on parts where there was any trituration.

What is the result of exposing sodium to the action of water? Certainly a strong alkaline liquid from the hydrate of protoxide of sodium, or soda, that is dissolved.

Sodium amalgum decomposes water rapidly, absorbing the oxygen and freeing the hydrogen, as can be seen by putting a little sodium amalgam into a test tube and filling the tube with water.

Of one thing we are certain, a strong solution of potash or soda attacks such metals as lead, tin, zinc, etc., and if they are in "solution" in the mercury, if no other result follows, the mercury is made more nearly pure, and is much more active.

If in the use of sodium, amalgam and caustic potash, the results are the same, which I have found without exception in gold-beering ores, (I have not tested them on argentiferous ores), which is the cheaper? It may pay for others to experiment and see if the results will be the same as they have been with

Israel W. Knox.

Golden State Iron Works, S. F., April 4.

Salt Lake.—The Salt Lake *Vedette* says: We recently witnessed assays of ores from the surface of four ledges in Rush Valley, thirty-eight miles from this city, which yielded from one to six hundred dollars per ton. The ore was argentiferous galena. When we consider that millions of tons of such rich ores, easy of access, are the prize awaiting the capitalist, we can form some idea of the vast wealth and power that will at no distant day be here concentrated.

Corbett's Roasting Furnace.

We find the following in the Reese River *Reveille*. The description given of the roast-apparatus itself is very imperfect, and we can say but little as to its probable value. The method, however, would seem to be free from some of the objections that attach to that of Keith. We give it for what it is worth:

The roasting furnace invented by Joseph Corbett, of which we published an account on the 10th instant, seems to be attracting much attention. Whether this interest arises from a perception of the intrinsic merits of the invention, or from the economical defects of the present furnaces, we are unable to determine; but it is certain that the interest exists. The small crude furnace which Mr. Corbett erected in this city for the purpose of testing and illustrating the principle, has been visited by agents and superintendents of eastern companies, as well as by persons recently arrived from the east, for the purpose of witnessing its operation and judging of the feasibility of the plan. That the present cost of roasting our ores is a serious hindrance to the development of valuable mining property, is patent to every one; and that a more economical method is essential to full and complete success is equally palpable. Mr. Corbett's plan seems worthy of the earnest attention of all concerned in milling and mining. He claims for his invention efficiency and economy, and that while it possesses these qualities its construction will not cost more than the furnace now in use. We will give his estimate of the expense of roasting twelve tons of ore in a day in a furnace of his construction, contrasted with the cost of roasting a similar amount by the present method. Corbett's furnace would be twelve feet long by eight feet wide, through the center of which would extend longitudinally a hollow shaft, provided with arms holding peculiar shaped shovels, also hollow, and kept constantly filled with water. The oscillation of the shovels would keep the "pulp" in lively motion, while their spiral fashion would also give it a longitudinal direction, and the whole mass would thus be brought into incessant and uniform contact with the flame.

According to Mr. Corbett, a furnace of these dimensions would receive a charge of four tons of ore, which would require, say about eight hours in roasting; although the inventor claims that, owing to the incessant and thorough motion of the pulp, and the action of the flame upon the entire body, the process would be effected in from five to six hours. Ten minutes would suffice to discharge and recharge the furnace. Three charges of four tons each, would give twelve tons in twenty-four hours. One man only would be required on a shift of eight hours; three men at $4 per day would give $12; and three cords of wood, at $10 per cord, would amount to $30; making the total cost of roasting twelve tons of ore only $42, or $3.50 per ton. And the economy of Corbett's plan has a wider scope than this, as in the construction of his furnace the boiler would form the head or arch of the oven, the same fuel would generate the steam necessary for the propulsion of the machinery required in crushing and amalgamating. In contrast with this estimate we will give the expense of roasting the same number of tons of ore in ordinary furnace. A 10-stamp mill is furnished with four roasting furnaces, each of which is capable of holding 1,000 pounds at a charge, (and this, by the way, is an excessive estimate, as the average charge is about 800 pounds,) and requiring the unremitting labor and attention of two men on a shift of six hours. Each charge needs about eight hours' roasting, giving one and a half tons to each furnace in twenty-four hours, or a total of six tons per day, requiring the labor of six men at $4 each, or $24 daily. At a moderate estimate each furnace would consume one cord of wood per day, and four cords of wood at $10 per cord would be $40, which, with the labor, would give a total of $64, as the expense of roasting six tons of ore. At these figures, twelve tons would cost $128, or nearly $11 per ton. And the experience of millmen shows that the actual expense is nearer $20 per ton.

Killed by Wild Flowers.—In Santa Clara county, on Sunday, a child of Jose Nelasco, aged one year and a half, was sitting in her mother's lap, when its sisters came in with some wild flowers, which they had gathered on the hills. On crying for them, the flowers were given it, when it naturally put some of them into its mouth. In a few hours it was seized with convulsions, white foam appeared at its mouth, and in a short time the child died.

The iron and steel trade of Pittsburg, Penn., is worth $20,000,000 a year; its coal trade is valued at $9,000,000, and its oil refineries turn out $10,000,000 worth of refined oil a year.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD.

Friday, March 30.

AFTERNOON SESSION.

21 shs Yellow Jacket at 800@780 per foot.
4 shs Yellow Jacket at 780@785 per ft, s 3.
22 shs Chollar-Potosi at 39?@400 per foot.
25 shs Chollar-Potosi at 395 per foot, h 30.
8 shs Chollar-Potosi at 390 per foot, h 3.
215 shs Ophir at 735@600 per foot.
120 shs Ophir at 740@730 per foot, s 3.
24 shs Ophir at 750 per foot, h 30.
4 shs Crown Point at 1400 per foot, s 3.
4 shs Crown Point at 1400 per foot.
1 sh Savage at 1095 per foot, h 30.
1 sh Savage at 1060 per foot.
5 shs Savage at 1060 per foot, b 5.
5 shs Belcher at 345 per foot.
85 shs Exchequer at 10@10¾ per share.
10 shs Overman at 52@53 per foot.
10 shs Overman at 55 per share, h 30.
4 shs Empire M & M Co at 225@220 pr sh.
2 shs Confidence at 42 per share.
4 shs Confidence at 42¾ per share, b 5.
5 shs Imperial at 140 per share.
5 shs Bullion at 113 per share, s 3.
10 shs Sierra Nevada at 8 per share.
40 shs Sierra Nevada at 8¼ per share, b 3.

Saturday, March 31.

962 shs Ophir at 740@700 per share.
72 shs Ophir at 740@730 per foot, b 30.
4 shs Could & Curry at 1050 per foot.
40 shs Chollar-Potosi at 375@395 pr ft, h 30.
38 shs Chollar-Potosi at 370@385 per foot.
8 shs Chollar Potosi at 375 per foot, s 5.
2 shs Savage at 1060 per foot, s 3.
4 shs Savage at 1050@1055 per foot.
8 shs Belcher at 340@330 per foot.
5 shs Belcher at 335 per foot, b 3.
1 sh Belcher at 335 per foot, s 3.
4 shs Crown Point at 1590 per toot, s 5.
4 shs Alpha, C. H., at 405 per foot.
4 shs Hale & Norcross at 1010 per foot, h 30.
7 shs Yellow Jacket at 850@835 per ft.
3 shs Yellow Jacket at 850@860 per ft, s 30
3 shs Yellow Jacket at 885@880 per ft, b 30
1 sh Yellow Jacket at 863 per foot, s 3.
8 shs Yellow Jacket at 860 per foot, s 5.
2 shs Empire M & M Co. at 215 per sh.
12 shs Imperial at 140 per share.
50 shs Exchequer at 10@10¾ per share.
33 shs Confidence at 87½@40 per share.
20 shs Confidence at 38@41¼ per share, s 30.
5 shs Confidence at 41 per share, s 5.
15 shs Confidence at 43@45 per share, h 30.
10 shs Overman at 69 per foot, b 30.
11 shs Bullion at 110@115 per share.
1 sh Cal Steam Nav Co at 58 per cent.
Amount of sales.....$133,698 00

Monday, April 2.

275 shs Ophir at 750@730 per foot.
36 shs Ophir at 730 per foot, b 5.
24 shs Ophir at 745 per foot, h 30.
40 shs Chollar-Potosi at 38?@395 per foot.
5 shs Chollar Potosi at 365 per foot, s 3
1 sh Chollar-Potosi at 400 per foot, b 30.
5 shs Chollar-Potosi at 395 per foot, s 30.
6 shs Savage at 1070@1065 per foot.
3 shs Savage at 1095@1100 per foot, h 30.
1 sh Savage at 1075 per foot, h 3.
1 sh Savage at 1070 per foot, s 3.
4 shs Could & Curry at 1050 per foot.
4 shs Hale & Norcross at 970@975 per ft.
4 shs Hale & Norcross at 990@995. s 3.
2 shs Hale & Norcross at 1000 ocr ft, h 3.
28 shs Yellow Jacket at 970@905 per ft.
1 sh Yellow Jacket at 925 per foot, s 3.
5 shs Yellow Jacket at 910@965 per foot, s 5
1 sh Yellow Jacket at 950 per foot, b 20.
3 shs Yellow Jacket at 945@950 per ft, s 30.
1 sh Yellow Jacket at 990 per foot, b 30.
4 shs Alpha, C. H., at 410 per foot. s 3.
4 shs Crown Point at 1400 per foot, h 3.
21 shs Belcher at 335@327½ per foot.
95 shs Exchequer at 10@10¾ per share.
15 shs Bullion at 112½@115 per share.
7 shs Overman at 57½ per sharo.
5 shs Overman at 55 per ft, s 30.
5 shs Overman at 70 per foot, h 30.
4 shs Imperial at 142 per share, s 5.
10 shs Imperial at 144@142 per share.
100 shs N B & Mission R R at 53 per cent.
$5,000 Legal Tender Notes at 78c, s 30.
$10,000 Legal Tender Notes at 78 per cent.

AFTERNOON SESSION.

46 shs Chollar-Potosi at 396@395 per foot.
5 shs Chollar-Potosi at 390 per foot, s 30.
4 shs Crown Point at 1390 per foot.
4 shs Crown Point at 1390 per foot, s 3.
20 shs Crown Point at 1410 per foot h 30.
103 shs Ophir at 740@732½ per foot.
24 shs Ophir at 730 per foot, s 3.
25 shs Belcher at 345@346 per foot.
4 shs Belcher at 350@350 per foot, h 30.
6 shs Belcher at 355 per foot, s 3.
1 sh Belcher at 359 per foot, s 5.
15 shs Yellow Jacket at 980@1010 per foot.
1 sh Yellow Jacket at 1000 per foot, s 5.
1 sh Yellow Jacket at 985 per foot, s 30.
1 sh Yellow Jacket at 1005 per foot, h 3.
4 shs Could & Curry at 1040 per foot.
10 shs Confidence at 40 per share, s 30.
2 shs Bullion at 110 per share, s 5.
10 shs Overman at 55 per share, h 30.
25 shs Exchequer 10 per share,
20 shs Baltimoro American at 10 pr ft.
Amount of sales.....$200,655 00

Tuesday, April 3

204 shs Ophir at 766@750 per foot.
24 shs Ophir at 760@750 per foot, s 3.
36 shs Ophir at 760 per foot, h 5.
5 shs Savage at 1075@1085 per foot.
27 shs Yellow Jacket at 950@917½ per foot.
27 shs Yellow Jacket at 930@929 per foot, s 3
4 shs Yellow Jacket at 920 per foot, h 3.
1 sh Yellow Jacket at 925 per foot, h 5.
4 shs Chollar-Potosi at 395@392½ per ft.
14 shs Belchor at 362½@365 per foot, h 30.
4 shs Belcher at 345@350 per foot, s 3.
5 shs Belcher at 350 per foot.
4 shs Could & Curry at 1045 per foot.
2 shs Hale & Norcross at 1000 per foot.
2 shs Hale & Norcross at 1000 per foot, s 3.
4 shs Empire Mill & M. Co. at 212½ per sh.
10 shs De Soto at 4 per share.
38 shs Imperial at 140 per share.
20 shs Imperial at 141 per share, s 30.
20 shs Imperial at 141 per share, s 3.
27 shs Confidence at 42@45 per share.
10 shs Confidence at 43 per share, s 30.
5 shs Confidence at 47 per sharo, b 30.
5 shs Confidence at 45 per share, h 5.
20 shs Overman at 72½@75 per foot, h 30.
20 shs Overman at 70 per foot.
30 shs Exchequer at 9½@9 per share.
30 shs Bullion at 115 per share, h 6
15 shs Bullion at 115 per share, s 3.
5 shs Bullion at 115 per share, h 4.

AFTERNOON SESSION.

4 shs Gould & Curry at 1000 per foot.
3 shs Belcher at 335 per foot.
4 shs Belcher at 365 per foot, h 30.
3 shs Belcher at 350 per foot, s 3.
2 shs Belcher at 350 per foot
5 shs Yellow Jacket at 905@900 per foot.
10 shs Yellow Jacket at 905 per ft, s 5.
1 sh Yellow Jacket at 875 per toot, s 30.
2 shs Yellow Jacket at 900 per foot, b 10.
1 sh Yellow Jacket at 890 per foot.
1 sh Yellow Jacket at 865 per foot, s 30.
12 shs Yellow Jacket at 885@880 per ft.
1 sh Yellow Jacket at 875 per foot, s 5.
1 sh Yellow Jacket at 860 per foot, s 30.
2 shs Yellow Jacket at 875 per foot.
24 shs Ophir at 755@752½ per foot.
24 shs Ophir at 760 per foot, b 10.
12 shs Ophir at 752 per foot.
12 shs Ophir at 775 per foot, b 30.
12 shs Ophir at 770 per foot.
72 shs Ophir at 760 per foot. h 5.
12 shs Ophir at 750 per foot.
24 shs Ophir at 755 per foot, h 5.
4 shs Alpha, G. H., at 425 per foot, s 3.
1 sh Savage at 1080 per foot.
3 shs Hale & Norcross at 990@985 per ft.
1 sh Chollar-Potosi at 390 per foot, s 3.
5 shs Chollar-Potosi at 400 per foot, b 30.
21 shs Confidence at 44@45 per share.
10 shs Confidence at 45 per share, s 30.
10 shs Confidence at 47½ per share, h 30.
1 sh Empire M & M Co. at 210 per share.
5 shs Overman at 67 per share.
5 shs Overman at 70 per sh, b 30.
Amount of sales.....$186,425 00

Wednesday, April 4.

384 shs Ophir at 770@750 per foot.
48 shs Ophir at 760@755 per foot, b 10.
12 shs Ophir at 755 per foot, s 3.
36 shs Ophir at 760 per foot, b 3.
24 shs Ophir at 760@750 per foot, 35 d.
60 shs Ophir at 775 per foot, h 20.
26 shs Ophir at 760@785 per foot, b 30.
40 shs Daney at 15 per foot.
13 shs Yellow Jacket at 850@875 per ft.
2 shs Yellow Jacket at 850 per foot, s 3.
12 shs Alpha, C. H., at 490@480 per foot.
4 shs Alpha, G. H., at 490 per foot, h 3.
4 shs Alpha, O. H., at 480 per ft, h 30.
4 shs Savage at 1072½@1060 per foot.
10 shs Belcher at 365@360 per foot, b 30.
2 shs Belcher at 350 per foot, h 5.
14 shs Belcher at 350 per foot.
5 shs Hale & Norcross at 950@940 per ft.
32 shs Imperial at 139@140 per share.
10 shs Imperial at 136 per share, s 3.
5 shs Imperial at 138 per share, s 15.
5 shs Imperial at 138 per share, s 30.
90 shs Exchcouer at 10½@11 per share.
1 sh Empire M & M Co. at 210 pr sh.
25 shs Overman at 70 per foot, h 30.
42 shs Confidence at 45@47½ per share.
5 shs Confidence at 50 per share, b 30.
10 shs Baltimore American at 11 p sh.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, April 7, 1866.

The condition of the money market is unchanged, and capital continues abundant at rates current for some time past—1@1¼ ₱ cent. per month. A meeting of the Trustees of the Bank of California hes been celled, to increase the cepitel stock of that corporation to FIVE MILLIONS OF DOLLARS, and to alter its by-laws in reference to the transferring of shares of stock. It is understood that the accumulation of undivided profits amounts to $1,000,000, and that $2,000,000 of the new etock will be offered to the public, at a premium of 25 ₱ cent., with a view to popularize the institution, as well as to enlarge its sphere of operations generally.

Receipts of treasure from the interior have been light this week, and since Saturday lest inclusive, amounted to less than $750,000. Bullion is in good supply, and the demand for gold bare not active, at about 840. Silver is selling at 1@1½ ₱ cent. premium for bars of average fineness.

The Mining Share market continues to attract a good deal of attention, and the recorded sales this week are nearly up to the average of the pest two months. Mostly all leading stocks have been well maintained, and are firmly held at the close. The present appearance of a number of claims is still favorable, and their prospects for the future are probably better than could have been reesonably hoped for a short time since. City shares are in better favor, and some have advanced materially.

Crown Point met with trifling sales at $1,390 and $1,410, buyer 30 and eold yesterday at $1,410@1,400. During the week ending March 31st, 575 tons of ore were extracted from the mine. The ore in the incline from the 300-feet level is said to be looking extremely well. The main lode is now developed a distance of 240 feet from the north line. The main shaft has attained a depth of 375 feet. Receipts of bullion for the month of March exceeded $148,000. A dividend will be declared on the 10th instant, leaving a large surplus in the treasury of the company.

Savage rose from $1,050 to $1,085, receded to $1,060, rallied to $1,090, and was then dealt in at $1,052@1,055. No ore has been taken from the 6th level this week, but the Minnesota mill has been kept running upon ores from other portions of the mine. No settlement has been made with the Hale & Norcross company with reference to the boundary line of the two claims. Negotiations are pending however, end it is thought that a satisfactory arrangement can be arrived at without resort to litigation.

Hale & Norcross advanced to $1,020, buyer 20, dropped to $970, rallied to $1,000, fell to $930, and sold yesterday at $945@935. Every portion of the mine in the 700-feet level is said to look well. Receipts of Bullion last month amounted to some $70,000, and a dividend will be declared on the 10th instant. A net profit of about $45,000 is now at the credit of the company. The ore crushed during the month of March averaged $38@$40 per ton.

Gould & Curry has been inactive at $1,040@1,060, and was held at the close at $1,050, ex-dividend of $80 per foot paid yesterday. The yield of the mine last month was $174,096.46 from some $3,700 tons of ore, the company's mill having crushed 3,450 tons. A considerable surplus will be carried forward after the payment of the dividend.

Yellow Jacket was in decided request eerly in the week, rapidly advancing from $850 to $1,010, then receding to $850, rallying to $855, buyer 30, and selling yesterday nt $840@862. The latest officiel report from the mine (to the 19th March) states that 1,052 tons of ore were extracted during the week ending at that date, the yield of bullion being $23,172 for the same period. It is said that eome valuable ore has been found on the eouth mine, and that the general cheracter of recent developments is quite favorable.

Ophir has been largely dealt in, and eome 4,000 feet changed hands advancing from $700 to $770, declining to $735, then selling at, $750, and closiug at $745. The main lode (9th gallery) has now been developed 35 feet north, and some 20 feet to the south, with a stope of about 25 feet, the vein of ore in the latter showing a width of 21 feet. The drift to the west through vein matter (clay and quartz) is in some 40 feet. A little trouble was experienced this week with water from the west clay wall, but no further difficnlty is apprehended. From recent crushings $65,000 in bullion has been received.

Chollar-Potosi has not fluctuated materially, and some 250 feet were sold, receding from $390 to 370, advancing to $400, buyer 30, dropping to $382, and selling yesterday at $385@390. The Pinte Station has been somewhnt variable of late, but is now looking well. The upper stope of the Bujazette ground also looks well. The stope, over heed of incline, which has, for some time past, furnished about one-helf of all the ore taken from the mine, has deteriorated recently, and the Station 60 feet below the Potosi tunnel is also looking less flattering than formerly. The Grass Valley Station has improved a little. During the week ending March 30th, 1,030 tons of ore were sent to custom mills, and 93¾ tons were sold at $8 per ton.

Alpha rose from $405 to $490, receded to $480, and then sold nt $450. There is no new feature in this claim.

Belcher advanced from $330 to $365, dropping to 350, and selling yesterday at $365@355. Between the 3d and 4th levels, within abont 200 feet of the Crown Point line, a body of ore has been met with, and in going north it is said to look well. An assessment of $60 per shere was levied March 30th.

Empire Mill and Mining was dealt in within a range of $215@195, closing at $200 bid. There is nothing new to report from this claim, but it is thought that its prodnct will show a material improvement this month.

Imperial rose to $144, declined to $137, and sold yesterday at $137 @140. The last "clean up" from the Compeny's two mills emounted to $22,268, meking an aggregate of $47,664.72, for the month of March.

Bullion was dealt in at 110@115, closing at $116 bid. Overman rose from $67½ to 75, fell to $65, and then sold at $68. Confidence rose from $37 to $59, buyer 20, then sold at $46½, closing at $40.

North Beach and Mission railroad rose from $53 to $60, and is now held at $60. Spring Valley Water has advanced materielly, end sold at $70. Union Insurnnce was sold at $115. California Steam Navigation at $57; and California Home Insurence et $102½. Pacific Insurance is in request at $172.

The aggregate recorded sales of Stocks since Saturday last, were $1,019,817.

Fluctuations in Leading Mining Shares for the past Six Months.

Name of Company.	Oct. 10th.	Oct. 20th	Nov. 1st.	Nov. 10th.	Nov. 20th.	Dec. 1st.	Dec. 10th.	Dec. 20th.	Dec. 30th.	Jan. 10th.	Jan. 20th.	Feb. 1st.	Feb. 10th.	Feb. 20th.	March 1st.	March 10th.	March 20th.	March 31st.
Gonld & Curry.....per ft.	1,000	1,015	1,010	1,100	875	975	940	850	9?5	885	825	850	825	1,060	925	1,000	1,050	1,050
Ophir.....	515	580	425	392	340	370	250	350	370	345	325	400	435	440	425	760	550	740
Savage.....	1,075	930	800	765	525	570	650	960	830	700	635	830	920	900	890	1,060	1,020	1,055
Potosi.....	455	355	350	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Chollar.....	480	370	375	308	270	249	130	125	176	139	224	295	278	522½	367	390	386	370
Hale & Norcross.....	475	325	305	205	155	150	170	125	250	240	315	325	940	980	1,200	1,090	1,020	1,010
Sheha.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Daney.....	30	15	10	15	8	....	....	....	....	....	....	....	8	....	7	15	13	....
Wide West.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Burning Moscow.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pride of the West.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bullion.....	125	70	62	57	38	35	32	22	37	33	32	62	52	64	60	90	100	115
Real del Monte.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Overman.....	160	100	95	62	42	45	23	55	65	41	35	52	50	49	72	95	70	65
Sierra Nevada.....	22	12	10	12	8	5½	9	3	10	10	9	5	....	8	....	12	11	8
Yellow Jacket.....	1,110	720	760	670	620	535	235	425	530	440	370	465	407½	395	420	700	790	880
White & Murphy.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sides.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Uncle Sam.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Baltic.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
North American.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Baltimoro Amorican.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	....
Melones.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Antelope.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Napoleon.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacramento.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Utah.....	....	....	....	....	....	....	....	....	....	3½	....	....	....	3	3¼	....	....	....
Lady Bryan.....	210	174	183	157	150	120	85	100	133	?13	108½	120	114	121	126	177½	156	140
Imperial.....	1,025	750	760	720	830	700	490	460	540	565	550	890	835	925	1,080	1,350	1,300	1,390
Crown Point.....	630	400	485	400	300	265	245	160	175	145	220	195	160	180	270	300	285	340
Belcher.....	1,700	1,040	1,010	790	930	740	600	140	240	200	300	370	290	270	271	810	320	410

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'D DELINQ'T LIST.	DAY OF SALE.
Arbitrias, Chihuahua, Mex., $1		Mar 29	April 9
Alpha, Gold Hill, Storey co , Nev., $30		Mar 24	April 24
Attaville, $1.25		April 14	April 30
Adams' Petroleum, $5		April 30	May 19
Alameda Coal		Meeting April 9	
Beard & Seaver, Lander co., Nev., 50c		April 14	May 1*
Batopilas, Chihuahua, Mex., 25c		May 10	May 28*
Belcher, $60		April 30	May 30
Belcher, Baldwin & Abernathie Co, $20		April 30	May 30
Baltimore American, Storey co., Nev., $2		April 12	April 28
Bullion		$10 00	
Cosala, $1		April 26	May 12*
Comet Petroleum co., 30c		Mar 31	April 14*
Crown Point		Dividend payable Mar 15	
Consolacion, $1.25		Mar 31	April 15
Capital, Lander co., Nev., $5		April 3	April 19
Chipiones, Sonora, Mex., $5		April 28	May 12
Chicago and Detroit Consolidated		Meeting April 16	
Confidence, Storey co., Nev., $25		May 4	May 18
Dancy, 50c		May 12	June 9
Eagle Quartz, Amador co., Cal., $1		April 7	April 25*
Evening Star, Humboldt co , Nev , 50c		Mar 31	April 14*
Emerald Copper, $1		Feb 10	Feb 24
Eureka, Plumas Co		Meeting May 1	
Exchequer, $2		April 30	May 15
Geo. Washington, Alpine co., Cal., $1.50		Ear 24	April 10*
Gould & Curry		Dividend payable April 5	
Harker, Lander co., Nev., 50c		April 14	May 1*
Honest Miner, Lander co., Nev., $1		April 7	April 18*
Hanscom, Copper, Del Norte co., 15c		May 1	May 21*
Humboldt, Nevada		Annual Meetlug April 10	
Jefferson Lander co., Nev., 50c		April 14	April 30*
Jeffrey Oil, Humboldt co., Cal., 50c		April 17	April 23
Kentucky, $1		May 8	May 30*
Lady Franklin, Alpine co., Cal., 25c		May 7	Juno 5*
Lady Bell, 10c		April 14	April 28*
Lady Bryan, Storey co., Nev., $1		April 9	April 21
Lady Bryan		Annual Meeting April 11	
La Trobe T & M co., Storey co., Nev., $1		April 10	April 28
La Victoire, $1		May 4	May 21
Madison, Lander co., Nev , 50c		April 14	April 30*
Monitor, Lander co., Nev., 75c		April 14	April 30*
Mosquito, Calaveras, Cal , $5		April 7	April 23,
Moss Ledge co., $25		May 1	May 15
Maria, Chihuaha, Mex., $2		March 31	April 14
Manchester, Alpine co., Cal		Meeting April 15	
North Star, Lander co., Nev , $25		April 30	May 28*
Nuestra, Sonora de Guadalupe, Mex., $1		Mar 31	April 16
Oregon, Lander co., Nev., 25c		April 14	May 1*
Oxford Reta, Esmeralda, Nev , 50c		April 7	April 25*
Old Colony, Austin, Nev., $4		April 14	April 28*
Overman, Storey co., Nev., $15		April 3	April 18
Open Sesame, 50		April 20	May 2
Pride of the East, 50c		April 14	April 27*
Providence, Nevada co., Cal., $1		Mar 17	Mar 31*
Patrocinia & Dolores, Chihuahua Mex., $2.50		April 1	April 10
Peninsula, Lower Cal., $5		April 3	April 14
Refugio, Chihuahua, Mex., $2½		Mar 31	April 14
Refugio, Mex		Meeting April 2	
Silver Cloud, Lander co., Nev., 50c		April 14	April 27*
Santa Cruz 50c		April 14	April 28*
Sweet Vengeance, $1		April 17	May 4
Siskiyou, $1.50		Apri 23	May 25
Sophia, Tuolumne county, $7		April 26	May 11
Shoshone, Lander co., Nev., $1		April 9	April 23
Siempre Viva, Sinaloa, Mex., $2 50		Mar 27	April 7
Salambo Copper, 50c		Mar 17	April 5
Seaton		Sale March 30	
Sophia Consolidated		Meeting April 12	
Stephen A. Douglas, Lander co., Nev		Meeting May 2	
United States, Storey co., Nev., 50c		Mar 17	Mar 31*
Yuba, Yuba co., Cal., $2		Mar 31	April 14*
Yellow Jacket, Storey co., Nev , 150		Mar 17	April 17

*Those marked with an asterisk (*) are advertised in this Journal.

San Francisco Metal Market.

PRICES FOR INVOICES.

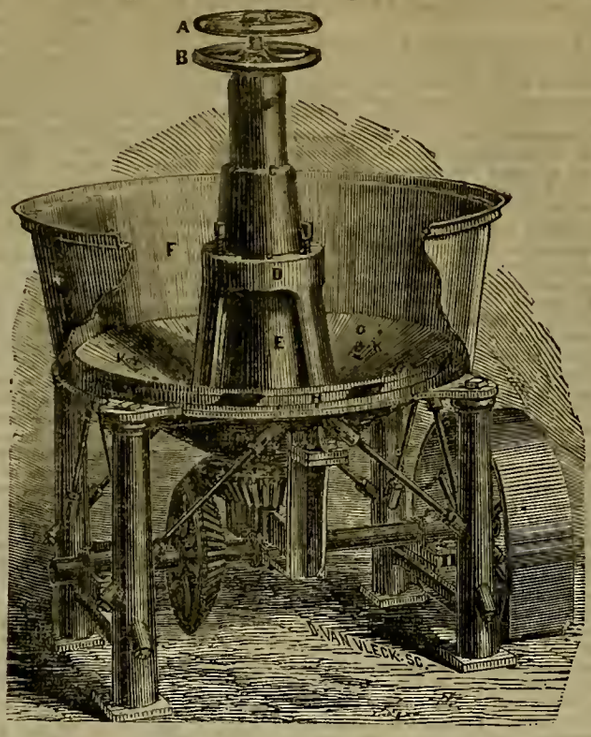
Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

San Francisco, March 17, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.		
Scotch and English Pig ₱ ton	50	@—55
American Pig ₱ ton	55	@60
Refined Bar, bad assortment, ₱ lb	3	@—
Refined Bar, good assortment, ₱ lb	3½	@—
Boiler No. 1 to 4	4	@ 5
Plate No. 5 to 9	4½	@ 6
Sheet No. 10 to 13	4	@—
Sheet No. 14 to 20	5	@—
Sheet No. 24 to 27	5½	@—
COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb		
Sheathing ₱ lb	35	@38
Sheathing, Old	20	@30
Sheathing, Yellow	30	@32
Sheathing, Old Yellow	12	@13
Bolts	13	@16
Composition Nails	30	@32
TIN PLATES.—Duty: 2½c ₱ lb.		
Plates, Charcoal, IX ₱ box	14	@15
Plates, I C Charcoal	12	@13
Roofing Plates	11	@12
Banca Tin Slabs, ₱ lb	30	@ 5
STEEL.—English Cast Steel, ₱ lb	12½	@16
QUICK-SILVER.—Per lb	—	@65
For export	55	@—
ZINC.—Sheets ₱ lb	9½	@10
LEAD.—Pig ₱ lb	8	@—
Sheet	10	@12
Pipe	10	@12
Bar	10	@11
BORAX—California, ₱ lb	20	@23

HEPBURN & PETERSON'S PANS AND SEPARATORS.

For Reducing and Amalgamating Gold and Silver Ores.



We invite the Mining Public to examine the record of our Machines before adopting any other for producing similar results. They have been in general use for the past three years, during which time they have been repeatedly tried in comparison with every other machine of note, and of a similar nature, and have invariably been adopted in preference; which facts we offer as the most suitable recommendation, and which is attested by the following list of

Principal Mills Using them:

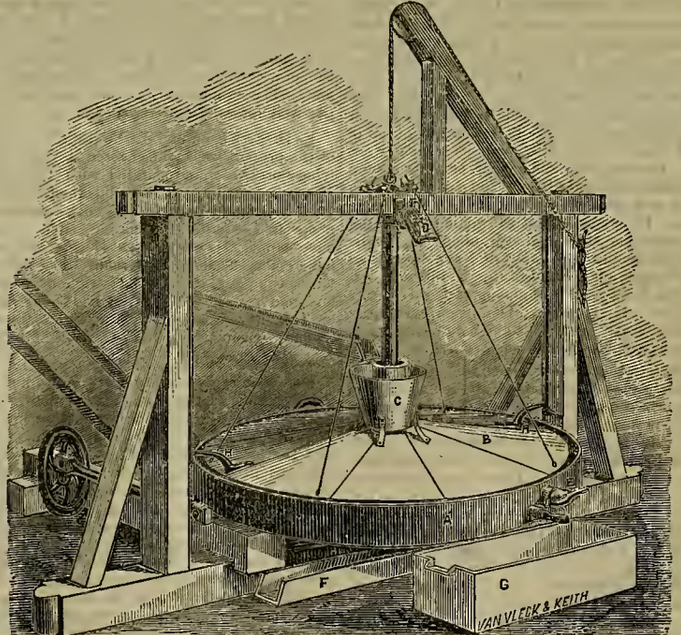
Names of Companies.	Location of Mill.	Names of Companies.	Location of Mill.
GOULD & CURRY	Virginia City, Nevada.	TEAKLE, ROGERS & CO	Nevada.
SILVER STATE REDUCT'N WKS	Empire City, "	MELVILLE KELSEY	Silver City, "
OPHIR	Washoe City, "	HUDGIN & FORMAN	Silver City, "
EDWARD McLEAN	Silver City, "	YELLOW JACKET	Empire City, "
SANTIAGO	Zephyr Flat, "	BELDIN & GREGORY	Esmeralda, "
RAPHAEL & HUSTED	Gold Hill, "	HECKENDORN	Calaveras Co., Cal.
FRENCH & RESLER	Dayton, "	CARSON CREEK	Calaveras Co., "
HERMAN, KETSCHER & CO	Carson River, "	CROWN LEAD	Mariposa Co., "
A. SUTRO	Dayton, "	BIG BLUE LEAD	Tulare Co., "
DAVIS & BARRON	Carson City, "	E. T STEEN	Amador Co., "
PHŒNIX	Silver City, "	EAGLE	Amador Co., "
CHAS S COUVER	Silver City, "	IDA MILL	Owens River, "
PIONEER	Silver City, "	ALACRAN	Sonora, Mexico.
L. A. ROOTHE & CO	Virginia City, "	SANTA CLARA	Sonora, "
A. DELAND	Washoe, "	ROSARIO & CARMAN	Sonora, "
SUTRO MILL & MINING CO	Gold Hill, "	LIBERTAD	Sonora, "
RODGERS & GRISSAM	Silver City "	DON JUAN ROBINSON	Sonora, "
ANDERSON & SEAL	Washoe, "		

Manufactured at the Principal Foundries in San Francisco.

HEPBURN & PETERSON,

5v12tf At the VULCAN IRON WORKS, Nos 137 and 139 First Street, San Francisco.

NOTICE TO QUARTZ MINERS.



Hendy's Improved Patent Self-Discharging Sulphurets

PRATER CONCENTRATOR

. Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " " "
U. S REESE RIVER MILL, Austin, "
CARROL & ASPINWALL MILL, Reese River, Nevada.
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
BLUE LEDGE MILL, near Spanish Flat, El Dorado Co.
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:

One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.

☞ For explanation of the above engraving, and other particulars, send for a Circular

JOSHUA HENDY,

8v12tf No. 402 Montgomery street, Room 3, 4th floor.

40 shs N B & Mission R. R. at 59 per ct.
20 shs Union Insurance at 115 per cent.
$ 5,000 Legal Tender Notes at 78 per ct, s 30.

AFTERNOON SESSION.

156 shs Ophir at 763@750 per foot.
64 shs Ophir at 765 per foot, b 10.
36 shs Ophir at 757 per share.
12 shs Ophir at 759 per foot.
2 shs Yellow Jacket at 875 per foot, b 10.
1 sh Yellow Jacket at 8.5 per foot.
3 shs Yellow Jacket at 870 per foot, s 5.
1 sh Yellow Jacket at 860 per foot, s 30.
4 shs Yellow Jacket at 870 per foot.
4 shs Chollar-Potosi at 382½ per foot, b 30.
12 shs Chollar-Potosi at 382½ per foot.
1 sh Savage at 1060 per foot.
2 shs Savage at 1060 per foot, s 30.
2 shs Savage at 1055 per foot, s 3.
5 shs Belcher at 350 per foot.
2 shs Belcher at 360 per foot, b 30
4 shs Hale & Norcross at 930 per foot
100 shs Exchequer at 11¼ per foot.
20 shs Exchequer at 11 per foot.
10 shs Imperial at 139 per foot.
30 shs Bullion at 115 per ft.
5 shs Confidence at 47½ per foot.
5 shs Confidence at 45 per ft, s 30.
10 sh Confidence at 50 per ft, b 30.
15 shs Confidence at 45, s 30.
15 shs Confidence at 48 per foot.
5 shs Confidence at 50 per ft, h 20.
10 shs Ophir at 70 per foot.
5 shs Overman at 72¼ per ft, b 30.
35 Cal Home Ins Co. at 102½ per cent.
Amount of sales $192,338 00

Thursday, April 5.

180 shs Ophir at 750 per foot, b 30.
12 shs Ophir at 750 per foot, b 10.
80 shs Ophir at 750@740 per foot.
60 shs Ophir at 740@735 per foot, s 3.
132 shs Ophir at 725 per foot, h 3.
24 shs Ophir at 760 per foot, h 30.
1 sh Savage at 1090 per foot, b 30.
1 sh Savage at 1070 per foot.
23 shs Yellow Jacket at 875@850 per foot.
5 shs Yellow Jacket at 875@850 per tt, s 3.
15 shs Yellow Jacket at 890@850 per tt, b 30.
10 shs Yellow Jacket at 860@865 per ft, s 30.
2 shs Yellow Jacket at 860 per foot, s 5.
2 shs Yellow Jacket at 850 per foot, s 10.
2 shs Yellow Jacket at 850@860 per ft, s 15.
4 shs Hale & Norcross at 940 per foot.
2 shs Hale & Norcross at 950 per foot, h 20.
2 shs Hale & Norcross at 950 per ft, h 30.
3 shs Belcher at 350@352½ per foot.
3 shs Belcher at 350 per foot, s 5.
1 sh Belcher at 350 per foot, s 10.
1 shs Chollar-Potosi at 385@382½ pr ft.
3 shs Empire M & M Co, 206@205 per sh.
30 shs Overman at 68 per foot.
10 shs Overman at 73@72½ per ft. h 30.
10 shs Overman at 70 per ft, b 10.
5 shs Overman at 66 per share, s 30.
15 shs Confidence at 46½@47 per share.
5 shs Confidence at 46¾ per share, s 5.
10 shs Confidence at 47 per share, h 10.
15 shs Bullion at 115 per share, s 3.
10 shs Bullion at 117½ per share.
5 shs Bullion, at 117½ per share, s 5.
2 shs Imperial at 137 per share.
40 shs Exchequer at 10½ per shars.
15 shs Exchequer at 10¾ per share, s 3.
1 sh Cal Steam Nav Co at 57 per cent, s 5.
$5,000 Legal Tender Notes at 78¼, s 30.

AFTERNOON SESSION.

13 shs Belcher at 350 per foot, s 3.
16 shs Belcher at 360 per foot, b 30.
5 sh Belcher at 350 per foot.
1 sh Yellow Jacket at 870 per foot, b 30.
1 sh Yellow Jacket at 825 per foot.
1 sh Yellow Jacket at 860 per foot, h 30.
1 sh Yellow Jacket at 820 per foot.
12 shs Yellow Jacket at 815 per foot.
4 shs Yellow Jacket at 810 per foot.
5 shs Yellow Jacket at 805 per foot.
2 shs Yellow Jacket at 800 per foot.
3 shs Yellow Jacket at 840 per foot, h 30.
4 shs Yellow Jacket at 810 per foot, s 3.
60 shs Ophir at 745 per foot.
50 shs Ophir at 740 per foot, s 30.
24 shs Ophir at 740 per foot, s 3.
12 shs Ophir at 745 per foot, s 5.
60 shs Ophir at 750 per foot.
36 shs Ophir at 750 per foot, s 3.
12 shs Ophir at 750 per foot, h 3.
12 shs Ophir at 741¼ per foot, b 5.
4 shs Crown Point at 1380 per foot.
4 shs Hale & Norcross at 940 per foot.
2 shs Hale & Norcross at 935 per foot.
2 shs Hale & Norcross at 965 per sh, h 30.
2 shs Hale & Norcross at 945 per foot.
4 shs Chollar-Potosi at 382½ per foot.
1 sh Savage at 1070 per foot.
4 shs Alpha, G H, at 450 per foot.
1 sh Empire M & M Co at 205 per share.
5 shs Empire M & M Co. at 200 pr sh.
1 sh Empire M & M Co. at 200, s 3.
10 shs Bullion at 115 per share, s 3.
20 shs Imperial at 137½ per share.
5 shs Overman at 67¾ per sh, s 3.
20 shs Overman at 68½ per share.
20 shs Sierra Nevada at 7 per shara.
Amount of sales ...$172,863 00

Friday, April 6.

2 shs Savage at 1055@1052½ per foot.
1 sh Savage at 1050 per foot, s 30.
1 sh Savage at 1075 per foot, b 30.
3 shs Cal Steam Nav Co at 57 per ct.
10 shs Spring Valley W W at 70 per cent.
49 shs N B & Mission R R Co. at 59@60.
17 shs Yellow Jacket at 860@840 per foot
5 shs Yellow Jacket at 840@845 per ft, s 30.
4 shs Yellow Jacket at 865 per foot, h 30.
25 shs Chollar-Potosi at 382½@385 per ft.
11 shs Chollar-Potosi at 400 per foot, o 30.
121 shs Ophir at 743@745 per foot.
2 shs Hale v Norcross at 935 per foot.
40 shs Crown Point at 140@1400 per foot.
69 shs Imperial at 140@137 per share.
2 shs Empire M & M Co at 195 per sh.
48 shs Belcher at 360@370 per foot, h 30.
21 shs Belcher at 340@355 per foot.
3 shs Belcher at 365 per foot.
40 shs Dancy at 14 per foot.
30 shs Sierra Nevada at 7 per share.
70 shs Exchequer at 10 per share
86 shs Confidence at 40@40½ per share.
15 shs Confidence at 39 per share, s 30.
Amount of sales $398,942 00

Mining Summary.

CALIFORNIA.

MONO—*Bodie District.*—The most cheering accounts are daily received. The monthly shipment of bullion from the Empire mine shnwe a steady increase of the precious metals. The Superintendent of the company anticipates hy tbe opening of the spring (sey May) to be able tn forward to their heed officer at New York donble tbe amount nf bullion from this mine that has heen shipped during the last year. I have no doubt of the result from a recent examinetion of the mine, togetber with the experience of the past year in treating the ore, as well as new and important improvements and appliances that will soon be brought into ective operation in reducing and amalgamating the ores.

The Homestake Consolidation cleims are situated on the southeast side of High Peak, while their mine is at the foot of the hill on the west side. This company have now in active operation three shafts, and are taking nut eome of the richest ore that I have ever seen on this side of the mountains, (not selected.) The whole vein, taken out from casing to casing, will pay not less than $200 per ton. This figure may seem rather high to many of your readers, but I am satisfied, should they make an examination, as I have, they will more than confirm this statement. All of the bullion taken from this district averages about ten dollers per ounce. The Crescent, located some two years ago, ie one of the most valuable in the district, and is favorably situnted between High Peak and Bunker Hill; the former on tbe west and the latter on the east; tbe Empire on the north and tbe Homesteke on the south. The proprietors of this fine location claim one eurface claim of 200 feet square to each locator, with the right to all gold, silver and copper veins, and all other minerals, with all their dips, engles, spurs and feedere, that may bc fonud in said location. The area of this plot of ground is 400 foet wide and 1,000 feet long, and is prominently marked out by having erected at each corner euitable posts, threc feet high. upon which is elegibly marked the names of the locators, the date of the location and the number of feet by each locator. The company recently commenced a perpendicular shaft of the largest eize, about the centre of their group of claims, and have now reached to the depth of 160 feet, at which point they struck bed rock. Upon penetrating into the rock they found a fine looking ledge of pay ore. The company are now preparing to sink fifty feet deeper, at which point they will run drifts at right angles for the purpose of exploring the entire piece of ground.

Columbus District.—Was first discovered in the latter part of the summer of 1864, by a party of Mexicans, and from that time up to the latter part of 1865 l ttle or no work was done on the ledges except for the purpose of securing a few specimens and what was necessary to comply with the mining laws in regard tn locations—consequently it is not in a very forward state nf development. The deepest ehaft in the district at the present time is not nver twenty-five feet deep. This district is situated about seventy-five miles in an easterly direction from Aurora, and nbout thirty five miles east of McBride's Ranch. The principal ledges are the Revenue, Buluarte, Ural Mint, Dumay, Yellow Jacket, Nightingale, Baltic, Stamp, Mitchell, San Jose, Cincinnati, San Pablo, and Tesora. The ore in this district is somewhat similar to the Hot Spring and Montgomery ores in its component parts. The thickness of the ledges varies from fifteen inches to five and six feet. The formation is granite and slate, the latter overlupping the granite formation from three to twenty feet. The village of Columbus contains from thirty-five to forty cabins. There are now employed between fifty and sixty men in opening out and developing the mines, and rich strikes may be looked for during the coming summer Plenty of water is readily found hy sinking from two to ten feet anywhere in the vicinity of the village. Wood for fuel purposes and fresh water have not been found nearer than fifteen miles nf the camp. An immense basin of salt lies ahout two miles east of the town.

Lone Mountain.—Exceedingly rich mines have been found by some Mexicans at Lone Mountain, thirty miles northeast of Silver Peak, in the eouth-west part of Nye county.

The Governor and his party left here on Friday morning last, accompanied by an escort of twenty U. S. Cavalry. Among others I noticed Hon. John Vandewater and Hon. John C. James of your county; also, Senator Lambert of Washoe county.—*Aurora Correspondence of the Virginia City Enterprise.*

PLACER COUNTY.—We learn from the *Enquirer* that the Badger Hydraulic claim, near Dutch Flat, cleaned up, the other day, as the result of a fifteen days' run with four hands, the sum of $3,000. It is held in thirteen shares, and the amount above will pay, after deducting expenses, ebout $150 per share. The Rough and Ready, in the same vicinity, cleaned up $2,500 as the result of fifteen days' washing.

A Rich Strike.—Last week a ledge was located on the lot of C. A. Tuttle, Esq., by Judge Fellows. H. H. Fellows, Walter Fellows, and three or four other fellows, which prospects immensely. Rock taken from a depth of four feet, and assayed by Dr. A. A Veatch, yielded at the rate of $447.40 to the ton. The rock would not be taken for mineral rock by a novice, but it is undoubtedly rich.—*Auburn Stars and Stripes.*

An immensely rich quartz ledge has lately been discovered in tbe Fuir hydraulic claims, at Gold Run, Placer county. Several nuggets have been found, varying in value from five to twenty-five dollars.

Nearly all of the original owners of the Pacific lead, below Ophir, have disposed of their interests at prices ranging from three to three dollars fifty per foot. But feet cannot be purchased in the ledge at these prices now. We understand that the best ore from tbe mine has been negotiated for by Swansea agents, and that the yield will be over $300 per ton, principally silver.—*Auburn Herald.*

Colfax Quartz.—We saw yesterday a handsome specimen of gold-bearing quartz, brought to town by J. H. Neff, Esq., from the Rising Sun ledge on Bear River. It was beautifully besprinkled with free gold. On Monday fifty feet of the ledge were sold for $5 per foot. *Stars and Stripes.*

The Dutch Flat *Enquirer* learns that the quertz excitement in the vicinity of Colfax continues unabated. The ledges are situated near Bear River, and almost immediately on the Grass Valley road. Many are confident that the ledges are the continuation of the Grass Valley series. The rock bears a striking resemblance.

TUOLUMNE COUNTY. — We have some wonderfully rich float rock this week, picked up near Shaw's Flat, in which vicinity, at various times, have been found considerable quantities of the same character of quartz, evidencing that somewhere in the neighborhood is a lead of fabulous wealth.—*Sonora Courier.*

SHASTA COUNTY.—The *Courier* says that we are pleased to notice that Jones & McCall's claim is producing rock rich in sulphurets, resembling the Muletown product. We believe this lode is going to prove very rich; but if it will pay only eight dollars per ton, it will be an immense fortune to the owners. It is six feet wide, and so easy of access that the expense of taking it out will be comparatively nothing for yeare to come.

The Kellinger Mine.—A correspondent of the Shasta *Courier* writing from Copper City, says: The indomitable Gooch has melted twelve ounces of silver and gold from forty pounds of Kellinger rock. The Kellinger lower tunnel is now in eight hundred and fifty feet, and is in what is considered case rock. The upper tunnel is probably nearer the ledge than the lower one, and the rock is somewhat harder but of the same kind. It is the same kind of rock that the Bully Hill company stopped work on. It shows iron and copper sulphurets, and assays in gold and silver. Some of you Shasta folks may think we will not strike a good ledge here. It may be so, but we would rather think of seeing the sun stand still upon Tay Bully, and the moon in the valley of Narwarket, than not strike a good ledge in the Kellinger. After the Kellinger, the labnlous riches of Bully Hill will be opened. Then men will say: "What a fool I was not to hold on to my feet!" Such is life, Mr. Editor, such is life.

PLUMAS COUNTY.—From the Quincy *Union*, we learn that Messrs. King, Neesman & Co., who own the quartz ledge discovered near the Sulphur Spring Ranch in Mohuwk Valley, last fall, have been crushing some of the quartz from the ledge, in an arastra. The rock pays about $20 to the ton. They think they are on the main lode, and have already taken out enough paying quartz to keep one arastra running all summer. If the rock continues to pay as well ae it does at present, a mill will be built on the ledge this season. Two other ledges have been discovered near tbe above ledge, which prospect fully as well.

CALAVERAS COUNTY—*The Keystone.*—The Copperopolis *Courier* says that the strike recently made in the new shaft of the Keystone claim bids fair to be an important one. In tbe bottom of the shaft, which is about fourteen feet in depth, is a handsome lead about two feet wide. The lead is widening materially toward tbe northwest, and may lead to a large and valuable deposit of ore.

Copper Ore.—C. T. Meader & Co. shipped yesterday, March 31st, 1866, by steamer, 127 sacks (13,970 pounds) of Union mine copper ore. The sloop Dorinda carried off eixteen tons of Keystone mine ore, shipped by R. B. Parker & Co.—*Stockton Independent.*

MARIPOSA COUNTY—*Copper.*—The Stockton *Independent*, March 31st, says: Two hundrod and ninety bars, or pigs, of smelted copper, brought from Phillips & Haskell's smelting furnace on the Buchanan lead, at tbe head of Chowchilla creek, Mariposa county, is now at the store of J. Pache & Co., commission merchants, Levee street. The lot weighs 17,612 pounds, and the metal assays about ninety per cent. of pure copper. A letter from the mines, received by a gentlemen in this city, says that the discoveries recently made on the Buchanan lead proves it to be one of the richest mines found in the State. At a depth of sixty feet, the vein of ore is five feet wide, and the mineral is of an oxtraordinary rich quality. Astouishing developments will undoubtedly be mede in that section of the country next summer.

With the new furnaces, it is claimed thet ores averaging five per cent. can be made to pay, and that with a furnace costing $3,000, three tone of copper bars a day can be reduced from the orcs. The new furnace is eucased in water, which prevents the breaking, cracking and warping from heat, so common in ordinary furnaces. The copper reduced by this furnace will cost $30 per ton, and the expense of sacking and transportation of ores is seved. It is claimed that the machinery of the new furnace can be put up in ten hours' time, after its arrival on the ground. The cupola of Haskell's furnace was cast at the Golden State Iron Works, in this city; and Coffey & Risdon manufactured the wronght iron casing. A pile of copper bars, from the furnace, may be seen at Coffey & Risdon's shop, on Market street.

NEVADA COUNTY.— Regsdale & Co., bave struck an immensely rich ledge, about one mile southwest of the Globe ranch, near the celebrated Stockton lode. They have been taking it out rich for several days past, but on Saturday struck it richer than ever, and took out over $1,000 in a few hours.

Arastras.—The Grass Valley *National* is informed that Wm. Eberlin & Co who own the Bunker Hill ledge which bas been worked for six or eight months, and has paid as high as thirty dollars a ton, are now engeged in putting up two arastras, near Rough and Ready, to work their rock. For some time past the rock from their ledge has been crushed at Smith & Co.'s mill, near the above place, but the owners of tbe ledge, thinking that more gold could be saved by using arastras in crushing, have been induced to put up two and try them. Water power will be used to run the machinery.

ALPINE COUNTY.—*Rich Assay.*—Judge Burbank, of Virginia, who by the way is again with us looking after his mining interests, lately had five different pieces of rock from the croppinge of tbe George Law claim assayed at Virginia. They ranged from $181 to $1,394 to the ton. The highest assay was about $900 in silver to $500 in gold. The George Law is owned by Judge Burbank and a few other citizens of Virginia who are so well satisfied with the claim that they contemplate the erection of a 60-stamp mill during the coming summer. The croppings are immense and will pay well for working.—*Chronicle.*

E. H. Errickson and J. Smith, the forepart of the present week, discovered a new ledge lying northwest and parallel with the Wide West Co.'s claim. It is well defined, having a bold, continuous outcrop, the rock from which looks fine — exhibiting native silver. They have named this claim the "Desperado," and have commenced work thereon. The General Grant company, Raymond district, have some fine gold bearing rock They had penetrated, on Thursday, four feet, with no indications of a back casing, or wall.—*Silver Mountain Bulletin.*

The Monitor *Gazette* says: Workmen on the Merchant's ledge have cut in about seven feet, and the ore looks better as they get in. They are 500 feet under ground in this lode, and the amount of ore which may be sent to mill is almost unlimited. Mr. G. G. Payne, of this place, has been quietly engaged during the winter proving up and testing the value of the Sailor lode, up the cañon between here and Mogul, and as quietly securing to himself the title to the same. From the different assay bills we have seen of this ore, ranging from $11 to $138 per ton, and from the width and general permanent appearance of the lode, we think we are justified in concluding that Mr. P. has a good thing.

The superintendent of the American Mining Company, finding the work of pumping out the shaft both laborious and expensive, has put a dam across Monitor creek, above town, for the purpose of taking out the water to be carried in flume to the works, where it will be made to turn a twenty-foot overshot wheel, which will be geared to the pump and perform a service.

In Alpine District, the St. Helena Company, near the head of Indian creek, have been at work all winter, and a few days since struck ore to encourage them wonderfully. The Good Hope Company will resume operations again in a short time, hopeful of showing milling ore at no distant day.

SIERRA COUNTY.—A correspondent of the *Mountain Messenger*, writes from Newark, in the north part of the county, as follows: The late rains have filled our ditches with the precious fluid, and our buckskin purses with precious dust. Every man here is employed. The Nevada claim is paying very well at present. Mr. Martin Perkins, who left here last fall with a large fortune accumulated in this claim, returned a week or two since, and placed the boys again on the lead they had lost in his absence. The Swiftsure claim, Miles Schofield proprietor, turns out a wonderful supply of dust weekly, owing to the good management and persevering energy of Mr. S., though he labors under many disadventages. The North American claims are paying well, and give employment to a large number of men. The claim consists of sixteen sheres. The Boston claims, Charles Kenny & Co., are paying from six to eight dollars per day to the hand, working through an incline and washing their gravel the year round. The Vermont claims, C. O. McQuestion & Co., struck it rich last week—as high as twenty five dollars per car load. Mr. J. P. DeNoon is prospecting the old Reading ground. Success, I hope, will ultimately be his reward. The Phœnix claims, Sutherland Brothers proprietors, pay largely, employing twelve or fourteen hands, In the Washington, Rutledge & Co., there has been no washing done since last fall, but a large pile of evidently rich gravel is accumulating for spring. It is with regret that I state the Gem is worked out, so we shall place her on the list of the dead. She has done good service, and contributed largely to the prosperity of this camp.

Another correspondent of the *Messenger* gives the following from St. Mary's District:

The mines were discovered late in the fall of last year by parties going to Excelsior. They lie directly on the Henness Pass and Sierra Valley road, about twenty-five miles from Summit City. There have been some thirty-four claims located, and work has been going on all winter on some of them.

The United States Company, General Grant ledge, have sunk a shaft to a depth of 50 feet, and rock taken out from that depth assayed in gold, $54.15; silver, $12.10—making a total per ton of $76.25.

The American Chief Company have a shaft down twenty-five feet. The Abe Lincoln and Little Savage Companies working on the Rochester lead, have each a shaft about twenty feet deep. Top rock, taken from the Warner Company and Sampson ledge, assayed $15.73, silver and gold. The Young America Company, Monumental ledge, have a shaft fifteen feet deep.

Lumber can be had here at fifteen dollars per thousand, and wood and water are plenty. The cost of working the ores here will be trifling. There are two towns laid ont at the present time, one called Spring Garden City, at the junction of the Henness Pass and Sierra Valley road, and within a short distance of the mines.

WASHOE, NEVADA.

The Virginia City and Gold Hill papere report favorable indications from various quartere this Spring. The leading companies seem to be finally ready to take hold of the great Sutro-Comstock drain-tunnel. Recent strikes of abundance of rich ore at great depths are having a brightening effect. Besidee the facts stated in the weekly stock reports, on another page, we clip the following paragraphs from the *Enterprise:*

The Yellow Jacket company have at present an immense body of ore of extraordinary richness. The ore appears daily to grow richer and more abundant. A large amount is being taken out. In whatever direction drifts are run within the bounds of the vein good rock is found.

Some very rich ore is being taken from the Kentuck claim, Gold Hill. The company are putting up steam hoisting machinery, when large quantities of ore will be raised.

REESE RIVER, NEVADA.

We condense the following from the *Reveille* of recent datee:

Good Assays.—J. P. Spaulding has laid upon our table certificates of assays by J. R. Murphy, of the National bank, of mineral obtained from the White Mountain district, just discovered in the White Mountains, fifty miles west and south of Silver Peak. No. 1 yielded $17.27 in silver; the Quaker City, $2,164.98 in silver; Good Intent, $12.50 in silver, $21.99 in gold; and the Waverly, $86.38 in silver, $25.01 in gold. The ore procured from the Quaker City is a rich silver glance, and that from the Waverly argentiferous copper.

The Confidence mill has been closed for needed improvements; four barrels will be added to the six tubs already in the amalgamating department, and an additional furnace erected, making four in all. Work progresses

systematically on the mine, and they are pushing the exploration and extracting ore at the same time. The company is also working the Tuscarora mine, situated in Marshall Canon, from which excellent mineral is being procured. When the mill is completed a large amount of superior ore will have accumulated, and the work of reduction will move steadily on.

New Discoveries.—Spaulding and Cahaley have been prospecting in the White Mountains, about fifty miles west of the Silver Peak district, and they discovered and located sixteen ledges, varying in size from three to twelve feet. They named the new district the White Mountain. Some of the veins exhibit gold without a trace of silver, others silver without a trace of gold, and others again contain both gold and silver in varying proportions. Many of the specimens are very beautiful, and the presence of copper has given to them the soft iridescent tints. Cahaley discovered also in the mountains forming the eastern boundary of Fish Lake, and about fifteen miles from White Mountain district, three large veins of silver-bearing mineral, specimens from which exhibit masses of dark sulphuret of silver, but he could not prospect the range thoroughly on account of the Indians—the Indians tribe—who are thieving rogues, and required incessant watching.

Crœsus District.—A new mining district, named as above, has been laid out on the edge of Death Valley, about fifty miles southeast of Silver peak. The leads are from four to fifteen feet thick, and assay from $20 to $400 per ton. There is plenty of wood and water within six or eight miles, though none is found in the immediate vicinity of the mines.

Mount Vernon.—We enjoyed, recently, the pleasure of a visit from Captain Robert Knapp, superintendent of the Mount Vernon company. The Captain is at present working the mines of the company located in the Mammoth District, numbering, we believe, seventy ledges; and he has commenced a tunnel which will cut, in the distance of 500 feet, at least fifty veins—upwards of thirty of which belong to the company. This number does not include the blind ledges. The tunnel has an open cut of 120 feet, and has been run in forty-five feet. Capt Knapp is an experienced and intelligent mining superintendent, and the enterprise he has been selected to conduct will prove one of the greatest in magnitude yet undertaken in the country.

FROM THE NORTH.

A correspondent of the Montana *Post* writes from Helena, March 1st:

Although the weather is still severe, active preparations are being made by all for Spring. In riding through the numerous gulches, one is surprised to see so much work being done this early in the season. Grizzly, and particularly Gry Gulch, show great activity, the latter being completely filled with piles of pay-dirt, one of them estimated to contain $28,000. Those who worked this gulch last season did not find the good pay-streak that has since been struck. Oro Fino Gulch is receiving a practical damming, much more effective for good than wordy efforts in the same line previously indulged in by unfortunate miners. Two profane utilizers of water, of considerable length, have been run across this gulch—one at Junction, and the other a mile above. Quartz mining is receiving more and better direct attention than ever before in this vicinity. Many miners are devoting their whole time to the development of their quartz property; and in the coming season, the rich belt of leads extending in a northeasterly and south westerly direction, across the heads of the neighboring gulches, will deserve the attention of others than "pilgrims." Worden's mill, on the Cliff extension of the Big or Crœsus lead, is finely progressing toward completion; and it will not be long before we shall know by practical demonstration whether our fifteen miles of quartz bears the same relation to all neighboring leads that the Irish girl supposed the turtle did to certain vermin, when she called it the "daddy of all bed bugs.

Another writing to the *Post* from "Pipestem Fork," says:

New lodes have been struck this winter; one, which is eight feet in width, shows the precious metal in nuggets, all over it. The Emigrant has now a shaft down some forty feet in depth, and the rock is richer than ever. Free gold can be obtained from any of the rock, and by roasting in a common fire, globules of silver can be plainly seen. When the mill gets once at work, I will furnish the returns of the amount of rock crushed and the yield per ton.

A communication in the *Post*, from Deer Lodge, says:

Quartz interests in this county are being regarded with some affection by even the most anti-quartz on the-brain people, the Butte City leads proving themselves of great richness and extent. There are some thirty loads prospected, shafts having been sunk to a depth of twenty to seventy-five feet on each. I have good authority for saying that the sum of $22,000 was offered for a claim on the famous "Rocker" lode near Silver Bow.

The Original is being developed by a New York company, and it is more than exceeding the anticipations of the lucky owners. The Alice Brown is also of great value, besides the Empire, (or "Brady," as the jumpers call it,) Vudis, Union, and a host of others, the names of which I cannot recall. From German Gulch I hear the most flattering accounts. There are about 400 miners at work, and they are all doing well. French Gulch and Silver Bow are all promising much better than it has been supposed they would, and there will be employment for a large force this season.

ESMERALDA, NEVADA.

The *Union* alludes to seeing seven bars at the express office, Aurora, from the Diana claim, at Hot Springs. The bars weighed upwards of 180 pounds, and were the result of two weeks' crushing in the company's little mill.

NEW MINING LAW.

AN ACT ENTITLED AN ACT CONCERNING PARTNERSHIPS FOR MINING PURPOSES—APPROVED.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Whenever any two or more persons being owners, occupants, or locators, of any mining claim, or when any two or more persons shall have associated themselves together, with or without any written agreement, (but not as a body corporate,) for the purpose of working or prospecting any mining claim on any of the public lands of the United States, shall, after being notified in writing by any member of said mining company that they have been associated in said mining claim, be deemed to be copartners for the purpose of prospecting or working said mining claim, and shall be subject to the provisions and liabilities imposed by this Act.

SEC. 2. After a mining claim shall have been located, any person who shall be a member of the company desiring to work said claim, may notify the other members of the company of his or their desire to have an assessment levied against the owners of said claim for the purpose of prospecting, working, or developing such claim, designating a time and place for a meeting of the members of such company for the purpose of levying such assessment; such notice shall be given as provided in the fourth section of this Act, and if a majority of the shares in such mining claim be represented at such meeting, then a majority of those present at such meeting shall be authorized to levy such assessment; but if a majority of the shares in such company be not represented at such meeting, then a majority of those present shall be authorized to cause the said mining claim to be prospected or worked, and thereafter the owners in such mining claim shall be liable for their respective proportion of the expenses so incurred in prospecting, working, or developing such claim, to the extent of the value of their interest in such claim, and thereafter assessments may be levied from time to time, not oftener than once in thirty days, by any member not delinquent of said mining company, against delinquent members for the collection of sufficient amount of assessment to pay for the working and prospecting of such claim up to the time such assessment is made, and such delinquent assessment may be collected as in this Act provided; *provided*, that when the mining companies have by-laws designating what amount of work shall be done in such claim, then any assessment made as provided in this Act shall not exceed an amount sufficient to pay for the work required by the by-laws; and, *provided* further, that no new assessment shall be made until all previous assessments have been paid, or the remedies for the collection thereof shall have been exhausted.

SEC. 3. Any member of a mining company, or his heirs, executors, administrators, or assigns, in any mining claim, who shall neglect or refuse to pay any assessments, or shall neglect to perform any labor or other liability which shall become due from him under this Act, may, after the expiration of thirty days after such assessment, labor, or other liability has become due, be notified in writing by any remaining member or members, or by his or their agent, that such assessment, labor, or other liability is due, which written notice shall specify the name of such mine and the district wherein it is located, and shall particularly mention the liability which has been incurred.

SEC. 4. Such notice, and all other notices required under this Act, shall be served as follows:

First—If the party reside in the county where the mine is located, it shall be delivered to him personally or left at his place of residence.

Second—If the party reside out of the county, but within the State, and his place of residence is known, such notice shall be deposited in a post office or express office, in a sealed envelop, with postage or express charges, as the case may be, prepaid, addressed to such party at his place of residence.

Third—If such party reside out of the State, or his place of residence is unknown, such notice shall be published once a week, for eight successive weeks, in some newspaper published in the county where the mine is located, if there be such paper, otherwise, in some newspaper published in an adjoining county.

SEC. 5. If the person so notified shall neglect or refuse to pay or discharge such assessments, work, or liability, for ten days after personal service or leaving notice at his residence, when such service has been had or notice so left, or for twenty days after deposit in post or express office of such notice, when such deposit has been made, or until the expiration of the full period of publication herein provided, when publication is made, thereafter such delinquent shall be deemed to have absolutely forfeited and abandoned to the other members of said mining company, all the right, title, claim, and interest owned, held, or possessed by such delinquent in the said mining claim, such portion thereof as shall be sufficient to satisfy such delinquency; the remaining member or members may sell the interest of such delinquent member in and to such mining claim, or so much of said interest as may be required to pay such assessment or liability, together with costs of sale.

SEC. 6. All sales under the provisions of this Act shall be at public auction at the mining claim, and shall be made by any constable of the township, auctioneer, or Sheriff of the county, and by giving ten days notice thereof by posting written notices in three public places within the mining district where such mine is located. The notice shall also specify the extent of the interest of the delinquent, and the amount of the delinquency, and the name of such delinquent member or members, at the time and place of such sale, which place shall be within the district where the mine is located, and shall commence by offering the smallest number of feet or shares in such claim for sale, and continue selling at the same time and place until a sufficient number of feet or shares is sold to pay the delinquent assessment or liabilities, and the officer selling shall execute a deed to the purchaser or purchasers, and such deed shall be received in all courts as *prima facie* evidence of the lawful authority of the officer selling, and of the regularity of all proceedings prior to the execution of the deed, and as *prima facie* evidence that all the right, title, and interest of the party delinquent has been lawfully and rightfully sold and conveyed to the purchaser, and the purchaser's title to such mining claim shall be absolute.

SEC. 7. The provisions of this Act shall also apply to all persons who have refused or neglected to sign articles of incorporation or a deed of trust in any incorporated mining company.

SEC. 8. An Act entitled an Act concerning partnerships for mining purposes, approved April 4th, 1864, is hereby repealed.

SEC. 9. This Act shall take effect from and after its passage.

The Origin of Things,

GLASS HOUSES AND THROWING STONES.—In the reign of James I., the Scotch adventurers who came over with that monarch were greatly annoyed by persons breaking the windows of their houses, and among the instigators was Buckingham, the Court favorite, who lived in a large house in St. Martin's fields, which from its great number of windows was termed the "Glass House." Now the Scotch, in retaliation, broke the windows of Buckingham's mansion. The courtier complained to the king, to whom the Scotch had previously applied, and the monarch replied to Buckingham: "Those who live in glass houses, Steenie, should be careful how they throw stones." Whence arose the common saying.

"HEAR, HEAR!"—This phrase, originally "hear him," was first used in Parliament to remind members of the duty of attending to the discussion, but gradually became what it now is, that is to say, a cry indicative, according to the tone, of admiration, acquiescence, indignation, or decision.

THANKSGIVING DAY.—In 1623, after the Pilgrims had gathered their harvest, Governor Bradford sent out a party to hunt for game, "that they might furnish themselves with an abundant feast and rejoice together, after they had gathered in the fruits of their labors." So they shot the game, cooked and ate it, and also feasted Massasoit, together with ninety of his Indians. They "thanked God with all their hearts for the good world and the good things in it," and so kept their first Thanksgiving. In 1646, the venerable Governor Bradford said: "Nor has there been any general want of food among us since, to this day."—This, we believe, is the origin and history of a festival which is soon to become a national institution.

MAKE A CAT'S PAW OF ONE.—Richardson's allusion to this phrase in his dictionary fully sustains its origin as given here. He says: "Catspaw, (common in vulgar speech, but not in writing,) the tool, the instrument, derived, probably, from the fable, in which the ape employs the cat to pick the chestnuts from the hot coals with her paw, while he is quietly cracking them."

This fable is related in a story of a cat and monkey, in a "Voyage Round the World, by Dr. John Francis Gemelli Carreri, 1695." The doctor was told by D. Anthony Machado de Brito, admiral of the Portuguese fleet in India, that in order to punish a malicious monkey, he placed upon the fire a cocoa nut, of which monkeys are very fond, and then hid himself to see how the animal would take it from the fire without burning his paws. The cunning creature looked about, and seeing a cat by the fire-side, held her head in his mouth, and with her paws took off the nut, which he then threw into the water to cool, and then ate it. Hence the saying.

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Published Every Saturday.

The title of our journal is a truthful expression of its character.

It affords a class of progressive information to the Miners, Mechanics and Professional Men of the Pacific Coast, which cannot be derived from books, or other publications.

Each Volume comprises, in reality, a book of new intelligence and facts relating to Mining, Mechanism, Metallurgy, Science and Art, developed by our rich and peculiar resources, and identical with our own industry and history.

By the encouragement of intelligent economy in LABOR and GOLD-SAVING, we shall make the PRESS a source of INDIVIDUAL PROFIT to its patrons, as well as a public benefit to every local community in which it circulates.

The prospects of our journal are now brighter than at any former period. Our facilities for furnishing a valuable paper are constantly increasing.

Following are some of the many opinions generously expressed by our neighbors:

Editorial Expressions:

The publishers intend to make it the "Scientific American" of the Pacific Coast. Every miner should have a copy of it in his cabin, for it will be filled with useful information for the pick and shovel fraternity.—[Trinity Journal.

Should be taken by every man owning "feet" [and brains] in this State.—[Beacon.

In no other ten journals can the reader find the same amount of reliable mining news as in the PRESS.—[Contra Costa Gazette.

Every stockholder in different mines will find it will pay to take and read this mining journal.—[Contra Costa Gazette.

The PRESS is to the Pacific Coast what the "Scientific American" is on the Atlantic. It deserves its success.—[Aurora Daily Times.

It is fully up to the times, and furnishes the latest mining improvements and intelligence.—[Calaveras Chronicle.

Every miner should subscribe for the PRESS.—[Calaveras Chronicle.

It presents a channel through which all mining notices may be cheaply consolidated into one sheet for the convenience of all stockholders.—[Mountain Messenger.

We can give our testimony that it is always replete with useful and valuable information to miners and mechanics.—[Placer Herald.

It contains correspondence from different sections, giving accounts of new discoveries in gold, silver and copper, and should be taken by every person that wishes to keep well posted on the developments of our State and the Territories.—[Mountain Messenger.

With the last number is an index to the whole volume, most useful and valuable to those who keep files of that paper.—[Shasta Courier.

Prof. J. D. Whitney's address on Mining, is given entire. * * * We preserve the PRESS, and would like to have a full file.—[Napa Reporter.

The public should support the enterprise of the MINING PRESS, one of the best papers in the State, by a liberal patronage, as it is only by a system of legitimate reports that our mines can be favorably brought before men of capital below.—[Calaveras Chronicle.

Under the management of Messrs. Dewey & Co., the PRESS has been much improved in every respect. * * It deserves a liberal support.—[Virginia Union.

A good paper for this country.—[Humboldt Register Nu.

Those who would have a good paper of this character should subscribe now.—[Marysville Appeal.

It embraces one of the finest fields in the world, and seems to improve it. * * * It will be second to no scientific record now published on this continent.—[Los Angeles News

A neat and useful journal. One of the most presentable and useful in the State.—[Sunday Mercury.

Such a journal has been needed on the Pacific Coast, The PRESS fills the bill.—[Reese River Reveille.

A splendid paper, and should have a good list of subscribers in prosperous Grass Valley.—[G. V. National.

We receive, regularly as clock work, this exceedingly valuable and interesting journal.—[Napa Reporter.

Interesting and important to miners and Mountain men.—[Butte Record.

Friends pleased with our efforts in the publication of the PRESS can render us essential aid by furnishing correspondence and all important information which may come under their observation, and by calling the attention of their neighbors to the commendable features of the paper; the appreciation of which favors will be duly manifested by the constant improvement of our journal.

Specimen copies will be sent free to those desiring to examine the paper before subscribing. Postmasters, Express Agents and News-dealers, acting as our agents, will receive liberal commissions.

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Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Brndshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. Elwin Davis, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:
Saturday Morning, April 7, 1866.

Look Out for Illegal Advertising!

All assessments of corporations levied on, or subsequent to, March 26th, are governed by the new law approved on that day. We notice that some of our important mining companies are advertising their assessments illegally in the daily and weekly press of this State. As the new law is more liberal in its provisions for advertising than the Act of 1864, these companies have yet time to retrace their steps and begin anew and right. We speak of the matter for the benefit of all concerned. We have prepared a set of correct blank forms for advertising assessments, which we furnish free on application at our office, together with rules for advertising and copies of the new law.

Mining Laws of 1866.

It is our intention to issue, in cheap pamphlet form, previous to May 1st, a full and correct copy of all laws relating to mining adopted by the California and Nevada State Legislatures of 1866. Some of these Acts are of vital importance to every citizen interested in mining.—April 1st, 1866.

HUESTON, HASTINGS & CO.—These fashionable clothiers are so well known in California, and in fact throughout the Pacific States, that it seems like an old story to say that they have the finest establishment in San Francisco, and are acknowledged leaders of fashion. *Our story* may be old, but *their goods* are *new*, and those who wish a stylish or becoming garment of any description, can be accommodated with a good fit, without fail, at Henston, Hastings & Co., corner of Montgomery and Sutter streets.

CORRESPONDENCE.—During the absence of our senior, we have fortunately been well assisted by our correspondents, as our paper to-day will show. We have another letter from "D" on hand, and expect another from "Prospector" next week. Mr Ewer will have something to say of Nevada county next week

THE Teachers and pupils connected with the Lincoln School, contributed the very handsome sum of one hundred and thirty dollars toward the Lincoln statue, which is to be uncovered to the public, with appropriate ceremonies, on the 15th instant.

Keith's Desulphurizing Process—Mining in Colorado.

From a communication published in the *Alta* of the 2d inst., written by a correspondent who signs himself "Argus," and dated "Gold Dirt, Colorado Territory, March 10th, 1866," we take the following:

LYON'S SMELTING WORKS,

The first ever erected within the Rocky Mountains, and, I believe, the first within the United States, for the treatment of gold, are giving great satisfaction to the proprietors. They have been paying $50 per ton for galena ores that will average 75 per cent. of lead. This was for their own use, to get litharge to be used as a flux in smelting. The process of smelting is looked upon as the very best method for treating argentiferous galena ores, and the estimated cost for suitable works (for silver ores) does not exceed $25,000. There have been extensive discoveries of silver lodes in this neighborhood, particularly at Argentine and Snake river. The latter place is west of the mountains, but so near the summit of the range that it is inaccessible during five months of the year. The ores found there are argentiferous galena, mixed with chlorides and a little antimony. If the yield should be only one-fourth as good as the assays that have been returned, it is a very "big thing." Mr. Lyon went East a short time ago, taking with him a button of bullion weighing 150 pounds. I am informed that he will endeavor to organize a strong company for the purpose of putting up smelting works for custom work in every district where there is a likelihood they could be profitably employed. If this can be carried out it will be of great benefit to miners, as custom mills are much needed.

THE GOLD DIRT LODE.

The Hope company (Baltimore capital), who last year purchased part of a celebrated lode known as the "Gold Dirt," and erected a large mill, with machinery to work the Keith Desulphurizer, at an expense of over $250,000, is cleaning up $2,000 per week, and expect to double this yield when they get all their shaking tables at work. The Keith process for desulphurizing refractory ores has cost its projectors a large sum of money, and much time and patience to perfect. It is now considered a success, and is greatly superior to anything else in the field, always excepting the old smelting process. As it bids fair to become in general use in this Territory, and is probably unknown to most of the mining men in your State, I will give you, as well as I can, a short description of the process and machinery as used at

THE HOPE MILL.

The mill is three stories high. On the upper floor, a "Blake" crusher breaks the ore to about the size of a bean. The ore thus broken passes into a ball-grinder on the floor below. This grinder is formed of a revolving iron barrel, with the staves about one-sixteenth of an inch apart. Within the barrel there is about half a ton of two pound balls to pulverize the ore until it is fine enough to pass between the staves. It is then carried by an elevator to the upper floor, where it passes on to a drying table (the top of the furnace), afterwards being scraped by a rake into a long trough, where an archimedian screw works it into an elevator, which carries it to the upper floor again. Here, after passing through a screw, it runs into an iron pipe, four inches in diameter, at one end of which is a small blower, and at the other the fire-place, consisting of a circular sheet iron stove, three feet in diameter and three in hight, lined with fire brick. This fire-place opens into a furnace. The blows before mentioned force the pulverized ore through the flames in the fire place (causing the sulphur to ignite) into the furnace, where the ore coming in continuously with flaming sparks keeps the whole mass in the furnace on fire, until all the sulphur has exhausted itself and the furnace is full. The vapors and fumes pass off through a hole at one end of the furnace, connecting with a high chimney.

The ore is then scraped out of the furnace into a vault below, and is allowed to cool. It is then carried by elevators to the second floor and fed through a hopper into small ball grinders, on the same principle described above, the balls only weighing two ounces each, of cast iron. These pulverize the ore as fine as flour, and it is afterwards put through a wire bolter (eighty meshes to the square inch) into a vat where there is a stream of water. The ore is mixed with the water by revolving combs, and the mixture then passes out of the vat by pipes on to the copper amalgamating tables, which are the shape of a washboard, and are kept oscillating by machinery. These works can, it is stated, treat forty tons of ore daily, and only require eight hands and a 15-horse power engine to run them.

MINING PROJECTS.

The success of the Lyons and Keith's methods in saving the precious metals, has caused Colorado stocks to be in a little better demand in the East, and there is every prospect we shall have lively times shortly. In a few weeks it is expected that some twenty mills will be rolling out the gold. The Naraganssett, Gunnell, and Smith & Parmelee mills are doing well. The Black Hawk company, one of the strongest in the Territory, will soon have sixty stamps going on the old process, intending afterwards to smelt the tailings in works they are going to build for that purpose. The local papers almost daily report sales of mining property in the East, and sometimes in Europe. Many of these, I am afraid, are not founded on facts, or are greatly exaggerated before they reach the sanctums of the purveyors for the press. It is not likely that many large sales will be effected before some good dividends make their appearance.

Inventions for desulphurizing ores have become surprisingly numerous of late. Unfortunately, however, most of them show a lamentable ignorance of chemical and metallurgical facts, and are as inadequate and worthless, as their inventors are positive and sanguine.

It requires some *time*, as well as full exposure to the oxidizing influence of the air at a suitable temperature, to effect a proper decomposition of the metallic sulphurets, and if the period during which each portion of the ore is exposed to such an influence, be no longer than the descriptions yet given would lead us to infer must be the case in Keith's process, the amount of desulphurization effected will naturally be very small. The arsenical, and particularly the antimonial ores, which are not uncommon in Nevada, are still more difficult of decomposition than the simple sulphurets. The introduction, too, of pulverized ore into a furnace by means of a *blast*, and the strong currents of air thus produced, must of necessity entail a large mechanical loss in the finer portions of the ore, which would be carried up the chimney; a loss that would be unavoidable without the use of expensive condensing apparatus, and which, with rich concentrated sulphurets, would be very great indeed.

The invention, however, has at least the merit of not basing its fundamental claims upon the direct desulphurizing powers of steam or *carbon*.

We should be glad to learn more fully the details of the Keith method, as well as the various processes now being introduced for smelting the richer silver ores of Nevada and Colorado. Any reliable information respecting these processes, and the character of the ores treated by them, will be thankfully received by us.

LECTURE ON LIFE.—Mr. John Quincy Adams will lecture at the First Presbyterian Church, Stockton street, on Tuesday evening, April 10th, at eight o'clock. He has chosen as his subject:

LIFE.—The lecturer first dwells upon the abstract idea of Life; and from the works of creation, displayed in the Garden of Eden, deduces the consideration of the general and essential existence of the principle of life in Nature. It shows that Art imitates this principle; Mythology deifies it, and in it we behold the evidence of the being of a Creator. Associated with these ideas, are those of change and Death, considered in the abstract. The third principal division of the subject treats of Human Life; which it reduces to its elementary divisions and subdivisions, namely, the Physical, Mental and Spiritual Existence, with a review of their leading incidents. The concluding consideration is that of the Perfect Life, of which the Saviour was the type, and shows that in Him we live and have Eternal Life.

Mr. Adams is a member of the Society of California Pioneers, and the Young Men's Christian Association, of this city. He came from New York to this State when a child, in 1846, arriving here after a six months' voyage by sea, in March, 1847. He was one of the pupils of Mr. J. C. Pelton's first public school, in 1849, and has grown up with the city.

The object of the lecture is to assist the speaker in the completion of his collegiate course at the Benicia Law School. He has the hearty co-operation of several prominent clergymen, and from our own acquaintance with the young gentleman, we consider him both able and worthy, and trust he will meet a complete success. Tickets of admission for gentlemen and ladies, one dollar; single tickets, fifty cents.

NEVADA MINT.—Work will soon be commenced on the new United States Branch Mint, at Carson City, Nevada. Senator Nye telegraphs that the plans, etc., have been forwarded by mail.

MINING PARTNERSHIPS.

The new law concerning mining partnerships, published in to-day's issue, was introduced in the Assembly by Mr. Singleton, of Sierra. It elicited much attention in the Legislature during its passage, and was several times amended, and its provisions extended. Doubtless, by the perversions of selfish and dishonorable men, the law will work hardships to some owners in some instances, yet we are not without faith that, upon the whole, it may prove generally beneficial. It will certainly put an end to the practice that has long been prevalent, of one mean, contrary member of a company holding back and debarring the majority from proceeding with their prospecting. It will also cause men to be more careful who they take into copartnership with them in mining enterprises. Under the new partnership law, persons who enter into mining association with various parties should select associates of tried honor and virtue, or they will in the end get badly burned, frozen, or smoked out. In our opinion the law is too unlimited. Every owner in unincorporated mines should become familiar with it. We are satisfied that many miners will accept Mr. Singleton's law with favor. It will certainly accelerate mining, and soon put in operation hundreds of mines that are now lying dormant. The number of incorporations will likewise be increased. Upon a closer examination we shall speak further of the provisions of this act.

THE KNOX AMALGAMATOR.—This pan, an illustration of which is advertised in to-day's issue, has proved one of the most successful inventions in mining machinery. If we mistake not, it now stands the pioneer amalgamator at present in use in California and Nevada. Its cheapness in first cost, and its simplicity of operation are among its strong points, while another of its best recommendations lies in the fact that practical millmen repeat their orders for the Amalgamator and Separator, frequently using them in connection with pans of later pattern and invention. Mr. Knox has but few equals in his experience and intelligence in quartz mining and ore reducing, in either California or Nevada, and both the inventors and manufacturers of Knox's Patent Amalgamator and Separator, have well earned an envious reputation among those best informed of their merits.

FROM IONE, NEVADA.—A friend writes: My interests or business here, at this time, do not call me much out into the hills, but having a small but very rich sample of ruby silver presented to me the other day, I was led to the mine to see how easy it is to take out from the "Great Eastern," on London Hill, tons of good ore, since they have struck it big and rich. I could speak with good encouragement of several ledges doing well in furnishing good milling ore. We have two very important machines now before our miners here, viz., the Gardner crusher and Guiod's Crocodile. The latter is a very voracious chap, devouring, and I should say thoroughly digesting, a ton of quartz in 45 minutes. Many say it is a perfect success.

But of far more interest to us, as miners, is the Austin invention of a machine roaster to desulphurize and chloridize ore. [A description of the furnace, above named, will be found in another column.]

THE present yield of petroleum in the Eastern states, is estimated at 12,000 barrels per day, of which 11,415 barrels come from Pennsylvania alone.

ANTIDOTE FOR POISON.—If arsenic (ratsbane) is taken, swallow the white of an egg. If acid poison is taken, such as aquafortis, sulphuric acid, prussic acid etc., swallow soda and water or saleratus and water, or any alkali. Salt and mustard taken in warm water will vomit immediately.

FOURTEEN tons of rock from the Allison Ranch lead was crushed last week, which paid the sum of seventeen thousand dollars. It seems the longer they work this mine the better it pays.

NEW PUBLICATION.

ANNOTATED CATALOGUE of the principal species hitherto recognized in California and the adjoining States and Territories; being a Report to the California State Board of Agriculture: By William P. Blake, Geologist of the California State Board of Agriculture, and professor of Mineralogy, Geology, and Mining, in the Department of Science of the College of California: March, 1866.

This catalogue, just published, forms a pamphlet of thirty-two pages, and gives prominent localities of about one hundred different mineral species, together with short descriptive remarks upon the method of occurrence, and the character of the samples, yielded at the various localities named. It also contains a list of the principal publications, already extant, bearing upon the mineralogy and geology of California, together with notices of various mineralogical collections, both public and private, in this State; and several pages of interesting notes by the author upon the geographical distribution and general geology of the precious metals and valuable minerals of the Pacific Slope.

Prof. Blake has already contributed much in this direction, and we welcome the report, here noticed, as an important addition to our available knowledge of the mineralogy of California.

New York Metal Circular.

NEW YORK, March 2d, 1866.

TIN has declined without any business of consequence. We quote Straits, 25, Banca, 26, and English, 23½ to 23¾ cts., gold. Part of the arrivals of Straits from the East Indies had been sold previously. The importations for the month are 900 slabs Banca, 8,300 slabs Straits, (6 600 from the East Indies,) and 90 tons English.

SPELTER has been quiet, with a retail business only. We quote 6⅞@7 cts. gold. The imports for the month are 300 tons, and the stock 600 tons.

COPPER has been very unsettled. In the middle of February a few forced sales of Lake were made at 34½@35 cts., but this low price attracted speculation, and 500,000 to 600,000 lbs. Baltimore were sold at 35½@36 cts. The quotation was then 36 cts. for this kind, and 37 for Lake, but during the last few days sales have been made at lower prices. The bulk of the stock is not offered, and it is difficult to give reliable quotations. A parcel of 50 tons Chili Copper, imported from England, was sold on private terms.

The unfavorable advices from England contributed to the dullness of our markets, but it seems not unlikely that the lowest point has been reached there.

The last mail from Chili reports the blockade of Caldera raised, and the port of Valparaiso alone was not open at latest dates. Operations at the mines are represented as very much curtailed, and there seems to be no doubt that the supplies from the West Coast will fall short during this year.

LEAD has been very dull. Manufacturers have scarcely bought anything, as they are still supplied by their own importations. Small parcels of Spanish and German have been sold as low as 6½ and 6⅜ cts., gold. The better kinds of English are still held at 6¾ cts., gold.

The importations for the month are 2.300 tons; the deliveries for consumption are estimated at 1,500 tons, and the stock at 3,500, against 5,500 tons on March 1, 1865, and 800 tons on the same date 1864.

WINTERHOFF & Co.

San Francisco Prices of Copper Ores.

SAN FRANCISCO, April 6, 1866.

We give the following as an approximate price at which copper ores can now be sold in this city. There is no sale for ores which assay less than 12 per cent:

	Per ton.		Per ton.
12 per cent. ore	$24 00	22 per cent. ore	$65 35
13 " "	28 50	23 " "	69 10
14 " "	33 00	24 " "	72 90
15 " "	37 50	25 " "	77 20
16 " "	40 80	26 " "	80 70
17 " "	45 10	27 " "	85 00
18 " "	49 40	28 " "	89 10
19 " "	53 70	29 " "	93 25
20 " "	58 00	30 " "	97 50
21 " "	61 70		

To calculate the value of ors which assays 30 per cent. and upwards, multiply the per centage by $3 25, and you have the price which will be paid. For instance—suppose you have ore which assays 35 per cent—multiply 35 by $3.25, and you have $113.75 as the value of the ore. These prices, we believe, will be found substantially correct, and can always be realized.

IN 1865, the shipments of corn from Chicago reached 40,000,000 bushels.

HEUSTON, HASTINGS & CO.,

—THE—

FASHIONABLE CLOTHIERS

OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLES

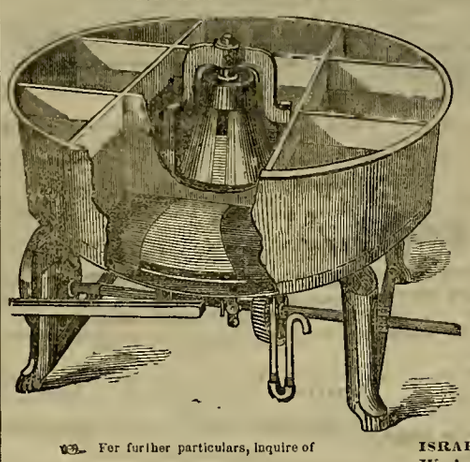
—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12-3m 🖙 At Reduced Prices. 🖘

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALGAMATOR and Separator that has stood the test of NEAR YEAR'S practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

3d. The "slosbing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

🖙 For further particulars, inquire of ISRAEL W. KNOX, or W. A. PALMER, Inventors,

14v13-p12q At the Golden Gate Iron Works, No. 19 First street, San Francisco.

LIST OF OFFICERS OF CORPORATIONS AND MINING COMPANIES.

[PUBLISHED IN THE FIRST ISSUE OF EACH MONTH.]

[Below we give the date of recent meetings held in this city and the names of officers chosen or appointed. Every bona fide company is invited to send us the result of their election, to be thus put on record, gratuitously, with any other facts of general interest.]

DANEY G. & S. M. Co.—March 5th. Trustees: W. W. Palmer, W. B. Johnston, Ed. Martin, A. Pavillier, E. J. Pringle, C. Collischom, Ed. Balley. President, W. W. Palmer; Secretary, A. Noel; Treasurer, Bank of California; Superintendent, W. W. Palmer.

SIEMPRE VIVA SILVER M. Co.—March 26th. Trustees: P. H. Canavan, Charles Meinecke, B. Lefevre, Thomas Taylor, M. Scholl. President, P. H. Canavan; Secretary, John F. Lohse; Treasurer, C. Meinecke; Superintendent, E. Leya.

RECENT INCORPORATIONS.

TEMPLE SPRING PETROLEUM Co., located in Los Angeles county, California.—Capital stock, $240,000, divided into 2,400 shares of $100 each. Trustees: Chas. L. Low, A. C. Niehols, Ira P. Rankin, Natbaniel Page, and Francis De Loug.

GRAHAM G. & S. M. Co., located in Santa Cruz county, Cal.—Capital stock $200,000, divided into 2,000 shares of $100 each. Trustees: Washington Meeks, Milo Calkin, J. R. Sproul, W. B. Swain, and B. G. St. John.

YUMA M. Co.—Principal place of business is San Francisco. Capital stock, $20,000, divided into 200 shares of $100 each. Trustees: R. W. Kirkbam, Irwin McDowell and George F. Hooper.

IMPORTANT NOTICE.—In another column will be found an advertisement forwarded to us from New York, by the Wurtz Amalgamating Company, cautioning persons from infringing upon Wurtz's patent, by manufacturing and using sodium amalgam. The specifications and claims of this patent will soon be published in the MINING AND SCIENTIFIC PRESS.

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

SUBSCRIBERS who do not receive the MINING AND SCIENTIFIC PRESS in due time, are requested to inform the publishers.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 80¼	$ 81
Gov. Legal Tender Notes	78¾	79
State Bonds, 7 ℘ cent	85	86
San Francisco 10 ℘ cent	..	..
San Francisco Bonds, 1855, 6 ℘ cent	71	..
San Francisco Bonds, 1858, 6 ℘ cent	69	..
Sacramento City Bonds, 6 ℘ cent	..	..
Sacramento County Bonds, 6 ℘ cent	58	60
Marysville Bonds, 10 ℘ cent	75	100
Stockton Bonds, 10 ℘ cent	60	65
Yuba County Bonds, 10 ℘ cent	80	85
Butte County Bonds, 10 ℘ cent	75	78
California Navigation Co	55	57
State Telegraph Stock	32	35
San Francisco Gas Co	..	..
Sacramento Gas Co	..	75
Spring Valley Water Co	68	70
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	50	..
Central Railroad Co	..	..
North Beach and Mission	59	60
MINING STOCKS.		
Ophir	$ 745	$ 750
Gould & Curry	1015	1030
Empire M. & M. Co	2.0	205
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....
Savage	1055	1060
Chollar Potosi	390	392
Hale & Norcross	9.5	940
White & Murphy	....	....
Sierra Nevada	....	10
Yellow Jacket	862	865
Overman	68	70
Cedar Hill Tunnel	....	....
Wide West	....	....
Crown Point	1400	1410
Antelope	....	....
Emeralda	1	5
Aetna	....	....
Real del Monte	....	....
Bullion, G. H.	116	117
Buckeye	....	....
Dick Sides	....	....
Imperial	130	141
Alpha	430	460

CAUTION.

TO WHOM IT MAY CONCERN:—THE PUBLIC ARE hereby notified that a patent was allowed, December 27th, 1864, and issued June 27th, 1865, to PROFESSOR HENRY WURTZ, for the use of sodium and amalgams thereof with quicksilver, in the extraction of precious metals from their ores. All persons using said amalgams, or purchasing or selling sodium or said amalgams for use in the treatment of gold or silver ores, are hereby cautioned that they will be prosecuted to the full extent of the law.

The patents of Professor Wurtz have been assigned to the Wurtz Amalgamation Company of New York city. It is the intention of the said company soon to appoint agents for California and the other mining States and Territories. In the meantime, applications for licenses to use sodium and its amalgams, may be addressed to the company, at their office, No. 57 Broadway, New York.

C. ELTON BUCK, Secretary.

March 9th, 1866. 14v12-6t

Its correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco. [Nye County News.

Oakland Water-Cure.

APRIL 1ST, 1864, WE OPENED A HYGIENIC BOARDING House and Ladies' Health Institute in Oakland. The great advantage we have experienced since that time, in the treatment and cure of all those diseases peculiar to females, as well as those common to all, over that of San Francisco, induced us to give up the treatment of gentlemen in the city. We have accordingly removed our entire Bathing, Electro-magnetic, and Gymnastic Apparatus, which we used especially in the treatment of mates, to our Health Institute across the Bay, and have found, after a trial of seven months, that gentlemen as well as lady patients recover, at our Fountain Farm Cure, one-third faster than in the city of San Francisco. The climate here is the most even and bracing to be found in the State. The grounds command a view unsurpassed in the world. The Institution is furnished with an abundance of pure, soft water, from numerous springs; and we now offer to Ministers, Teachers, Lawyers, Miners, Merchants, Mechanics, Farmers, and all other worthy persons, who desire to try the advantages of the only *rational* system of medicine, the hospitalities of our Hygienic Home and Cure. Young men who have become debilitated or lost their health by excessive toil, exposure, or enervating habits, contracted through ignorance of Physical Laws, may with us find more of the encouragements they need, and means that will restore them to health, than elsewhere in California.

We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that it is followed by none of those debilitating diseases, such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, Intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Urethal Strictures, etc., which we well know result from the free use of mercury and other metallic drugs, together with stimulants and vegetable poisons given to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in the facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any like establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douch Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to miners, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Mercurial, Lead, and Oak Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have yet used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, retorting metals, the malaria of rivers and low marshy grounds. Where there was a fair constitution left, even when drugs had been applied for months and years without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflammatory and Mercurial Rheumatism; Paralysis; Lung, Bronchial and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Enlarged Scrotum, Piles, Inflammation of the Bowels, Chronic and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is so favorably situated to furnish so many home comforts and hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only truly healthful boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the medication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in the bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institutions, both in Sacramento and San Francisco, has induced us to make this class of human afflictions a specialty of our Institution. We have treated (mostly in the cure), over 300 females, several of whom had been "bedridden" for months and years, and all have been decidedly benefited, and with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

There is not one female invalid in twenty that has been suffering from nervous debility or diseases peculiar to her sex, that cannot be permanently cured by spending from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn of a single regret from husband or wife of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1853.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a legal Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has lectured successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo Therapeutic College.

To all whom it may concern:

I have known Dr Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as an honest, faithful delineator of character, and as such can cheerfully recommend him to the public.

For the good of Science.

L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

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Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

OIL IN COLORADO,—The Denver *News* chronicles the finding of large quantities of oil in that State. It says: We have every reason to belive, from the indications and discoveries made, that portions of our Territory are as rich in petroleum as the celebrated Pithole District in Pennsylvania. Near Cacyon City, a well is now yielding twenty-four barrels per day of the best quality of "green oil." This well is only seventy-five feet in depth, and is the only well that has been sunk for oil in the Territory. Some others are going down, but none have as yet reached any conciderable depth.

PRACTICAL EDUCATION.—Among the novelties recently added to the Santa Clara College, says the San Jose *Mercury*, is a printing press, with a fine assortment of new type. The mechanic arts are now carried to a greater extent in this college than any other institution of the kind in this country. Electrotyping, daguerreotyping, telegraphing, practical assaying, engineering, printing, and various other arts and sciences are thoroughly taught. Two companies of cadets are also thoroughly trained in military tactics.

THE TERM COPPERHEAD.—It is perhaps worthy of interest, as settling any controversy that may arise, that the word "Copperhead" was first used in a political sense by Mr. John Russell Young, now of the *Tribune*, in a letter from Washington to the Philadelphia *Press*. This occurred in August, 1861.

THERE is a lump of gold in Washington, dug from the Montana mines, worth $17,000.

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NEW MORMON TABERNACLE.—The building is in the form of an ellipse, with an extreme length of 259 feet, and width of 150. Extreme hight of roof 78 feet, hight of ceiling 68 feet. The immense roof-frame rests upon 44 cut stone piers, about 12 feet apart and 20 feet in hight, which gives 48 feet of spring to the arch. The 44 bents, or principal rafters forming the arch are composed of six thicknesses 2½ inch plank, framed like lattice-work, strongly pinned and bolted, and tied by fifteen horizontal cross-timbers on the outside, upon which the small rafters for the sheeting will be lain, and fifteen similar cross timbers inside, to which the ceiling-joists will be stayed. The thirteen half bents resting upon the thirteen piers in curve at each end, join diagonally upon the apex of the arch of the two outside parallel bents.

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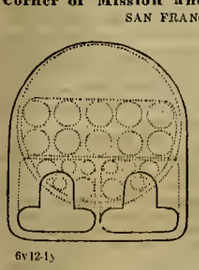

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FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;
JONVAL'S IMPROVED WATER WHEEL;
LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Railing, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

GEORGE T. PRACY,
MACHINE WORKS,
Nos. 109 and 111 Fremont street, near corner of Mission,
OPPOSITE MECHANICS' MILL,
SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL
And Quartz Machinery, Printing Presses,
—AND—
MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

Special attention paid to Repairing. qy-3

D. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!
Corner First and Mission streets,
SAN FRANCISCO.

ESTABLISHED IN 1849.

HAVING INCREASED OUR FACILITIES IN EVERY Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckard's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's improved Tractory Curve Pan, Zeuss Wheeler's improved flat bottom pan, Beldin's pan, Veatch's tubs, Prater's concentrators, Wahlee's pans, Beers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.
21v10 **H. J. BOOTH & CO.**

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LEWIS COFFEY & RISDON,
Steam Boiler & Sheet Iron Works.

THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.

Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

PALMER, KNOX & CO.,
Golden State Iron Works,
Nos. 19, 21, 23 and 25 First Street,
SAN FRANCISCO.

MANUFACTURE ALL KINDS OF
MACHINERY,
STEAM ENGINES AND QUARTZ MILLS
DUNBAR'S IMPROVED
Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S
NEW GRINDER AND AMALGAMATOR
HEPBURN & PETERSON'S
AMALGAMATOR AND SEPARATOR,
Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,
WITH PALMER'S PATENT STEAM CHEST,
Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

FULTON
Foundry and Iron Works.
HINCKLEY & CO.,
MANUFACTURERS OF
STEAM ENGINES,
Quartz, Flour and Saw Mills,

Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

Miners' Foundry
—AND—
MACHINE WORKS,
First St., between Howard and Folsom Streets,
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EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

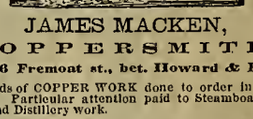
Steam Engines and Boilers, Flour, Saw and Quartz Mills,
Machinery, Mining Pumps, Amalgamators,
Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KING.



JAMES MACKEN,
COPPERSMITH,
No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to. 13v11

SAN FRANCISCO
Foundry and Machine Works,
N. E. Cor. Fremont and Mission streets,
Manufacturers of
Marine and Stationery Engines
Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.
—ALSO—
Wine, Cider, Cotton and Tobacco Presses
of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Salmon's Patent Amalgamator and Separator; Wheeler & Randall's New Grinder and Separator; Baux & Guiod's Amalgamator and Separator; W. W. Tupper's Patent Sectional Grate Bar; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston-Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,
Bought, sold, or exchanged. Bolt Cutting and Castings, at the lowest market rates.

6v11-1y **DEVOE, DINSMORE & CO.**

City College Laboratories,

Southeast Cor. Stockton and Geary sts.

Practical and Analytical Chemistry and Metallurgy.

THOMAS PRICE,

Professor of Chemistry,

(Formerly of the Normal College, Swansea.)

WILL GIVE PRACTICAL INSTRUCTIONS IN QUALITative and Quantitative Analysis and Assaying. The course qualifies students for the application of Chemistry to METALLURGY, MANUFACTURING ARTS, and MINING PURPOSES.

PHARMACEUTICAL and TECHNICAL CHEMISTRY, such as is required by Medical and Pharmaceutical Students, will be taught to such students as may require it.

Course of General Chemistry.

Evening Lectures will be delivered every Tuesday, at half-past seven o'clock, P. M., in the Philosophical Hall of the College, without extra charge to the students in the Institution.

On and after the 14th of February, the Laboratories will be open every day, except Sundays, from 8 A. M. to 5 P. M. For further particulars, address

REV. P. V. VEEDER,
Principal of the City College.
6vI2tf Or at 406 California Street.

SANTA CLARA COLLEGE, S. J.,

SANTA CLARA, CAL.

Conducted by the Fathers of the Society of Jesus.

The FIFTEENTH ANNUAL SESSION of this College will commence on

Monday, August 28th, 1865.

TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months.....$350

For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.
3vII REV. A. MASNATA, S. J., President.

SACRAMENTO SEMINARY.

BOARDING SCHOOL

FOR YOUNG LADIES,

Tenth Street, between F and G.

Session commenced January 8, 1866.

MR. AND MRS. HERMON PERRY,
7vI2tf **Principals.**

Benicia College.

THE TWENTY-SECOND SESSION HAS JUST OPENED. Pupils received at any time.

The Instruction is divided into three parts—The Elementary course; the English, or Scientific Course; and the ordinary College Course.

Pupils generally, and especially those in the Preparatory Departments, board at the Institution, under the direct charge of the Teachers.

For further information, send for Circular.
3vI2-3m **C. J. FLATT, Principal.**

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLature of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION ANO FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:
Fire.....$12,973,940
Marine.....481,408

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm Hooper,	Lloyd Tevis,
Anson G Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Frenery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	T. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings, J. G. Kellogg,		

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

BUY

The Monthly Series

—OF THE—

MINING AND SCIENTIFIC PRESS.

Send it to Your Friends.

Issued at the close of EACH Month.

PRICE..... 50 CENTS.

1852. 1866

A NEW VOLUME.

Fourteenth Year of Publication.

THE GOLDEN ERA.

Founded in 1852.

The oldest Weekly Paper in the State, permanently established, and more widely circulated at home and abroad than any other on the Pacific Coast. In California, the Atlantic States, and throughout the entire field of its great and rapidly increasing circulation, THE GOLDEN ERA is universally regarded as a Literary and Family Journal of unequalled excellence. Among its contributors are all the best writers on this side of the Continent, and correspondents and contributors of distinguished ability in New York, Paris and London.

Miss BRADDON'S Greatest Sensation Story published from Advance Sheets:

RUPERT GODWIN;

—OR—

The Secret of Wilmindon Hall.

A NOVEL.

By Miss M. E. Braddon,

Author of "Lady Audley's Secret," "The Outcasts," "The Doctor's Wife," "Three Times Dead," etc.,

—IN—

THE GOLDEN ERA.

NOW IS THE TIME TO SUBSCRIBE!

THE GOLDEN ERA is now enlarged by the addition of eight columns to its pages—and presents fifty-six columns, containing the greatest possible variety of Valuable and Entertaining, Original and Selected Matter, all combining to render THE GOLDEN ERA a Literary and Family Journal of surpassing interest and attraction; a Welcome Guest in Cottage and Cabin—the favorite at the fireside in City and Country, the most useful, agreeable altogether desirable publication for California readers and their kindred and friends in the Atlantic States, Europe, and elsewhere. Every Household in the Mountains and Valleys, the Cities, Towns, and Mining Camps of California and throughout the Pacific States and Territories, should receive and welcome THE GOLDEN ERA as a regular weekly visitor.

Serial Romances in The Golden Era.

The most popular Novels of the present day published as Serials, from week to week, in the GOLDEN ERA, from advance sheets, simultaneously with their appearance in the English and Atlantic Periodicals.

Among the contributors to the GOLDEN ERA are all the prominent writers of Literary Repute in California and on the Pacific Coast, also correspondents and contributors of distinguished ability in the Atlantic States and Europe, comprising an array of Talent and Genius unapproached by any Literary Journal in California, the Atlantic States, or Europe.

"THOUGHTS AND THINGS"

APPEAR WEEKLY IN THE GOLDEN ERA.

Read "Thoughts and Things" in the GOLDEN ERA.
" Professor Clearquill," in the Golden Era.
" Dogberry," in the Golden Era.
" Alice Mason," in the Golden Era.
" Hugh Humphrey," in the Golden Era.
" Bill Dadd," in the Golden Era.

SUBSCRIBE FOR THE GOLDEN ERA.

One Year.....$5 00 Six Months.....$2 50

To Mail Subscribers.

THE GOLDEN ERA for One Year.....$5 00
THE GOLDEN ERA for Six Months.....$2 50
THE GOLDEN ERA for Three Months.....$1 55

Sent from the Office to any Address in California and Oregon—Nevada, Washington, Idaho, Utah, Montana, and Colorado Territories—the Atlantic States, Europe, and all parts of the World.

Take care to write distinctly the name of the person, the name of the city, town or locality where the post office is situated, and the name of the County and State, in order that the paper may be fully and accurately directed to every address.

AGENTS in every part of the State receive subscriptions for the GOLDEN ERA.

POSTMASTERS in California, Oregon, and neighboring Territories, obtaining subscriptions for the GOLDEN ERA and forwarding the same, with name and address of the subscriber, will be allowed a very liberal commission therefor.

Liberal Terms to Clubs.

Three copies, one year.....$12 00
Five copies, one year.....$18 00
Ten copies, one year.....$35 00

Now is the Time to Subscribe.

TO ADVERTISERS.

Best Advertising Medium.—The Golden Era is the oldest Weekly Journal in California, and indisputably enjoys by far the largest circulation in the city of San Francisco and in the interior of the State.

THE GOLDEN ERA

Is universally read in every city, town, village and mining and agricultural precinct in California, and offers unusual and unequalled advantages to those who desire to bring their business prominently before the community. Only a limited space is devoted to advertising. All advertising pages are also largely occupied with fresh and interesting reading matter, and no advertisement can escape attention. The charges for advertising are not so large, proportioned to the benefits derived, as those of other papers. Liberal terms will be made with those who advertise for three or six months, or by the year.

BROOKS & LAWRENCE,

GOLDEN ERA BUILDING,
No. 543 Clay street, near Montgomery, San Francisco.

FIRST PREMIUMS!

FOR PRINTING,

AWARDED AT THE

MECHANICS' INDUSTRIAL EXHIBITION,

SAN FRANCISCO, 1865,

—AND AT THE—

State Fair at Sacramento, 1865,

—TO—

DEWEY & CO.,

BOOK AND JOB PRINTERS,

PUBLISHERS OF THE

MINING AND SCIENTIFIC PRESS,

—AND—

CALIFORNIA YOUTH'S COMPANION,

505 Clay street, San Francisco.

The FIRST PREMIUM, a diploma, was awarded Messrs. Dewey & Co., by the Mechanics' Institute, for the best samples of NEWSPAPER PRINTING.

The FIRST PREMIUM was also awarded by the State Agricultural Society to Messrs. Dewey & Co., for the best specimens of BOOK PRINTING exhibited at the State Fair, held at Sacramento, September 1865.

JOB PRINTING of all kinds correctly and quickly done, at the office of the YOUTH'S COMPANION, 505 Clay street, corner of Sansome, by
16tf **DEWEY & CO.**

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Arroyo Seco Copper Mining Company, No. 1.—Location: Amador County, California.

NOTICE.—The annual meeting of stockholders of the above named company, for the election of Trustees, to serve for the ensuing year, will be held on THURSDAY, the 19th day of April, 1866, at one o'clock P. M., at their office, 415 Montgomery street.

R. WEGENER, Secretary.
San Francisco, April 3d, 1866. ap7

Batopilas Mining Company, Batopilas District State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of April, 1866, an assessment (No. 2) of twenty-five (25) cents per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 311 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 10th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.
Office, 311 Montgomery Street, San Francisco, Cal. ap7

Eagle Quartz Mining Company—Location of Mine and Mill: Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
J P Bush	10	100	$100 00
J S Calef	78	100	100 00
J S Calef	77	50	50 00
J S Calef	78	50	50 00
J S Calef	136	55	55 00
J S Calef	180	121	121 00
Mrs H S Calef	181	40	40 00
J A Carrie	bal on 163	155	155 00
Hudson, H S	61	10	10 00
Francis Kirk	182	5	5 00
Isaac Rowell	8	25	25 00
Eli Schell	173	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of John Middleton & Son, 404 Montgomery street, San Francisco, on the 25th day of April, 1868, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.
Office, No. 10 Exchange Building San Francisco, Cal.

Hancock Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States Gold and Silver Coin, to the Secretary, S. S. SWEET, No. 611 Market street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 8th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.
Office, No. 611 Market street, San Francisco, Cal. ap7

Kentucky Copper Mining Company, Mine Felix District, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 2d day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable on the 3d day of April, 1866, in United States gold and silver coin, to the Secretary, at his office, 644 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 5th day of May, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 30th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. A. BAUER, Secretary.
Office, 644 Washington street, San Francisco, Cal. ap7

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 31st day of March, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 305 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 5th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. S. LUTY, Secretary.
Office, 305 Montgomery street, San Francisco, Cal. ap6

Mosquito Quartz Mining Company.—Location of Works: Calaveras County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 3d day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
A Borel	53	5	$25 00
A Borel	220	39	195 00
D Davidson	117	5	25 00
T Goodchaux	167	12	60 00
Robert Irwin	134	1	5 00
B Levy	75	2	10 00
R R Maurice / J Percy	201	1	5 00
F Rollet	192	2	10 00
H Schmitt	178	5	25 00
H Schmitt	194½	5	25 00
P Torrie	111	4	20 00
P Torrie	112	4	20 00
P Torrie	113	2	10 00
G Touchard	228	15	80 00
F J Wilson	222	4	20 00
S M Wellhoff	109	2	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 3d day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 826 Montgomery street, San Francisco, Cal., on the 28th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

E. H. WATERS, Secretary.
Office, 536 Clay street. ap7

North Star Gold and Silver Mining Company, Reese River Mining District, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 31st day of March, 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately to the Secretary, OOTTLIEB BEER, at his office, No. 226 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 30th day of April, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

OOTTLIEB BEER, Secretary.
Office, No. 226 Front street, San Francisco, Cal. ap7 4w

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Ambrose Hinds	33	25	$12 50
Ambrose Hinds	34	10	5 00
Ambrose Hinds	35	10	5 00
Ambrose Hinds	36	5	2 50
Jacob Wissing	140	5	2 50
M C Keyes	142	7	3 50
M C Keyes	187	3	1 50
Sidney Lemon	150	15	7 50
S F Wallace	174	10	5 00
L T Smith	183	5	2 50
J G Stover	220	25	12 50
J G Stover	221	25	12 50

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of March, 1888, so many shares of each parcel of said stock as may be necessary, will be sold at the salesroom of Maurice Dore & Co., 327 Montgomery street, San Francisco, on the 25th day of April, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

GEO. H. PECK, Secretary.
Office, Corner Broadway and Sansome streets, San Francisco. ap7

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

SUBSCRIBE FOR IT.—The large, illustrated sixty four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

Mining Notices—Continued.

New Mining Advertisements to be found under another heading.

Beard & Seaver Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco mar17

Blue Ledge Gold and Silver Quartz Mining Company, Kelsey District, El Dorado County, California.

Office, No. 10 Government House, corner of Sansome and Washington streets, San Francisco.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of one dollar ($1.50) and fifty cents per share on each and every share of the capital stock of the Blue Ledge Gold and Silver Quartz Mining Company, was levied, payable immediately, in United States gold coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, at 12 o'clock M. of that day, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

mar17 J. M. BUFFINGTON, Secretary.

Cosala Silver Mining Company, District of Cosala, Sinaloa, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of the Cosala Silver Mining company, held on Saturday, the 24th day of March, 1866, at the office of the company, an assessment of one dollar ($1) per share was levied on each and every assessable share of the capital stock of said company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the company, No. 510 Battery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Thursday, the 26th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 12th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

CHAS. BAUM, Secretary.

No. 510 Battery street, opposite the Custom House, San Francisco. mar31

Comet Petroleum Company, Mattole District, Humboldt County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the twenty-second (22d) day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
S M Balch	1	25	$7 50
S M Balch	23	50	15 00
Warren J Chapman	2	12	3 60
R L Holman	3	13	3 90
George J Hughston	4	25	7 50
George J Hughston	5	25	7 50
George J Hughston	24	50	15 00
James Gilbert	9	10	3 00
James Gilbert	18	10	3 00
W H Cummings	11	25	7 50
W H Cummings	12	25	7 50
W H Cummings	22	50	15 00
James T Watson	13	25	7 50
James T Watson	21	75	22 50
Jas W Low	15	50	15 00
C E Webber	28	50	15 00
J T Westheimer	27	40	12 00
Geo W Menamy & Co	28	100	30 00
M B French	34	50	15 00
Wm Green	35	50	15 00
R H Hall	37	25	7 50
J T Dean	38	100	30 00

And in accordance with law, and an order of the Board of Trustees, made on the 22d day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., on the 14th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

L. CROSBY, Secretary.

Office, 36 Exchange Building, northwest corner Montgomery and Washington streets, San Francisco. mar31

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of February, 1888 the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Adams, Geo G	215	5	$ 7 50
Adams, Mary E	15	10	15 00
Andrews, M O	not issued	100	150 00
Brayteo, J G	102, 103, 104, 105, 127, 128, 129, 130 131, 222, 223, and 224	10-ea	120 180 00
Braytou, J G	108	4	8 00
Brayton, J G	225	2	3 00
Berry, Harrison	101	25	37 50
Booker, W L	255	10	15 00
Bolts, John	271	1	1 50
Boggs, Geo W	137	6	9 00
Boggs, A G	87	11	18 50
Bowland, Wm	241	5	7 50
Bill, Jonathan	38	5	7 50
Burk, John	238	10	15 00
Brown, Thos	234	10	15 00
Bradbury, Wm	159	5	7 50
Breed, T L	not issued	75	112 50
Coon, M R	110 and 111	25-ea	50 75 00
Coon, M R	114	5	7 50
Cone, Harriett E	19	5	7 50
Cook, A J	93	10	15 00
Clark, J Warren	not issued	10	15 00
Clark, Sarah A	122	5	7 50
Clark, Miriam	124	25	37 50
Clark, P A	115	5	7 50
Clark, P A	116 and 117	1-ea	2 3 00
Clark, P A	119 and 121	4 ea	8 12 00
Clark, P A	120	3	4 50
Cornwell, J F	82 and 83	10-ea	20 30 00
Coulter, Samuel	141	10	15 00
Calderwood, Mathew	109	10	15 00
Carmichael, A	230, 231, and 232	10-ea	30 45 00
Carmichael, A	233	9	13 50
Custer, John	238	5	7 50
Coue, Jesse R	18, 133 and 134	10-ea	30 45 00
Coue, Jesse B	136	5	7 50
Cheeney, A W	not issued	110	165 00
Denning, Wm	168	10	15 00
De Graff, Wm	142, 143, 144, 145 140 and 216	10-ea	60 90 00
Davidson, Ole	57	5	7 50
Dutton, David	214	4	0 00
Dutton, David	210, 220, 242 and 243	10-ea	40 60 00
Egan, E D	140	2	3 00
Elsworth, Wm	180	5	7 50
Grigsby, T L	99	10	15 00
Grigsby, A D	100	10	15 15
Grigsby, E D	77	10	15 00
Grigsby, R F	109	10	15 00
Gillam, Jas	73 and 74	10 ea	20 30 00
Green, Joseph	218	10	15 00
Griswold, M T	not issued	85	127 50
Hargrave, E J	170	5	7 50
Hayward, C C	45	5	7 50
Hammett, E W	204	10	15 00
Hackney, H W	137	5	7 50
Hastie, Robert	209	10	15 00
Hill, V R	69, 70, and 71	5-ea	15 22 50
Hughes, James	179	2	3 00
Hughes, James	292	3	4 50
Hendrickson, Henrietta	200	5	7 50
Herbert, Henrietta	20	10	15 00
Kather, Chas	00	15	22 50
Kercheval, Sarah A	240	10	15 00
Luciani, Charles	90	15	22 50
Linn, Geo	263	10	15 00
Lindau, A	257	5	7 50
Lawrence, F S	not issued	90	135 00
McLea, Donald	27	1	1 50
Mudgett, John	261 and 262	5-ea	10 15 00
Mott, Hiram	258	13	19 50
Mercer, Susan	98	10	15 00
Mylett, James	227 and 228	10-ea	20 30 00
Mylett, James	229	8	12 00
McGee, Jas	78	5	7 50
Mecklenberg, Joseph	272	5	7 50
Miller, G A	91	10	15 00
Marks, M	160	5	7 50
Mnson, Chas	254	5	7 50
McGill, Wm	41	5	7 50
Mosher, Wm H	139	5	7 50
McDonald, A C	184	7	10 50
McGrath, J J	not issued	80	90 00
Nelson, J G	56	5	7 50
Nelson, A G	55	1	1 50
Nelson, Christopher	92	0½	10 50
Pearson, I N	198	21	31 50
Pearson, I N	199, 200, 201, 212 and 213	5 ea	25 37 50
Phillips, W L	92	15	22 50
Phillips, W L	215	10	15 00
Pilkington, J B	75 and 76	20-ea	40 00 00
Pilkington, J B	77	8	12 00
Potter, J C	97	5	7 50
Phelps, Tracy F	not issued	65	97 50
Ransdell, S W	245	5	7 50
Roberts, J R	279	6	9 00
Robinson Chas F	not issued	25	37 50
Squarza, V	107	5	7 50
Severson, T	not issued	4	6 00
Sedgley, Jas T	not issued	105	157 50
Townsend, T B	87	10	15 00
Vann, Mathew	131	5	7 50
Vick, J	235	10	15 00
Whitton, C J	238	10	15 00
Whitton, M S	185, 180, 187, 188, 189, 190, 191, 192 193, 194, 195, 190	10-ea	120 180 00
Whitten, M S	291	7	10 50
Whitton, Wm H	204, 205, 206, 207 237, 238, and 249	10-ea	70 105 00
Whitton, Wm H	287	5	7 50
Whitton, Green	84, 85 and 86	10-ea	30 45 00
Whitton, E	95	10	15 00
Whitton, Wm T	214	10	15 00
Wyckoff, J L	274	10	15 00
Williams, Samuel	89	30	45 00
Williams, Samuel	280	5	7 50
Woodward, E P	111	10	15 00

And in accordance with law, and an order of the Board of Trustees, made on the said 20th day of February, 1888, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of Olney & Co., No. 626 Montgomery street, on the 10th day of April, 1888, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. mar24

Good Hope Gold and Silver Mining Company, Alpine District, Alpine County, California.

On and after April 23d, 1866, the Office and principal place of business of the above Company, will be located in the town of Markleeville, Alpine County. By order of the Board of Trustees.

PRESTON MORRIS, Secretary.

San Francisco, March 23, 1866. mar24-3w

Harker Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Jefferson Gold and Silver Mining Company, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 14th day of March, 1866, an assessment of fifty cents (50) per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Froot street, San Francisco. mar17

Julia Gold and Silver Mining Company, Virginia, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, the several amounts hereafter set opposite the names of the respective shareholders on account of assessment of one dollar ($1) per share levied March 1st, 1866, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Sewall, G T	114	20	$20 00
Mitchell, J A	5	25	25 00
Mitchell, J A	6	25	25 00
Mitchell, J A	7	25	25 00
Mitchell, J A	8	25	25 00
Knox, A C	17	10	10 00
Frisch, J G	71	50	50 00
Frisch, J O	72	14	14 00
Taylor, Thos	73	50	50 00
Taylor, Thos	74	13	13 00
Roichel, Wm	75	50	50 00
Reichel, Wm	76	13	13 00
Pinchard, L	44	20	20 00
Pinchard, L	45	20	20 00
Pinchard, L	48	15	15 00
Pinchard, L	47	15	15 00
Pinchard, L	48	15	15 00
Pinchard, L	49	10	10 00
Pinchard, L	50	10	10 00
Pinchard, L	51	10	10 00
Pinchard, L	52	10	10 00
Gaillard, C	105	10	10 00
Lanthemme, L	100	10	10 00
Lagoarde, B	109	20	20 00
Thomas,	111	10	10 00
Montgomery, E L	113	5	5 00
Ford, J N	116	25	25 00
Levy, Louis	117	10	10 00
Haas, S	118	10	10 00
McCormick, Wm	122	10	10 00
McCormick, Wm	123	10	10 00
Long, C	146	10	10 00
Long, C	157	10	10 00
Aussus, Victor	1-3	10	10 00
Van Lokeren, H	1-0	20	20 00
Romand, J F	163	12	12 00
Lemarie, F	184	14	14 00
Sweetzer, A J	168	12	12 00
Felix,	23	25	25 00
Gager, Jas H	4	25	25 00
Carmichael, J	10	25	25 00
Carmichael, J	11	25	25 00
Carmichael, J	12	25	25 00
Carmichael, J	13	25	25 00
Yates, L F	15	10	10 00
Leduc, M	154	10	10 00
Jolthois, J	36	20	20 00
Vivier, J N	38	20	20 00
Gillet, N J	54	10	10 00
Gillet, N J	58	5	5 00
Gillet, N J	59	5	5 00
Gillet, N J	106	15	15 00
Gillet, N J	167	10	10 00
Colman, Mrs	83	10	10 00
Lamolle, J	99	13	13 00
Lamolle, B	100	25	25 00
Lamolle, B	101	25	25 00
Lamolle, B	102	15	15 00
Pratolongo, L	06	10	10 00
Pratolongo, L	103	30	30 00
Page, F	115	10	10 00
Colman, N J	119	15	15 00
Colman, N J	120	10	10 00
Colman, N J	121	10	10 00
Plank, F	149	10	10 00
Plank, F	150	10	10 00
Plank, F	151	10	10 00
Pezet, J W	155	10	10 00
Colman, A F	158	10	10 00
Ricard, Joseph	185	14	14 00

And in accordance with law, and an order of the Board of Trustees, made on the 1st day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, on the 16th day of April, 1868, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. NOEL, Secretary.

Office, 607 Washiogton street, San Francisco. mar31

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of ten (10) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, at the office of the Company, or to Geo. H. Russell, at Crescent City.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

C. HEYWOOD, Secretary,

mar17 No. 311 Market street.

Madison Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Monitor Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of seventy-five cents per share was levied upon the Capital Stock of said Company, payable immediately in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Monday, the 30th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco mar17

Oregon Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 14th day of March, 1866, an assessment of twenty five (25) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Tuesday, the 1st day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Old Colony Gold and Silver Mining Company. Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 8th day of March, 1866, an assessment of four (4) dollars per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, No. 523 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees

H. O. HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco, secon floor. mar10

Pride of the East Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 13th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Friday, the 27th day of April 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Santa Cruz Petroleum Oil Works Company, Location: Santa Cruz County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of March, 1866, an assessment (No. 15) of fifty cents per share was levied upon the capital stock of said company, payable immediately, in United States gold coin, to the Secretary, R. Wegener, 415 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 28th day of April, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal. mar17

Silver Cloud Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 13th day of March, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, San Francisco.

Any stock upon which said assessment shall remain unpaid on Saturday, the 14th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Friday, the 27th day of April. 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. mar17

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 24th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Barbe, Jos	414 to 410	10-ea	50 $60 00
Barbe, Jos	417	5	10 00
Berges, P	34 and 35	5-ea	10 20 00
Brown, J M	143 and 374	5-ea	10 20 00
Brown, J M	385	3	6 00
Brown, J M	388	7	14 00
Cohen, Wm	172	12½	25 00
Cohn, Simon & Bro	298	10	20 00
Crachet, Felix	348 to 350	10-ea	30 60 00
Crachet, Felix	351	5	10 00
Fischer, Wm	375	10	20 00
Fischer, Wm	378	20	40 00
Fischer, Wm	377	5	10 00
Sauffignon, Jules	410	3	6 00
Sole, Gaspard	300	17	34 00

And in accordance with law, and an order of the Board of Trustees, made on the 24th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 14th day of April, 1868, at the hour of 12 o'clock M. of said day, to pay said delinqneot assessment thereon, together with costs of advertising and expenses of sale.

P. R. RINGSTROM, Secretary.

Office, 210 Pine street, up-stairs, San Francisco. m31

Postage.—The postage on the MINING AND SCIENTIFIC PRESS to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents.

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A RECENT number of the Calcutta *Gazette* contains an account of an ærolite, which fell at Sherogtty on the 25th of August last. A native who witnessed its fall states that about 9 A. M. a stone fell from the heavens, accompanied by a very loud report, hurying itself in the earth knee deep, and at the same time the sky was cloudy and of a murky color, the air calm, and no rain. The stone has heen forwarded hy the Government to the Asiatic Society of Bengal.

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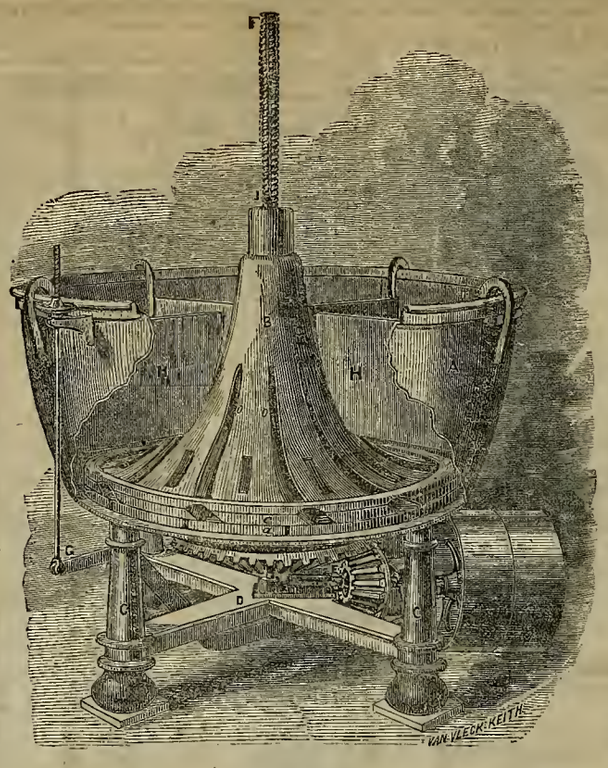

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and o, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been furnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

LICK HOUSE,

Corner of Montgomery and Sutter streets,

SAN FRANCISCO.

S. ALSTROM AND G. S. JOHNSON, Prop'rs.

This elegant and commodious Hotel is situated on the principal promenade street of San Francisco. The Lick House is finished and furnished with a degree of beauty and excellence unsurpassed, combining all the modern applications and arrangements of a FIRST CLASS HOTEL, thus offering superior inducements to the traveling public. The proprietors assure their patrons that the Lick House shall not be excelled in any of its appointments, or in polite attendance or attention to all the comforts of its guests.
15v11

BRANNAN HOUSE,

(Formerly Vernon,)

J street, between Front and Second streets,

SACRAMENTO.

FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m **MRS. J. DUNN, Proprietress.**

INTERNATIONAL HOTEL,

K Street, between Third and Fourth,

SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

WHAT CHEER HOUSE,

SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals.....25 cents.
Board, per week.....$4 00
Board and Lodging, per day.....1 00
Single Rooms.....50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m **A. J. SENATZ, Proprietor.**

The Excelsior Hat

—OF—

SAN FRANCISCO.

Paris, New York and London Styles

For Spring and Summer, 1866,

Will be introduced

SATURDAY.....MARCH 3

—AT—

MEUSSDORFFER'S

Hat Manufactories,

Nos. 635 and 637 Commercial street.....San Francisco
No. 125 J street.....Sacramento
Corner D and Second streets.....Marysville

OUR STYLE IN MOLESKIN, for this season, is, we feel confident, the SUPERLATIVE OF ELEGANCE AND FINISH; our MERINO PINAUD and ST. CLOUD the most successful result of Parisian taste.

Especial attention also deserve our

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CHESTER,
CRESCENT,
NEWPORT,
DERBY, and
CLARENDON RESORTE.

☞ Call and see them. 9v12-3m

Economy in Advertising.—The MINING AND SCIENTIFIC PRESS is the best and most ECONOMICAL mining advertising medium in this city. Our terms are less than ONE HALF the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The PRESS contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,

No. 602 Montgomery street, San Francisco.

EXCLUSIVE AGENT

—FOR THE—

AMERICAN

WATCH FACTORY.

A large assortment of these

Superior Watches,

In Gold and Silver Cases,

Constantly on hand, and sold at Factory prices. Also,

ENGLISH AND SWISS WATCHES,

Imported directly from the Manufacturers.

The American Company are now making

VERY FINE WATCHES FOR LADIES.

☞ A large assortment of Gold Chains and Jewelry. 23v10-6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

CALIFORNIA CLOTH,

CLOTHING MADE FROM

For Wholesale and Retail Trade,

ALSO, CLOTHING MADE TO ORDER,

AT QUINCY HALL,

Nos. 545, 547 and 549 Washington Street,

SAN FRANCISCO, CAL.

19v13m

It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid.—[Nye County News

JOHN TAYLOR & CO.,

IMPORTERS,

AND DEALERS IN

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco, March 6, 1865. 11v10-tf

CHARLES BERNARD,

MANUFACTURER AND DEALER IN

Family Chartres Coffee,

AND SPICES OF ALL KINDS,

No. 707 Sansome street, cor. Gold, bet. Jackson & Pacific.

First Premium Awarded

BY THE MECHANICS' INSTITUTE,

FOR BEST COFFEE AND SPICES.

The proprietor having introduced steam power in his Manufactory, has now increased facilities to supply the trade and the public in general. All articles from his establishment are guaranteed to be pure and unadulterated. The public are respectfully invited to call and convince themselves. Country orders promptly attended to.
15v11-3m

WE ARE NOW OFFERING

OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LOW PRICES.

J. R. MEAD & CO.,

8v10 Cor. of Washington and Sansome streets.

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

BEGINNING EARLY.—The San Andreas *Register* says that an instance of youthful enterprise is evinced in "Little Charlie Sharp and Tommy Irvine, boys about twelve years old, who have been at work for the last week or two sinking a shaft on a claim they have located near town. The little fellows have built them a whim, and got it as scientifically as old miners. They have a pretty little shaft down about fourteen feet. They think they will strike the bed-rock soon, and expect to make their 'pile.'" Those youths will yet prove an ornament to the county which rears them.

A REASON.—'Mother,' said little Ned, one morning after having fallen out of bed, 'I think I know why I fell out of bed last night, it was because I slept too near where I got in.' Musing a little, while as if in doubt whether he had given the right explanation, he added, 'No, that wasn't the reason; it was because I slept too near where I fell out.

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Snggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the MINING AND SCIENTIFIC PRESS. 19v11tf

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1861, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

A Good Financial Weekly.

The Stockholder:

MONITOR OF FINANCE AND INDUSTRY,

Is published every Tuesday Morning,

At 72 William street, New York,

—GIVING—

Quotations of all important Bonds and Stock Securities in the United States; GOVERNMENT, STATE, CITY, BANK, INSURANCE, PETROLEUM, MINING, and other miscellaneous Joint-Stock Organizations, with the Financial Statements of the same; Notices of Payment of Interest and Dividends—

fact, all matters that can be of interest to Security-holders.

Its columns will be found replete with important and useful financial information.

The Quotations given are correct, and may be relied upon either for the purchase or sale of Bonds or Stocks.

THE STOCKHOLDER is the *only strictly financial paper published in the United States.*

TERMS, FIVE DOLLARS PER YEAR.

All letters should be addressed,

GEO. M. NEWTON, Publisher,
5v12tf 72 William street, New York.

Machinery.

EXCELSIOR DOUBLE ACTING
Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind-mill, horse, or steam-power.

No. 1—Cylinder 2¾ in., stroke 6 in.
No 2—Cylinder 3 in., stroke 7 in.
No 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylin er 5 in., stroke 15 in.
No 5—Cylinder 6 in., stroke 18 in.
The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,
12v12-3m 120 Front street,

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th.

[Illustrated in the Mining and Scientific Press, April 9th, 864.]
HEPBURN & PETERSON.
nov8 3m*

McCOMB'S
CUMULATIVE POWER PRESS
AND
ARROW TIE.

E. C McCOMB, Agent.
No. 1 Government House, cor. Sansome and Washington sts.
23v10 3m*

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERATION daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste tree gold and amalgam is amalgamated on the copper plates; not a particle of mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

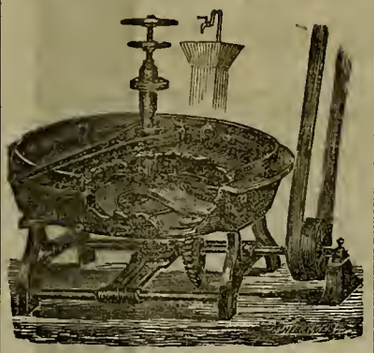
5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not ran empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see it to test the machine with.

Give it a trial, and satisfaction is guaranteed All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIODS
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separaters, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIODS Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crail's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6d†

TO PLACER MINERS AND OTHERS.

Bent Tube.

Little Giant.

BREARS'
Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE,

No. 320 Pine street.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 245 First street, San Francisco.

LIST OF PRICES:

LITTLE GIANT.		BENT TUBE.	
Brass	$65	Iron, 4 in dl	$100
Iron	60	" 3 in. dl	75
		" 2 in. dl	50
		1½ in. dl	35
		Brass, 1 in. dl	25

13-v12

LEFFEL'S
American Double Turbine
WATER WHEEL.

THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction whenever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall Let us know how much water you have either in miner's inches or cable feet per minute, what fall you have, and what power you require Write or send for circular to

KNAPP & GRANT,
—ALSO— San Francisco.

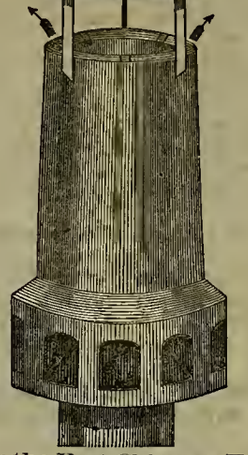
Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind.

For sale by **KNAPP & GRANT,**
12v12-3m San Francisco,

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE FOR STATES, TOWNS AND COUNTIES.



For the Best Chimney Top

Ever invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel. Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee, **B. A. HENRIKSEN,**

Or J. E. JOERGENSEN,
12v12 3m No. 328 Kearny street. San Francisco.

The Mechanics' Institute
AWARDED A
PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.

Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
12v11 416 Market street, San Francisco.

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of **Quartz or Ores**

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,
Box 2077 San Francisco Post Office.
CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the **PACIFIC FOUNDRY,**
1v1 San Francisco.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)
MANUFACTURED AT THE
San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

Stevens' Pressure Packing.

Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

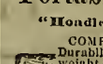
Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df **ANDREW STEVENS.**

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of Weight and Price.



These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by **TREADWELL & CO.,**
3v12 3m Corner of Front and Market streets.

PETROLEUM STOVES.

A **MOST USEFUL INVENTION FOR ALL** manner of COOKING and for IRONING, without any litter, as ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Cooking by them is divested of its disagreeableness, and becomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,
Proprietors for California.
San Francisco, March 3d, 1866. 10-v12

FOR SALE
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to **HEYNEMANN & CO.,**
26v11tf 311 and 313 California street.

PAGE'S PATENT
—FOR—
RAISING SUNKEN VESSELS!

SHIPPING AND INSURANCE COMPAnies, and other parties upon this coast or in the Atlantic States, having occasion to avail themselves of this invention, which has been tried, and proved a success, will please address, for the present, JOSEPH DEVINNEY, 1523 Stockton street, San Francisco.

AUSTIN Z. PAGE,
12v12-tf Patentee.

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

McAULEY & CHENEY'S PATENT

HYDRAULIC HOSE COVERING, OR SEAMLESS ROPE HOSE.

This is a new article, made by machiuery constructed for the purpose. The cordage used in its manufacture is made expressly for us by Messrs. Tubbs & Co. of this city, from the best Manila hemp.

As the Rope Hose Covering is formed without seam, ou an iron mandril or accurately turned cylinder, it is of perfectly equal size or diameter throughout its whole length. Owing to the peculiar manner of its construction, by which the ropes are twisted together and firmly held in place at each poiut of intersection, it is utterly impossible for the hose to get out of order or burst, even with the most careless handling, or from being caved on or sluiced out. Nor is there any chance for gravel to get in between the roping and canvas hose, as frequently happens with the ordinary roped hose. A single thickness of 000,000 duck hose inside our rope covering is sufficient to stand a pressure of three hundred feet, and can be made to stand a much greater pressure, if required. Old canvas, or hose that is worthless from age to use in the ordinary mauner, will last and be quite as serviceable as new canvas, for two or three years longer, if covered with our Rope Hose Covering.

The Rope Hose is made a little smaller than the duck hose, so as to take all the straiu. With this hose there is no possibility of collapsiug or bursting the inside hose, as frequently happens with even the most carefully made cauvas hose when of more than one thickness of canvas.

The Rope Covering will last from four to six years. It can be drawn on over ordinary canvas hose, either old or new, with as much ease as drawing one canvas hose over another.

DISTRIBUTORS with from two to six Gates.

HOSE PIPES with different sized Nozzles.

Orders for any of the above articles, or other Mining Apparatus, will receive immediate atteution. Address

J. L. MOULTHROP, Miners' Foundry, San Francisco.

LEAD AS AN AMALGAMATOR.—We give the following, taken from the *Weekly Mining Journal* as an additional commeot upon the molten lead process noticed last week:

It comes to us through a source which we deem reliable that—in short, read the following, and mark the fallacy of most human hopes and expectations: A competent assayer took ten dwts. of Bobtail blanket tailings, which it is well known have no lead in them, the same having been run through molten lead at Kip & Buell's mill, and as the results of an assay for lead, got three and one-half dwts. of that metal, about thirty-five per cent. He theo took an ounce of the same tailings, as they came from the stamp mill, and an ouoce that had been run through the molten lead, and as the result of an assay for gold and silver, got at the rate of one hundred dollars to the ton from each, there beiog no perceptible difference in the amount of gold and silver obtained from the two samples, one of which had passed through hot lead and the other had not. We give this publicity in the hope that further experiments may be made of the same kind. If the above results shall be confirmed, this spending of time and money oo what is called "the molten lead process," will be obviated, and it cannot be donc too soon. We repeat, that we have not the slightest reasoo to doubt the foregoing statemeuts with regard to the assays.

OUR NEW YORK AGENCY.

Mr. GEO. M NEWTON is our authorized agent in New York City, and will receive advertisements and subscriptions for the MINING AND SCIENTIFIC PRESS at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "STOCKHOLDER," **No. 72 William street.**

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, Mr. TURNER HAMILTON, at the Assembly Building, 106 South Tenth street, Philadelphia, Pa., where samp copies of our publications can always be found.

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the miniug interests of tha Pacifia Coast.—[Nye County News.

QUARTZ OPERATOR'S

HAND BOOK

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,

Authors and Publishers.

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THE QUARTZ OPERATOR'S HAND BOOK is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the miue and mill. We have here all the most necessary hints aud directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

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Professor Sillimau, of Yale, aod Hodgson, of tha College of Califoraia, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engiaeer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

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The Table of Conteats of this book will be found on pa 415 of the MINING AND SCIENTIFIC PRESS of July 1st, 1865.

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SAN FRANCISCO, SATURDAY, APRIL 14, 1866.

VOLUME XII. Number 15.

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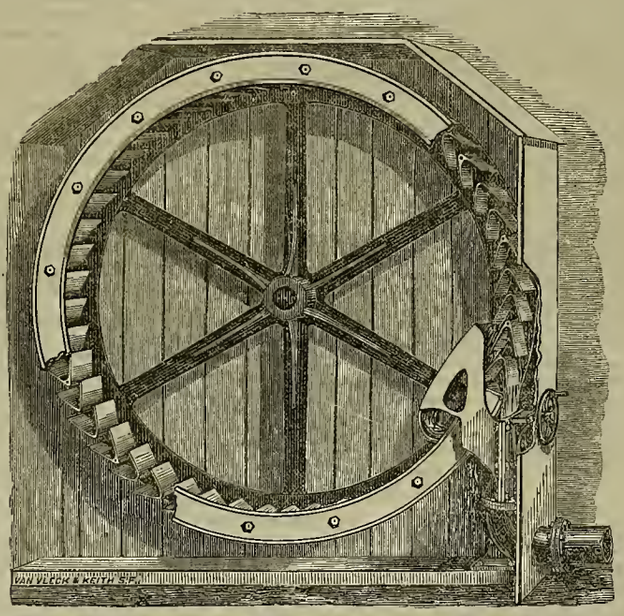
WONDERS OF THE ATMOSPHERE.—The atmosphere rises above us with its cathedrul dome nrching toward heaven, of which it is the most perfect synonym and symbol. It floats around us like that, grand object which the apostle John saw in his vision—"a sea of glass like unto a crystal." So massive is it that when it hegins to stir, it tosses great ships like playthings, and sweeps city and forest like snowflukes to destruction before it. And yet it is so mobile that we have lived for years in it before we eun be persuaded that it exists at all, and the great bulk of mankind never realize the truth that they are bathed iu an ocean of air. Its weight is so enormous that iron shivers beforo it like glass, yet a soap bubble sails through it with impunity, and the tiniest inseet waves its aside with his wing. It ministers lavishly to all our senses. We touch it not, but it touches us. Its warm south wind brings back color to the pale face of the invalid; its eool west wind refreshes the fevered brow und nukes the blood mantle to our cheeks; even its north blast braees into new vigor the hardened children of a rugged climate. The eye is indebted to it for all the magnificence of sunrise, the brightness of midday, the chastened radiance of the morning, and tho clouds that eradle near the setting sun. But for it the rainbow would want its trinmphant areh; and the wind would not eend its fleecy messengers on errands around the heavens; the cold ether would not send snow feathers on the earth, nor would drops of dew gather on the flowers. The kindly rain would never fall, aor hail-storm nor log diversify the face of the sky. Our naked globe would turn its tanned and unshadowed forehead to the sun, and one dreary, monotonous bluze of light and heat dazzle and burn up all things. Were there no atmosphere, the evening sun would in a moment set, and without warning, plunge the earth into darkuess. But the air grasps in her hand a shield of his rays, and lets them slip through her fingers so that the shadows of evening are gathered by degrees, and the flowers have time to bow their heads, and each creature space to find a plaee for rest, and to nestle to repose. In the morning, the garish sun would at one bound burst from the bosom of aigbt and blaze above the horizoa; but the air watches his eoming, and sends first but one little ray to another, and then a handful; and so gently draws aside the eurtain of nigbt, and slowly lets the light fall on the face of the sleeping earth, till her eye-lids open, and like a man she goes forth again to labor until evening.

A LARGE OIL TANK.—Messrs. Brewer, Burke & Co., of Pitsburg, Peun., are ereeting an iroa oil tank capable of holding 12,000 barrels.

TANGENTIAL TURBINE WATER WHEEL.

The annexed illustration represents what is known as the tangentiul turbine, or hurdygurdy water wheel, with a reaction guide, whereby the water having onco impinged upon tho buckets of the wheel, is mude to react upon succeeding buekets until the force of the rush of water is entirely exhausted, eo that it drops quietly from the wheel by the mere force of its gravity. The construction of the wheel may be distinctly seen iu the engraving. The water is seen to rush in, through the conducting pipe, with a veloeity and impulse due to its head. After striking the buckets and passing into the inner side of the eircumference of the wheel, it will be observed to be so directed in its motion as to again receive an upward direetion, striking the buckets at a point below tbe place of first contaet, when it imparts the whole of the power remaining in the water after its first impulse.



TANGENTIAL TURBINE WATER WHEEL.

The wheel is now ia successful operation at Hydliff's Mill, in You Bet; at the Empire Tunnel Company, French Corral; at the Crœsus Silver Mill Company, Kearsage; at the Clear Creek Company's Mill, in Tulare county, and other places. It gives a high percentage of work for water eonsumed; is exceedingly simple in its construetion, and eosts but little, in comparison to most water wheels. It is particularly applicable for high falls, and where the water caa be eonveyed along and down mountain sides, by means of pipes, as in hydraulie mining. The wheel is manufaetured at the Miners' Foundry in this city. A wheel eight feet in diameter eosts but $500, and is estimated to be capable of performing the following duty: With—

80 feet fall and 94 inches water, miners' measure.				
100	"	75	"	"
125	"	60	"	"
150	"	50	"	"

it will run a mill of 10 stamps, eaeh 650 pounds, 85 drops per miuute, and 11 inehes eaeh drop. With—

175 feet fall and 85 inches water, miners' measure.				
200	"	75	"	"
250	"	60	"	"
300	"	50	"	"

it will run a mill of 20 stamps, each 650 pounds, 85 drops per minute, and 11 inches eaeh drop. The wheel is furnished of different sizes to suit the wishes or necessities of the purchaser.

BULLION FROM GOLD HILL.—The Gold Hill *News* says: "The amount of bullion shipped from the Gold Hill Express office, for the month of March last, amounts to $590,123.89. For the quarter ending March 31st, 1866, the shipments reached $1,397,659.70! Thus, it is manifest that no less than five millions of raw silver and gold will be dug out and exported from this little burgh during the year 1866. These are items for the desolate, and torture points for the eroakers."

AN INTERESTING FACT.—During our reeeat visit to the mines of Grass Valley and Nevada, a very interesting fact eame under our notice, to the effect that all the distinetive features which are so observable in the mines for the first 150 or 200 feet in depth, disappear beyond that depth, and that the veinstoae thereafter presents a uniform eharacter; so much so, that when speeimens from the lower levels of the deepest mines arn thrown together promiscuously, it is almost impossible to distinguish the one from the other. On visiting the Sneath & Clay mine, at Nevada, we fouad the same eharaeteristie to prevail; the veinstone of that miae being quite indistinguishable from that from aay of the deep miaes of Grass Valley. The solitary exception notieed is in the Norambagua, below Grass Valley. The only mine, we believe, in Nevada eounty earrying any notieeable quantity of arseaical pyrites.

GREAT BRITAIN alone produces one-third of all the iron product of the world.

SODIUM AMALGAM.—Our readers will find a very interesting letter on the eecond page of the preseut issue, in relatinn to the discovery of the use of sodium amalgam in working gold ores. The letter eontains a brief aecount of tho discovery and the most eesential portion of the specifications of the patenten. It will be seen that among the advantages etaimed for the amalgam is that of faeility of packing and transporting the solid amalgam. In this connection, we would etate that two or three experiments, of whieh we are eognizant here, would eeem to iudicate that when this solid amalgam is expoeed to the aetion of the air, the sodium gradually oxidizes, and the solid soon melts into a liquid mase, eurrounded by eaustie soda. If there is not some simple means of preventing this aetion, it will bn impoesible to transport mercury thus, in the eolid state, withtont packing it in nir-tight vessels. We should be glad to know bow Mr. Wurtz ohviates tbis difficulty. Further and *careful* experiments are needed, and many points conneeted with the application and nse of the sodium amalgam. It is a subject that well deserves to be thoroughly and practically investigated, and we shall be happy, at any time, to reeeive and publish the results of *careful* and *reliable* experiments in relation to it.

THE UNION AMALGAMATOR.—We would call the attention of millmen, and others, to the advertisement of the Union Amalgamator, whieh appears in our columne to-day. But little effort hns heretnfore been made to introduee thie pan to public notiee; yet all whn have used it, so far as we have learned, unite in pronouneing it highly effieieat, both ae an amalgamator and as a triturator. It is so eonstructed as to be run with great speed, presenting a double grinding surface, revolving in opposite directions; whieh motion effeets a thorough mixiag of the pulp, and admits of n speed three or four times ae rapid as pans where the motion ie single. By this arrangement great eeonomy in weight of metal, cost and epace is secured. It is probably more readily and easily eleaned up than any pan in use. It may be seen in operation every day at the San Francisco Foundry (Devoe, Densmore & Co.), eorner of Mi-sion and Fremont streets. Millmen and others interested in euch machinery visiting this eity, will do well to eall and examino tbis pan and witness its operation at the place above designated.

THE STANDARD SOAP CO., of this city, manufaeture a most excellent artiele of washing powder, said to excel anything of the kind in use; and to eontain nothing that will injure the finest fabric. It also possesses the merit of working equally well in either hard or soft water. It is much more eonvenient for uee than soap, either hard or soft. It is for sale by the grocers generally, so that a trial of its virtuee may readily be made by any one deeiring to do so. See advertisement in another column.

TO CORRESPONDENTS.—"Progress" is welcome; we should be pleased to hear from him often. Another letter from our regular correspondent "D." next week. "O. W. E." and "R. P." will appear.

Sodium Amalgam---Wurtz's Patent.

The American *Journal of Science* for March, contains the following interesting letter addressed to Professor Silliman by Henry Wurtz, of New York, the discoverer and patentee of the use of sodium amalgam for extracting the precious metals from their ores:

In the opinion of yourself and others upon whose judgment I rely, the time has arrived for the promulgation of the discoveries made by me, now many years since, of certain new properties of the alkali-metals, rendering them of value in the amalgamation of ores of the precious metals.

You are aware that, pending the repeated investigations which I have conducted upon this important subject, I have made communications of my results, both oral and written, from time to time to many persons, yourself among the number; but that until the latter part of the year 1864, no final step was taken to place these discoveries before the public in a tangible form. On the 27th of December, 1864, a patent of the U. S. Government was granted to me for specified modes of applying the said discoveries; the specification having been at my request retained on file in the Patent Office for six months (as the new patent law permits); so that the expiration of the term of this patent did not commence until the 27th of June, 1865.

It appears, however, that my frequent communications had led to wide discussion of the remarkable phenomena involved, phenomena which I seldom hesitated to exhibit, even to the most casual acquaintances, taking only the precaution of silence as to the agent employed (the sodium); and the inevitable consequence has been the occupation of other minds with the subject, both here and abroad. In fact, since the issue of my patent, I am informed that several applications (necessarily fruitless) have been made at Washington by others for patents covering some or all of my uses of the alkali-metals; and an English patent has been procured in the name of the eminent chemist Wm. Crookes, dated August 12, 1865 (about eight months subsequent to the filing of my specification at Washington); of the specification of which I have procured a copy, and find it to present a remarkable similarity to my own. Moreover, I frequently find allusions and statements relating to this subject, generally more or less imperfect and obscure, in the public prints throughout the world.

It has clearly, therefore, become incumbent upon me—if only as a matter of justice to the mining community and others interested—to furnish authentic information as to what has actually been done, and what it is proposed to do. I have, therefore, prepared an abstract of my specification, embodying in a condensed form such portions of its substance as appear of present importance to miners and metallurgists.

Other portions of the subject-matter of the specification will form a sufficiently voluminous, and I hope interesting, topic of a future communication; as, for instance, my new modes of preparing amalgams of the alkali-metals in large masses with any desired rapidity, safety and economy; and which you, with other chemical scientists who have witnessed its operation, deem important in a purely scientific view; as involving novel phenomena, and illustrating molecular laws obscurely seen at present.

With a few explanatory observations, which seem needed, I shall conclude. I have found it necessary, for practical purposes, to prepare three different grades of the sodium amalgams, from each other in their proportions of sodium, about as the numbers 1, 2 and 3; and which I designate accordingly.

A few lines, also, regarding the term "magnetic amalgams," which not a few will deem fantastic, and as suggesting unauthorized analogies. I hope to show, however, at some other time, that in applying the term I have followed the dictates of reason, and even the direct path of the modern leaders in cosmical dynamics, the apostles of the doctrine of correlation of physical forces; and that the analogical element which I find is between attractive and repulsive antagonistic force which exerts a *chemical*, or rather an *elementary discrimination* between bodies at *insensible* distances, and the antagonistic force of magnetic attraction and repulsion, which is so eminent an example of a similar elementary discrimination, though at *sensible* distances also. No one (to offer an illustration nearly, though not quite perfect) doubts the intimate relation between radiated and convected heat, although the one propagates itself throughout the universe of space, whilst the other is susceptible only of diffusion throughout insensible distances, from molecule to molecule.

More of this, however, hereafter. The term, from its convenience alone, will doubtless come into extensive use, as a technical term, among those who are most concerned in the utilization of the magnetic amalgams.

39 Nassau St., New York, January 15, 1866

SPECIFICATION.

My invention consists: In imparting to quicksilver * * a greatly enhanced adhesion, attraction, or affinity for other metals and for its own substance; by adding to it one of the highly electro-positive metals * * sodium, potassium * * etc.

My invention * * is applicable:

1st. In all arts and operations in which amalgamation by quicksilver can be made available to separate or extract gold, silver or other precious metals from their ores.

* * * * * *

3d. In all operations in which amalgamation by quicksilver, in conjunction with reducing metals, such as iron or zinc, can be made available in recovering metals from their soluble or insoluble saline compounds; such as silver from its sulphate, chlorid or hypo-sulphite; lead from its sulphate or chlorid; gold from its chlorid or other solution.

* * * * * *

8th. In the mercurization of metallic surfaces in general, for instance, in the amalgamation of the surfaces of zinc in voltaic batteries; of the surfaces of copper plates, pans, etc., used in the saving of gold from its ores; * *

9th. In the more convenient transportation of quicksilver, by the reduction thereof into solid forms.

* * * * * *

I shall now proceed to the description of those special and peculiar qualities of these amalgams of the alkali-metals which I have discovered, and which have led to my new uses of them in the chemical and metallurgic arts.

A quantity of one of the magnetic amalgams, dissolved in one hundred times its weight or more of quicksilver, communicates to the whole a greatly enhanced power of adhering to metals; and particularly to those which, like gold and silver, lie toward the negative end of the electro-chemical scale. This power of adhesion, in the case of these two metals, is so great, that the resistance which I have found their surfaces, when in the native state, usually oppose to amalgamation (a resistance which is much greater and more general than has been hitherto recognized, and which is due to causes as yet undiscovered, or at least uninvestigated) is instantly overcome; whether their particles be coarse, fine, or even impalpable. Even an artificial coating of oil or grease (which is such an enemy to amalgamation that the smoke of the miners' lamps is pronounced highly detrimental in gold and silver mines) forms no obstacle to immediate amalgamation by this magnetic quicksilver. The atoms of the quicksilver are, as it would seem, put into a polaric condition by a minute addition of one of those metals which range themselves toward the electro-positive end of the scale; so that its affinity for the more electro-negative metals is so greatly exalted that it seizes upon, and is absorbed by, their surfaces instantaneously; just as water is absorbed by a lump of sugar or other porous substance soluble in it.

Such quicksilver (unlike ordinary quicksilver) even adheres strongly to surfaces of iron, steel, platinum, aluminum and antimony; an adhesion which, however, as I have discovered, in the case of these five metals is not of the nature of a true amalgamation, there being no penetration whatever into the substance of the metal; so that the superficially adherent magnetic quicksilver may be readily wiped off clean, just as water may be from glass. The only metal I have as yet found, which cannot be enfilmed by the use of the magnetic amalgam, is magnesium.

I. *Applications of the magnetic amalgams to working the ores of the precious metals.*

My improvement in methods of amalgamating gold and silver ores consists in adding from time to time to the quicksilver used in amalgamation, about one-hundredth part, or less, of its weight of one of the magnetic amalgams. The frequency with which the amalgam is to be added cannot be exactly specified, as it will be found to depend more or less on a multitude of circumstances; such, for instance, as the temperature, the purity of the water and the quantity of water used, the ratio borne by the surface of the quicksilver to its mass, the amount and mode of agitation of the quicksilver, the nature of the process and of the apparatus used, the character of the ore, the strength of the amalgam, etc., etc.; so that this important point can only be determined by experience in each case. Some general directions may, however, be derived from the experiments which have been made. It has been found that very much less sodium is requisite in those cases in which much water is employed, and that water frequently renewed; for instance, in the riffles of a sluice, and in all forms of amalgamators through which a continual current of fresh water is kept running; mercurial solutions of sodium, as I have discovered, being little affected by water which is free from acid, alkaline, or saline impurities. In those cases, however, in which little water is employed, and especially when the ore and quicksilver are ground up together into a "slum" or slime, this water soon becomes alkaline, and an oxydation of the sodium sets in, necessitating its frequent renewal. In such cases, therefore, the following manipulation is recommended: The whole amount of quicksilver to be used for working up a batch of slime, say 50 pounds, is magnetized by dissolving in it one per cent. of amalgam No. 2; or better, two per cent. of the soft amalgam No. 1, which dissolves more readily; half of the whole, or 25 pounds, is then thrown into the mill with the ore at first, and, as the incorporation proceeds, certain fractions of the other half are gradually added, at intervals of time varying according to circumstances, until the whole has been added. If, as is usual, the quicksilver is a portion which has been separated from the slime of a previous operation, it will usually retain some sodium, and therefore will require fresh amalgam in proportionately smaller quantity.

In sluicing operations the soft amalgam No. 1 is most suitable, on account of its ready solubility in mercury; and in these cases it is practicable to *test* the quicksilver in the riffles and ascertain when the magnetic quality requires restoration, by throwing in a few grains of gold-dust. Similar tests are easily applied to slimes, and in amalgamating methods generally, a slip of tarnished sheet copper being a very suitable agent for such testings.

It may be remarked in passing, that the amalgam No. 1 is at any time easily prepared from No. 2, by melting it in an iron ladle with about its own weight of quicksilver, or from No. 3, by melting with twice its weight; considerable time, however, being requisite, in the case of No. 3, to produce the additional combination. In copper-plate amalgamation, that is, in those cases in which auriferous materials are brought into contact with amalgamated metallic surfaces, it is better to substitute altogether for quicksilver itself (both in the first coating of the metallic surfaces, and in any subsequent additions of quicksilver made) the pasty amalgam No. 1. In these modes of amalgamation great economy in wear and tear of apparatus, as well as in first cost, is effected by using, in connection with the magnetic amalgam, plates or surfaces of *iron* instead of copper. The power of coating or enfilming iron renders the amalgams in fact peculiarly valuable in every form of arastra, drag-mill, or other apparatus for amalgamation which has internal surfaces of iron, these surfaces becoming coated over with quicksilver, and thus immensely extending its chances of contact with those particles of gold which are so fine as to remain suspended in the water.

Other important devices arise out of this power of enfilming iron surfaces, such as the keeping of iron surfaces of stamps, and of other apparatus used in *crushing* ores continually coated with quicksilver. Quicksilver possessed of the magnetic quality may be kept dropping or trickling upon the surfaces of crushing-rollers; or in those crushers in which iron balls are used, the surfaces of these balls may be kept enfilmed. In like manner as the *adhesion* of quicksilver to other metals is exalted by the alkali-metals, so, also, as I have discovered, is its *cohesion* with itself greatly increased. It is rendered more viscid, more difficult to divide mechanically, and when thus divided runs together again instantly upon contact. Hence arise new results of incalculable value. For instance, the so-called "flouring" or granulation of the quicksilver, which in the amalgamation of ores always occasions so great losses, both of the quicksilver itself and of its amalgams with the precious metals, is reduced to a *minimum* or altogether prevented.

The recovery of floured quicksilver and amalgams from slimes and similar mixtures is also greatly facilitated and accelerated thereby. For this purpose some strongly magnetized quicksilver is thrown into the separator. Such slimes may even be operated upon with advantage by the ordinary process of *panning by hand;* a little magnetic quicksilver being thrown into each pan and stirred about at first for a few moments with the hand, which will collect together and incorporate all the scattered globules of auriferous amalgam. In fact, in all panning operations, even upon the pay-dirt of placer diggings, much labor, gold, and time may in this way be saved.

It is necessary to specify an important precaution applicable in some cases in which magnetic amalgams are used, and particularly in those cases in which the ore is ground or agitated with quicksilver in contact with metallic iron. This arises from the liability of the adhesion of some abraded particles of iron to the amalgam. The following plan is therefore recommended in these cases: The amalgam, after separation from the excess of quicksilver, and before retorting, is fused in an earthen dish or iron ladle (with addition of a little quicksilver, if necessary, to make it more fluid), and the iron, which will rise and form a scum on the surface, is skimmed off. The excess of quicksilver may then, after cooling, be again separated from the amalgam in the usual way. Any amalgam which may adhere to the iron-scum is readily detached therefrom by boiling in water to remove the sodium. This process depends on the simple fact that the adhesion to the iron totally disappears with the extraction of the last traces of sodium from the quicksilver. In fact, it is possible to remove all the iron from the amalgam by boiling directly in water, without any previous fusion; more particularly if the water be made somewhat acid or alkaline. The presence of iron in a sample of amalgam is readily detected by the magnet, which instrument may be sometimes used to advantage also in separating intermixed iron from amalgam, after all sodium has been extracted from the latter. There are still other metals which will usually be found adherent to the amalgam when sodium has been used; such as platinum and osmiridium. These, like iron immediately detach themselves on the removal of the sodium by boiling the diluted amalgam in water. A mixture of platinum or osmiridium, or both, with iron, may of course be freed from the latter by the magnet. It will generally be found desirable, as in other cases where quicksilver is used and ores containing arsenic or sulphur operated upon, to remove as much as practicable of the arsenic or sulphur by previous roasting or other chemical treatment.

* * * * * *

III.—*Applications to the recovery of metals from their saline compounds.*

In the common operation of reducing silver to an amalgam from its native or artificial chlorid, or from its sulphate, by the action of metallic iron or zinc in conjunction with quicksilver, immense advantage arises from the use of the magnetic amalgams, especially in the reduction of the time occupied to a fraction of that heretofore required. This applies as well to ores in which the silver occurs naturally as chlorid, bromid or iodid, as to those in which the silver has been previously converted into chlorid, or sulphate, or both, by roasting with common salt or otherwise; and to chlorid which has been precipitated from solution. * *

When gold has been obtained in solution, either from ores or from other materials, by the action of chlorine, aqua-regia, cyanid of potassium, or any other solvent, also when silver has been obtained in solution, in hypo-sulphites or otherwise, the most rapid and thorough mode of saving these metals will be found to be their conversion into amalgams, by precipitation with metallic iron in contact with magnetic quicksilver, more especially when the solutions are dilute. * *

The greater rapidity and perfection of the precipitation, in these cases, are obviously due to the absolute contact at once established with the iron surfaces by the magnetic quicksilver, and the perfect and powerful voltaic circuits thus kept up constantly throughout the two metals and the solution.

* * * * * *

VIII.—*Applications to the Mercurializing of Metallic Surfaces in general.*

In all cases in which it is an object to save time and labor in the coating of surfaces of other metals with quicksilver, * * * the magnetic amalgams come into play. * * *

By virtue of the adhesion to iron and other non-amalgamable metals imparted by the magnetic amalgams, I am enabled to apply quicksilver, or fluid or pasty amalgams, to any metallic surface, with great rapidity and facility, *with a brush*, after the fashion of a paint; the material of such brush being fine wire of iron, steel, aluminum, or platinum. Of these the material most generally suitable is the finest steel wire, tempered to about a spring temper, or somewhat softer; and the most generally useful form for such brushes, is that of a *flat* varnish or white-wash brush.

Among the important uses of such brushes may be instanced; the amalgamation of copper (or iron) plates used in saving gold from ores; * * *. Another valuable use is the recovery of quicksilver which has been spilled or scattered in the form of globules; such a flat brush, saturated with magnetic quicksilver, instantly collecting, incorporating, and sucking up the scattered globules, even from the most irregular surface.

The same principle of adhesion of magnetic amalgams to a brush of steel wire, is applicable, in many obvious ways, to the separation of metals from ores, and of granulated or floured quicksilver from ores and slimes, etc.

* * * * * *

IX.—*Applications to the Transportation of Quicksilver.*

The ordinary mode of packing and transporting quicksilver in bulk, is very expensive and troublesome; and in its ordinary form its transfer from one vessel into another is accompanied by great liability to loss. It will therefore be found very convenient and useful to possess simple, cheap and practicable modes, such as those described above, of converting it into solid forms, susceptible of transportation in vessels of lighter and cheaper material than the ordinary wrought-iron bottles; such, for instance, as glass or earthen ware jars, wooden

kegs, bags or bottles, or other envelopes of caoatchoue or gutta-pereha, etc., etc.

This plan also enables quicksilver to be packed, stored, transported and sold in convenient forms; such as bars, ingots, cylinders, blocks, cubes, spheres, or pellets, of definite sizes and weights, the convenience of which for many uses, and particularly for that of miners, is at once obvious. When the quicksilver is to be used in any of the arts above specified, it will then be already in a suitable condition, or will merely require admixture with some fluid quicksilver; and when to be used as pure quicksilver, the sodium may be removed by throwing the solid amalgam in fragments into hot water, preferably mixed with a little sulphuric or acetic acid.

The modes of packing such ingots, for preservation and transportation, are already sufficiently set forth in a preceding paragraph.

Claims.—The claims attached to this specification are twenty three in number; and those only are here given which directly concern the miner and amalgamator.

What I claim as my inventions are:—

1st. The combination with quicksilver, when used for the extraction by amalgamation of any metal or metals from ores, slimes, and mixtures with other materials; of metallic sodium, or metallic potassium, or any other highly electro positive metal equivalent in its action thereto; as above set forth.

2d. In those amalgamators in which amalgamated plates of copper or other metal are used; the substitution therefor of plates or surfaces of iron, coated with quicksilver combined with sodium, or other highly electro-positive metal; as above set forth.

3d. The coating of iron surfaces, between or under which ores or other materials are crushed, with quicksilver combined with sodium, or other highly electro-positive metal; as above set forth.

4th. The prevention of the granulation or flouring of quicksilver, when used in any method of amalgamating ores or other materials; by addition thereto of sodium, or other highly electro-positive metal; as above set forth.

5th. The separation of intermixed iron from double amalgams of gold and sodium, or of silver and sodium; by fusion with excess of quicksilver and skimming; as above set forth.

6th. The separation of intermixed iron, platinum, osmiridium, and other non-amalgamable metals, from amalgams containing sodium or its equivalent; by action thereupon of water or other oxydating liquid; as above set forth.

7th. The separation of intermixed iron from amalgams containing sodium or its equivalent, or from any metal or metals extracted from such amalgams; by magnets, either permanent or electro-magnetic; as above set forth.

8th. The combination with quicksilver, when used in conjunction with iron or other reducing metals, for reducing to an amalgam, silver from its chloride or other compound, or any other metal from any saline compound or solution; of sodium, or other highly electro-positive metal; as above set forth.

* * * * * *

12th. In all cases in which metallic surfaces, such as copper plates, the zincs of voltaic batteries, etc., are to be amalgamated; the use of quicksilver combined with sodium, or other highly electro-positive metal; as above set forth.

13th. The more rapid and convenient application of quicksilver to surfaces with metallic brushes; by virtue of its previous combination with sodium, or other highly electro-positive metal; as above set forth.

14th. The use of metallic brushes, enfilmed with an amalgam of sodium or its equivalent; for incorporating together particles of quicksilver, gold, silver, or any other metal, scattered throughout ores, slimes, or any other materials; as above set forth.

15th. The more convenient transportation, handling and subdivision of quicksilver; by conversion into solid forms; in the manner herein substantially described.

A HEAVY BLAST.—The Nevada *Transcript* says that a blast of three hundred kegs of powder was let off in the Golden Gate claims at North San Juan, one day last week. The claims, as well as all others in that vicinity, require an immense amount of powder to blast the cement which is very hard, and cannot be worked in any other way. This blast shook the whole town, and in a house near by, a man was thrown completely out of his chair, while reading a paper. Considerable damage was done by the breaking up of pipes, hose, flume, etc., in the diggings. Scarcely a piece of this cement can be picked up in the Goldeo Gate claims but what is filled with gold.

THE yew trees of Surrey, England, stood in the days of Julius Cæsar. There is an apple tree in Hartford, Conn., 200 years old. A live oak in Louisiana 1000 years old. A cedar on Mount Lebanon 2,120 years old. A sycamore in the Bosphorus 4,000 years old.

Communications.

IN THIS DEPARTMENT we invite the FREE DISCUSSION of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

From El Dorado County.

BY OUR TRAVELING CORRESPONDENT.

MESSRS. EDITORS:—Having been detained in the neighborhood of Georgetown much longer than I originally intended, in consequence of the equinoctial storm that had set in when I last wrote, the few short intervals of sunshine intervening, have been spent in an examination of the mines and ledges lying south, embracing a scope of country seven miles in length and two in width, bordering upon Empire, Manhattan, and Johnston creeks, and extending to Kanaka Valley.

The placer mines are not yet entirely worked out, if we may be allowed to judge from the number of claims that still afford a livelihood to a population of some 500, perhaps, within the above limits—one claim (Mr. Russell's) at Garden Valley, paying from $10 to $12 per day to the man.

As to quartz claims, "their name is legion," and all history, ancient and modern, has been ransacked for appropriate cognomens—our late generals coming in for their full share, as well as some of the lucky owners or locators of the same. More or less work had been done upon all, but generally "loss"; very few claims having a shaft over twenty feet in depth; and yet the indications, so far as developments had been made, were all that could be expected or desired, such as lodes of well-defined, lively quartz; free gold in most cases being visible with irregular, auriferous sulphurets, and placer mines in the ravines below them. Indications may be good, but facts and demonstration are better. In some instances, even, it has been demonstrated by sluicing, by the hand-mortar, and by crushing a few tons of the ore, that it will pay well; yet, the work goes out on, or if it moves at all, moves slowly. Why so? Engines for hoisting water and ore are wanted, and mills for crushing, and these require capital.

The first claim visited was

THE EMPIRE,

One mile from town, on the trail leading to Gardea Valley, located a year ago by Messrs. Ingam, Woodside, Kenedy, et als., having a shaft down eleven feet, filled by the recent rains with water, and giving no opportunity of seeing the lode at this point, but as it had been cut by another company some few hundred feet north, I was enabled to form an opinion as to its size, dip, and direction. Its course, like all others afterwards examined, followed the general direction of our mountain ranges. It pitched somewhat to the east (as was the case with the whole of those visited in this locality), with one exception, and appeared to be encased in solid walls some two feet apart. This company are now at work, running a tunnel to strike the lode at a depth of about eighty feet, having already made thirty feet, with, perhaps, fifty more to run. Four tons taken from the 11-foot shaft, crushed at Woodside's mill yielded eight dollars to the ton, taking no account of the gold in the sulphurets, which are said to have assayed $180 per ton.

THE COLLINS' CLAIM,

Three-quarters of a mile west, lies along the dividing ridge between Empire and Manhattan creeks, contains 1,800 feet, and was located only a few weeks since by Messrs. Collins, Hart, and others, who have gone vigorously to work, and laid bare a ledge from four to six feet wide, showing quartz containing free gold and sulphurets, equal in appearance to any in this vicinity at the same depth. They have levied no assessments thus far, sluicing out enough gold along the eastern portion of the lode to keep up expenses. My beau ideal of a claim is one that requires no assessments nor work—particularly the latter. This claim comes very near filling the bill.

After a hint or two as to the desirableness of being the happy owner of a little slice, in company with my young companion and guide, W. H. Collins, the lucky discoverer, and who had honored it with his name, crossing Manhattan Creek, I soon reached

THE ROSECRANS,

A beautiful little claim of 900 feet, lode two feet wide, the quartz in many respects similar to that of other claims herein described, particularly as regards the small, irregular, dark-colored sulphuret—a common characteristic of this section—and the usual accompaniment of gold. A cut had been made for some distance along the ledge, and a shaft sunk on the same thirty feet. From forty to fifty tons of ore, I should judge, were lying upon the dump, showing the foot-prints of time. Such ore ought not, and will not, as I now have reason to believe, remain there long.

After a hasty visit to Mr. Gruber's lode, one mile north, differing only in its apparent western dip, and a greater decomposition of the quartz, where some very rich quartz specimens had just been sluiced out, I reluctantly bade adieu to my joyous young friend, and wended my way rather wearily towards Garden Valley, two and a half miles south, to find rest for a night. Here, finding neither hotel nor boarding-house, Mr. Fox, one of the owners of the Rosecrans, found me "a stranger and took me in," and gave me a kindly welcome from the storm, for which all thanks. From this gentleman I ascertained that some ninety tons of quartz from the Rosecrans, unselected and mixed with considerable wall rock, produced upwards of ten dollars per ton, not including the gold in the sulphurets, which, from a test made in a small way, justified the belief that the full yield from the whole properly worked would have been at least thirty dollars to the ton. With the facilities for working here enjoyed, who says that it will not pay? And this claim is only one of a hundred equally promising. Getting an early start next morning, piloted by Messrs. Fox, Russell and others, several quartz lodes were soon reached, varying so little in general character from each other, that a description of one must suffice for all. We will select from among the number of Generals—

GENERAL SHERIDAN.

A shaft was down thirty feet, following a lode two or three feet in thickness, as well defined as was ever witnessed, and, at the same time, giving good evidence of permanence and value. Some thirty tons of as good looking quartz, possessing the usual favorable characteristics, as had heretofore been met with, were seen piled up for reduction at the Blue Ledge mill. The company are busy at work.

LYONSDALE AND ITS LEDGES.

This romantic little village, screened from view by the surrounding hills, covered with the California oak and pine, and thrifty undergrowth, one mile south of Garden Valley, and six from Georgetown, possesses charms both for the student of nature and the worshiper of Mammon. Here or in this vicinity are situated the Blue Ledge, the Isabel, the Generals Grant and Meade, and many others, some of which only can be even briefly noticed.

GENERALS MEADE AND GRANT,

So well known to fame, will, therefore, pardon me for a mere passing notice, being found strongly intrenched in walls of slate, on a hillside a little to the east, showing that they are composed of a better grit, of purer gold and more of it, than the world ever dreamt of; so I hasten to pay my addresses to

THE BLUE LEDGE,

A short distance from the last described, of which a brief account appeared in your issue of March 3d, stating among other things that thirty-one ounces had been recently cleaned up from sixty tons of the ore. They have plenty more of the same sort—much far better. The gold is fine—not as to quality, but as to size of particles diffused through and through the rock, in little dim yellow spots and patches, sometimes considerably lengthened, and spreading out not unlike the nebular phenomena of the heavens, as seen under a good telescope. At one point of this lode where a cut had been made on the surface, it was at least fifty feet from wall to wall, which is of hard, black slate, particularly as depth is attained; and some four veins of good ore, from one to four inches in width, the interior remaining space being filled with a species of sandstone, looking much like slate, (I am neither a practical geologist nor mineralogist, remember, and only wish to describe things as they appear to a plain prospector,) while much of it in places was almost pure quartz. I climbed down a ladder eighty-five feet to the foot of a shaft, whence a drift has been run along one vein some two feet in width for 163 feet, intersecting at that point with another shaft of some thirty feet, on the same water level. The walls, from development made at the bottom of the 85-feet shaft, are not so far apart as exhibited at the point spoken of on the surface 130 feet south, while the veinstone is gradually assuming a more quartz-like character, and the pay veins are growing apparently larger and richer, gold and and auriferous sulphurets being found in both quartz and quartzose sandstone. The company have erected a first-class, substantially-built 20-stamp mill, with battery-blocks for ten more stamps to be hereafter added, having an engine of 35-horse power, six Varney bars, and two of Hendy's Prater Concentrators, although without the late improvement as to self-discharging sulphurets, as exhibited in the cut.

The mill has stopped running until the machinery for hoisting and pumping can be placed in working order, which will probably occupy two weeks, when at least 100 tons of better rock than has yet been crushed will be put through the stamps. Those who have seen and handled the ore have no fears as to the result.

The company have two more lodes, both of which are considered promising, and one of which I saw that speaks for itself, quarter of a mile east of the mill, 1,200 feet in length, ten feet wide, rich in sulphurets, only partially developed—one shaft ten feet, but giving tangible evidence of great value, Mr. Doran, the original locator, having taken therefrom some $600 in a common hand-mortar.

The claims above, briefly alluded to as the Generals Meade and Grant, are the first two northern extensions on the lode, and have done a considerable amount of prospecting with good promise—a mill-test of 1,500 pounds on the Grant giving at the rate of $160 per ton. In close proximity to the east I saw also a very good copper lode, on which several locations had been made, and work performed, yielding sixteen per cent. ore.

CONCLUSION.

The sun, so long a stranger, is beginning to appear through the scattering clouds, reminding me that these rough sketches must have an end. I am glad of it. I grow weary of the pen, so let me now hastily and heartily return thanks to Mr. W. H. Newell, for favors and important information during my stay at the Blue Ledge Mill, as also to Mr. Wooster, my companions among the cliffs and lodes of Lyonsdale, and hurry forth to be again delighted with the varied and countless wonders of our mineral world, and the ever-growing prospects of a glorious future, of which more anon, unless you grow weary of your

PROSPECTOR.

Lyonsdale, El Dorado County, March, 1866.

[Written for the Mining and Scientific Press.]

Sodium.

MESSRS. EDITORS:—I have always called your valuable paper the miner's compass, also, his ballot-box, to decide knotty questions, and I notice that Professor Silliman, Messrs. Mosheimer, Kustel and others, have deposited their votes on sodium. For the first time mine goes in, *open*, for sodium. I have probably had more practical experience in the use of sodium for extracting the precious metals on a large scale than any other man, and I have been very much excited by its beneficial results. I appreciate and render a vote of thanks to those who first recommended me to experiment with it. As Messrs. Silliman and others have given statements of several practical workings, it is unnecessary for me to make any; I am satisfied they are correct, as they correspond with my workings, both with and without the use of sodium. Some of my experiments would appear ridiculous to mention at the present time, and I will wait until the veil is lifted. It will probably take twelve months longer to roll it high enough for us all to see clearly the facts produced by its use.

In treating auriferous ores, I have always been able to amalgamate in a porcelain vessel, by the friction or agitation of the finger, by the aid of sodium, when the ordinary mercury of commerce would not affect it.

I notice my friend, Mr. G. Kustel, has been making some experiments with sodium on argentiferous ores, with rather poor results. I hope he will not discard its use without making more experiments with different proportions. If he does, I think he will agree with me. There is no man who stands higher in my estimation as a practical metallurgist than Mr. K. In proof of this, when my scholars leave me to take charge of works, my instructions to them are, "take Kustel's work for your guide."

I do not consider a mill complete without a small furnace to make sodium. The cost of materials is mere nothing. The men who attend the amalgamators can make all they require without the loss of time. Any parties who feel desirous of making it at their mills, can receive all necessary instruction for so doing without charge, if they will take the trouble to call at my works. All who have doubts on this subject, and wish to experiment, will always find my works and laboratory free, with this exception: those who pretend to decompose and work sulphurets by the use of a few ounces of chemicals, need expect no favors there, for I consider it a bumbug; as with all of my experiments, I require a ton and a half of chemicals to a ton of sulphurets, and that will not pay on fifty dollar ore.

I would be glad to see all who have experimented with sodium march up to the PRESS and deposit their votes; but though I should choose to be with the minority, I shall still continue to use it. S. P. KIMBALL,

Proprietor of the European Metallurgical Works.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD

Friday, April 6.

AFTERNOON SESSION.

4 shs Savage at 1055 per foot
1 sh Savage at 1050 per foot, s 3.
6 shs Yellow Jacket at 865 per foot
2 shs Yellow Jacket at 800 per foot, b 3.
1 sh Yellow Jacket at 875 per foot, b 30.
1 sh Yellow Jacket at 860 per foot, s 5.
3 shs Yellow Jacket at 860 per foot, s 3.
2 shs Belcher at 355 per foot.
1 sh Belcher at 355 per foot, s 10.
3 shs Chollar-Potosi at 320 per foot.
12 shs Crown Point at 1400 per foot.
12 shs Ophir at 745 per foot.
4 shs Alpha, G. H., at 460 per foot, b 30.
42 shs Overman at 65@70 per foot.
22 shs Overman at 70 per foot, h 20.
30 shs Overman at 75 per foot, b 30.
5 shs Empire M & M Co. at 200 per sh.
40 shs Exchequer at 10½ per share.
12 shs Confidence at 40@39 per share.
Amount of sales.....$ 80,430 00

Saturday, April 7.

240 shs Ophir at 744@752½ per foot.
24 shs Ophir at 745 per foot, s 3.
24 shs Ophir at 750 per foot, b 5.
25 shs Ophir at 750 per foot, h 3.
24 shs Ophir at 770 per foot, b 30.
2 shs Savage at 1060 per foot, s 3.
10 shs Savage at 1060 per foot.
6 shs Hale & Norcross at 960 per foot, b 20.
2 shs Hale & Norcross at 965 per ft, b 30.
4 shs Hale & Norcross at 930@935 per ft.
7 shs Chollar-Potosi at 390@397½ per ft.
4 shs Crown Point at 1410 per foot, s 3.
8 shs Crown Point at 1405 per foot.
4 shs Alpha, G H, at 430 per foot.
3 shs Belcher at 355 per foot.
2 shs Belcher at 370 per foot, b 30.
5 shs Belcher at 360 per foot, h 5.
1 sh Yellow Jacket at 865 per foot, s 5.
2 shs Yellow Jacket at 870 per foot, s 3.
1 sh Yellow Jacket at 870 per foot.
2 shs Empire M & M Co. at 200 per sh, s 6.
77 shs Overman at 72½@73 per ft.
10 shs Overman at 73 per ft, s 30.
32 shs Imperial at 141@133 per share.
6 shs Imperial at 142½ per share, b 30.
10 shs Imperial at 133 per share, s 3.
5 shs Imperial at 133½ per share, s 15.
20 shs Bullion at 120@119 per share.
10 shs Exchequer at 10¼ per share, s 3.
20 shs Exchequer at 11 per share, b 30.
40 shs Exchequer at 10½@10¾ per share.
20 shs Confidence at 40 per share, h 30.
10 shs Confidence at 35½ per share, s 3.
5 shs Confidence at 37¼ per sh, s 30.
20 shs Caledonia Tunnel at 3½ per share.
1 sh Cal Steam Nav Co at 57½ per ct.
2 shs Cal Steam Nav Co at 57½ per cent, s 5
$5,000 Legal Tender Notes at 78¾c.
Amount of sales.....$132,164 00

Monday, April 9.

168 shs Ophir at 755@765 per foot.
96 shs Ophir at 760@765 per foot, s 3.
12 shs Ophir at 765½ per foot, s 6.
3 shs Yellow Jacket at 900@920 per ft, s 5.
4 shs Yellow Jacket at 915@920 per foot.
2 shs Yellow Jacket at 940@945 per ft, b 30.
9 shs Yellow Jacket at 915@900 per ft. s 30.
1 sh Yellow Jacket at 900 per foot, s 15.
1 shs Yellow Jacket at 915 per ft, s 3.
1 sh Yellow Jacket at 920 per foot, b 10.
6 shs Savage at 1080@1090 per foot.
1 sh Savage at 1100 per foot, b 30.
1 sh Savage at 1100 per foot, b 20.
1 sh Savage at 1100 per foot, b 10.
1 sh Savage at 1080 per foot, s 15.
2 shs Hale & Norcross at 950 per ft, h 30.
2 shs Hale & Norcross at 930 per foot.
6 shs Hale & Norcross at 930 per foot, s 3.
1 sh Belcher at 355 per foot, s 3.
2 shs Belcher at 362½ per foot.
30 shs Chollar-Potosi at 387½@385 per ft.
4 shs Alpha, G. H., at 435 per foot.
5 shs Imperial at 137 per share, s 30.
40 shs Imperial at 137@139½ per share.
20 shs Imperial at 140 per share, b 10.
5 shs Imperial at 140 per share, h 3.
25 shs Sierra Nevada at 8@8¾ per sharo.
10 shs Overman at 70 per ft, h 3.
25 shs Overman at 72@50 per ft.
15 shs Overman at 70 per foot, s 3.
5 shs Overman at 75 per sh, b 3.
10 shs Exchequer, at 10 per share, s 3.
5 shs Overman at 75 per sh, b 3.
10 shs Exchequer at 10 per share, s 3.
10 shs Exchequer at 10¼ per share.
15 shs Confidence at 37½ per share.
5 shs Bullion at 115 per share, s 5
$25,000 Legal Tender Notes at 79¼ pr ct, s 30.

AFTERNOON SESSION.

4 shs Belcher at 365 per foot.
1 sh Belcher at 362½ per foot, s 5.
2 shs Belcher at 367½ per foot
80 shs Daney at 15 per foot, b 30.
2 shs Savage at 1090 per foot.
4 shs Savage at 1100 per foot, h 15.
5 shs Chollar-Potosi at 387½ per foot.
9 shs Chollar-Potosi at 385 per foot.
1 sh Yellow Jacket at 920 per foot.
2 shs Yellow Jacket at 920 per foot, s 3.
1 sh Yellow Jacket at 925 per foot.
1 sh Yellow Jacket at 925 per foot, s 3.
36 shs Ophir at 775 per foot, b 10.
12 shs Ophir at "62½ per foot.
12 shs Ophir at 770 per foot.
4 shs Crown Point at 1400 per foot.
16 shs Imperial at 139@142½ per share.
6 shs Imperial at 140 per share, s 30.
10 shs Imperial at 141@142 per share, s 3.
6 shs Imperial at 145 per share, b 30.
6 shs Imperial at 143 per share, s 10.
5 shs Imperial at 146 per share, h 30.
30 shs Sierra Nevada at 8 per share.
60 shs Sierra Nevada at 8¼ per share.
10 shs Sierra Nevada at 8½ per sharo, b 30.
26 shs Confidence at 35@36 per share.
20 shs Overman at 80 per share, b 30.
16 shs Overman at 75@78 per sh.
10 shs Overman at 75 per ft, s 30.
Amount of sales.....$183,690 00

Tuesday, April 10.

60 shs Ophir at 775@772½ per foot, s 3.
82 shs Ophir at 775@776 per foot.
48 shs Ophir at 770 per foot. h 3.
12 shs Ophir at 770 per foot, b 5.
6 shs Savage at 1090@1100 per foot.
2 shs Savage at 1100 per foot, h 5.
1 sh Savage at 1090 per foot, s 15.
1 shs Savage at 1100 per foot, b 10.
3 shs Chollar-Potosi at at 387½@385 per ft.
6 shs Chollar-Potosi at 400 per foot, b 30.
1 sh Chollar-Potosi at 386 per foot, s 3.
16 shs Hale & Norcross at 960@990 per foot.
2 shs Hale & Norcross at 1000 per ft, b 10.
8 shs Hale & Norcross at 1000@990 pr ft, h 30.
11 shs Yellow Jacket at 925@950 per ft, s 3.
8 shs Yellow Jacket at 94 @950 per ft.
1 sh Yellow Jacket at 950 per foot, b 3.
5 shs Yellow Jacket at 940 per foot, s 30.
12 shs Belcher at 390@385 per foot. b 30.
7 shs Belcher at 377½@375 per foot.
3 shs Belcher at 372½ per foot, b 3.
4 shs Alpha, G H, at 445 per foot, s 30.
15 shs Imperial at 145@143½ per share, s 3.
40 shs Imperial at 150@152 per share. b 30.
32 shs Imperial at 146@148 per share.
10 shs Imperial at 147½ per share, b 10.
5 shs Imperial at 150 per share, b 15.
5 shs Imperial at 148 per share, s 5.
40 shs Overman at 85@82½ per foot, b30.
18 shs Overman at 77½@79 per ft.
10 shs Overman at 80 per ft, b 3.
83 shs Bullion at 117½@115 per share.
12 shs Bullion at 122½@120 per share, b 30.
40 shs Sierra Nevada at 8¾@9 per sh.
20 shs Sierra Nevada at 9 per share, s 3.
6 shs Confidence at 39 per share.
$5,000 Legal Tender Notes at 81c, h 30.
$ 5,000 Legal Tender Notes at 80c, s 30.

AFTERNOON SESSION.

108 shs Ophir at 770@762© per foot.
48 shs Ophir at 770@775 per foot, b 3.
12 shs Ophir at 767½ per foot.
12 shs Ophir at 700 per foot, b 5.
17 shs Belcher at 375@377½ per foot.
12 shs Belcher at 380 per foot, b 30.
1 sh Belcher at 378 per foot, b 3.
11 shs Chollar-Potosi at 382½@385 per ft.
1 sh Yellow Jacket at 290 per foot, s 30.
2 shs Yellow Jacket at 930@935 per ft.
4 shs Crown Point at 1390 per foot.
4 shs Crown Point at 1390 per foot, s 3.
4 shs Crown Point at 1400 per foot, b 10.
33 shs Daney at 13@14 per foot.
35 shs Segregated Belcher at $16 per sh.
5 shs Imperial at 149 per share, s 3.
40 shs Imperial at 149@150 per share.
20 shs Imperial at 150 per share, b 3.
5 shs Imperial at 150 per share, s 10.
25 shs Imperial at 150@152½ per share, b 30.
10 shs Imperial at 148 per share, s 10.
1 sh Imperial at 148 per share.
10 shs Bullion at 117@117½ per share.
7 shs Overman at 75 per share.
10 shs Overman at 75 per share, b 5.
10 shs Sierra Nevada at 8¾ per share.
10 shs Spring Valley Water at 67 per sh.
Amount of sales.....$196,948 00

Wednesday, April 11.

24 shs Ophir at 770 per foot, s 10.
188 shs Ophir at 755@752½ per foot.
60 shs Ophir at 800@795 per foot, b 30.
12 shs Ophir at 775 per foot, s 3.
12 shs Ophir at 775 per ft, b 5.
24 shs Ophir at 770 per foot, s 30.
5 shs Savage at 1090 per foot.
11 shs Chollar-Potosi at 382½@375 per foot.
5 shs Chollar-Potosi at 390 per foot, b 30.
28 shs Crown Point at 139 foot.
4 shs Yellow Jacket at 930@950 per foot
7 shs Yellow Jacket at 940@950 per foot, b 3.
2 shs Yellow Jacket at 940 per foot, s 30.
1 sb Yellow Jacket at 950 per foot, s 5.
160 shs Daney at 13½@14 per foot.
80 shs Daney at 15 per foot, b 30.
8 shs Alpha, G. H., at 460@465 per foot.
2 shs Hale & Norcross at 980 per foot.
2 shs Belcher at 377½@376 per foot.
3 shs Belcher at 390 per foot, b 30.
66 shs Overman at 77½@88 per foot.
15 shs Overman at 80 per foot, b 3.
5 shs Overman at 80 per ft, b 10.
10 shs Overman at 82½ per foot, b 20.
45 shs Sierra Nevada at 8¾@8¾ per share.
80 shs Imperial at 147@144 per share.
30 shs Imperial at 145@143 per sh. s 30.
25 shs Imperial at 148@147 per share, b 30.
47 shs Confidence at 38@37 per share.
10 shs Confidence at 36 per share, s 30.
50 shs Fireman's Fund Ins. at 119 per cent.
5 shs Cal Steam Nav Co at 58 per ct.

AFTERNOON SESSION.

4 shs Belcher at 387½ per foot.
6 shs Belcher at 390@385 per foot, b 30.
8 shs Crown Point at 1400 per foot.
4 shs Crown Point at 1400 per foot, b 3.
6 shs Savage at 1090@1085 per foot.
14 shs Chollar-Potosi at 390 per foot.
2 shs Yellow Jacket at 940@950 per foot, b 3
2 shs Yellow Jacket at 850 per foot, b 30.
33 sh Yellow Jacket at 940 per foot, s 3.
108 shs Ophir at 770@765 per foot.
60 shs Ophir at 770 per foot, b 5.
24 shs Ophir at 765 per foot, s 30.
15 shs Overman at 81½ per share.
20 shs Overman at 80 per sh, b 3.
27 shs Overman at 79@78.
20 shs Exchequer at 10¼ per share, s 3.
8 shs Exchequer 10½ per share.
105 shs Exchequer at 10½ per share, b 3.
60 shs Exchequer at 10¾ per share.
20 shs Exchequer at 10¾ per share, b 3.
15 shs Confidence at 37 per share.
15 shs Sierra Nevada at 9 per share.
5 shs Empire M & M Co. at 210 pr sh.
10 shs Imperial at 144 per share.
Amount of sales.....$170,389 00

Thursday, April 12.

240 shs Ophir at 762½@775 per foot.
12 shs Ophir at 775 per foot, b 3.
36 shs Ophir at 762½@775 per foot, s 3.
36 shs Ophir at 792½@795 per foot, b 30.
12 shs Ophir at 780 per foot, b 10.
4 shs Savage at 1080 per foot.
3 shs Savage at 1080 per foot, s 3.
5 shs Chollar-Potosi at 377½ per foot, s 3.
17 shs Chollar-Potosi at 387½@390 pr ft, b 30.
39 shs Chollar-Potosi at 377½@360 per foot.
5 shs Chollar-Potosi at 375 per foot, s 30.
1 sh Chollar-Potosi at 370 per foot, h 3.
2 shs Chollar-Potosi at 365 per foot, s 10.
4 shs Crown Point at 1400 per ft, b 3.
8 shs Crown Point at 1405@1400 per foot.
2 shs Yellow Jacket at 950 per foot, b 30.
3 shs Yellow Jacket at 935@930 per foot.
2 shs Yellow Jacket at 920@919 per ft, s 30
1 sh Yellow Jacket at 925 per foot, s 3
4 shs Belcher at 377½@360 per foot, b 10.
1 sh Belcher at 375 per foot, s 15.
1 sh Belcher at 380 per foot, h 30.
200 shs Daney at 14 per foot.
4 shs Hale & Norcross at 975 per foot.
8 shs Empire Mill & M. Co. at 200 per sh.
2 shs Empire M & M Co. at 200 per sh, s 3.
34 shs Imperial at 145@151 per share.
15 shs Imperial at 149@151 per share, b 10.
50 shs Imperial at 145@150 per share, s 30
45 shs Imperial at 155@154 per share, s b0.
10 shs Imperial at 150 per share, s 30.
15 shs Sierra Nevada at 9¼ per sharo.
117 shs Overman at 77½@76 per foot.
5 shs Overman at 77½ per share, b 3.
5 shs Overman at 75 per share, s 30.
10 shs Overman at 78 per share, b 10.
15 shs Overman at 76 per foot, s 3.
40 shs Overman at 80 per foot, b 30.
5 shs Bullion, at 115 per share, s 3.
15 shs Bullion at 115@116 per share.
5 shs Bullion at 115 per share, s 15.
5 shs Bullion at 120 per share, b 30.
30 shs Exchequer at 10¾ per foot, s 3.
20 shs Exchequer at 10¾ per share, b 10.
$10,000 Legal Tender Notes at 80c.
$ 5,000 Legal Tender Notes at 80c, s 30.

AFTERNOON SESSION.

17 shs Chollar-Potosi at 370@368 per foot.
6 shs Chollar-Potosi at 367½@372, b 3.
21 shs Chollar-Potosi at 377½@377, b 30.
1 sh Chollar-Potosi at 366 per foot.
36 shs Ophir at 800@805 per foot, b 30.
204 shs Ophir at 800@790 per foot.
96 shs Ophir at 795 per foot.
12 shs Ophir at 800 per foot, b 5.
24 shs Ophir at 790 per foot, s 3.
96 shs Ophir at 810 per foot, h 30.
24 shs Ophir at 800 per foot, b 10.
12 shs Ophir at 790 per foot, b 3.
5 shs Belcher at 365@382½ per foot, b 30.
9 shs Belcher at 355@360 per foot.
4 shs Crown Point at 1400 per foot, s 6.
1 sh Yellow Jacket at 950 per foot, h 30.
1 sh Yellow Jacket at 920 per foot.
1 sh Yellow Jacket at 910 per foot, s 30.
2 shs Yellow Jacket at 900@910 per foot, s 3
3 shs Empire M & M Co. at 200 per sh.
45 shs Imperial at 155@150 per share.
5 shs Imperial at 155 per share, b 30.
9 shs Imperial at 152@153 per share, s 3.
10 shs Imperial at 152½ per share.
10 shs Imperial at 152@151 per share, s 30.
5 shs Imperial at 153 per share, s 10.
10 shs Overman at 76 per foot, s 3.
15 shs Overman at 76@75½ per foot.
10 shs Sierra Nevada at 9 per share.
5 shs Bullion at 116 per share.
Amount of sales.....$208,420 00

Friday, April 13.

360 shs Ophir at 815@800 per share.
216 shs Ophir at 810 per foot, s 3.
84 shs Ophir at 800 per foot, s 30.
72 shs Ophir at 810@812½ per foot.
50 shs Imperial at 150@145 per sh, s 30
45 shs Imperial at 156@152½ per sh, s 6.
85 shs Imperial at 146@148 per share.
13 shs Yellow Jacket at 900@880 per foot.
9 shs Yellow Jacket at 910@900 per ft, h 30
4 shs Yellow Jacket at 890 per foot, s 10.
5 shs Yellow Jacket at 885 per ft, s 30.
3 shs Yellow Jacket at 885 per foot.
12 shs Chollar-Potosi at 377½@375, b 30.
15 shs Chollar-Potosi at 385@366 per foot.
10 shs Confidence at 37½@38 per share.
8 shs Belcher at 355@360 per foot
2 shs Belcher at 375 per foot, b 30.
5 shs Bullion at 112½ per share.
55 shs Overman at 72½@75 per foot.
40 shs Overman at 78@77 per foot, b30
200 shs Daney at 15 per foot, b 30.
100 shs Daney at 14 per foot.
10 shs Exchequer at 10 per foot.
50 shs Spring Valley W W, at 67 per cent.
Amount of sales.....$138,310 00

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, April 14, 1866.

The receipts of treasure at this port from all sources, during the quarter just ended, including coin and bullion, have been as follows:

From California and Nevada	$ 9,678,247
From British Columbia	122,345
From Northern Coast (Portland)	668,968
From Southern Coast	85,606
Imports, Foreign	435,526
Total	$11,005,692

The comparative aggregates for three years are as follows:

1864.	1865.	1866.
$12,842,206	$13,913,872	$11,005,692

The product of the mines on this coast, received through regular channels, for the above named period, was:

1864.	1865.	1866.
$10,842,306	$12,169,930	0,238,834

The figures show a decline this year as against last, of $2,931,096, and $1,603,472, as compared with 1864, owing to light receipts from Nevada during the months of January and February, and the interuption to both quartz and placer operations in this State, occasioned by the unusual severity of the winter.

FEDERAL EXPENDITURES AND REVENUE.

The expenditures of Government on this coast continue to form an interesting item in fiscal matters, and during the quarter ending March 31st, have been as follows, as compared with the same period in 1865:

For Army Department.

Quartermaster	$1,345,881
Paymaster	1,200,000
Commissary	272 076
For Navy Department.	
Navy Yard and Squadron	$ 310,000
For Revenue Department.	
Custom House services, Light House, Revenue Cutter, Marine Hospital, estimated	$ 115,000
Internal Revenue Service	55.000
Postal Service, estimated	65,000
Mint, Judiciary, Indian Agency, Land Offices, etc	90,000
Total	$3,462,957
Total, first quarter, 1865	4,118,240
Decrease this year	$ 655,283

The revenue of the Government for the same period is shown by the following figures:

From duties on Imports, Coin	$1,464,277
From Internal Taxation, San Francisco	691,569
From Internal Revenue, Interior	125,000
From Oregon and Nevada, estimated	80,000
From the sale of Stamps	75,000
From Postal Department	50,000
From Branch Mint	50,000
Total	$2,438,848
Total Revenue, first quarter, 1865	2,674,145
Decrease this year	$ 237,297

It is scarcely necessary to mention that for the above figures and estimates we are indebted mainly to the courtesy of Federal officers of this city.

The Mining Share Market has been well maintained this week, and nearly all stocks continue in request at enhanced rates.

Crown Point has met with trifling sales, receding from $1,410 to $1,390, then selling at $1,410, and closing at $1,405, bid. A dividend of $80 per foot will be disbursed to stockholders to-day, for the month of March, leaving a surplus of $48,306.08 in the treasury of the company. During the week ending last Saturday, 630 tons of ore were extracted from the mine. The south drift, (main lode, third level,) 266 feet from the north line, is said to show a decided improvement. The incline from that level is down some thirty feet, and is looking well; 3,247 tons of ore were crushed last month, averaging $46.76 per ton.

Savage has been in rather better favor, advancing from $1,060 to $1,100, and declining to $1,085. Some ore is being extracted from the sixth level, and a steady increase in the productiveness of the mine is now looked for. Gould & Curry is dull and inactive at about $980 asked.

Hale and Norcross declined from $960, buyer 20, to $930, advanced to $1,000, buyer 10, receded to $975, and was held yesterday at $980. A dividend of $50 per foot will be paid to-day. There is no material change in any portion of the 700 feet level, save that the fifth floor is said to disclose a better quality of ore than has been met with recently.

Yellow Jacket was not so well sustained, and some 100 feet were sold, advancing from $865 to $950, dropping to $925, and selling at the close at $840@852½. The balance sheet of the Company, April 1st, shows a surplus on hand at that date, after the payment of all liabilities, of $11,238.66. During the month of March their receipts of bullion amounted to $96,519.65, from 2,747 tons of ore crushed at the Morgan mill, and 1,871 tons reduced by outside mills; from assessments $180,000 was obtained, and other sources of revenue produced $10,990.69, in all $287,510.34. On the first of March last, the Company's indebtedness was $175,938.87, and their current and extraordinary expenses during that month amounted to $100,333.81, making a total of $276,272.15, as against the above receipts. The first crushing of twenty three tons of ore from the south mine, produced $7,029.31—$32.85 per ton.

Ophir rose from $745 to $800, buyer 30, receded to $765, rallied to $780, and sold yesterday at $800@850. Latest telegraph advices represent the "body of ore in the ninth gallery well defined," and the upper floor looking particularly well. From ths 3d to 10th inst., inclusive, some 350 tons first class and second class ore was taken from this portion of the mine, worth, it is thought, an average of at least $90 per ton; and during the same period about 200 tons of first and second class ore were extracted from the fourth and seventh galleries. Receipts of bullion since the 1st inst., have amounted to $33,888 33.

Chollar-Potosi is in rather less favor, and some 250 feet were dealt in, declining from $390 to $365, and selling yesterday at $366@365. The gross yield of 3,800 tons ore, nearly all of which was sent to custom mills last month, was $85,950; and the net receipts were $37,240.82 less the cost of mining. $13,381.99, disbursements for the new shaft, $9,254.15, and other expenses amounting to $2,613.99. These figures show a clear excess of receipts over all expenditures for the month of March, of $13,957 57. The Company are out of debt, with a surplus at their credit. During the week ending April 5th, 769 tons of ore were sent to custom mills, and 71¾ tons were sold at $8 per ton. In the Bajazette ground the winze from lower stope shows a body of ore three feet wide. In the stope overhead of incline, the vein of ore is narrow, but of good quality. The Grass Valley Station is looking very well, and some ore taken from the Belvidere shaft, at a depth of 150 feet, assays $30@100 per ton.

Alpha rose from $440 to $460, and is now held at $455. Belcher has continued active, advancing from $355 to $390, buyer 30, receding to $355, and closing at $360. Empire Mill was dealt in at $200 per share, and closes at $205, asked.

Imperial has been in better request, and some 750 shares were dealt in, advancing from $138 to $150, receding to $144, rallying to $155, and selling yesterday at $146@148. The Imperial-Empire shaft is down some 290 feet, and the drift from the old shaft is in about about ninety-five feet toward the new or seventh level. The first crushing of the Crown Point Mill, this month, shows a better yield, and amounted to $12,400.

Overman rose from $72 to $82, fell to $76, and closes at about $75. Bullion has been dealt in within a range of $112@120, closing at $113. Confidence rose from $35 to $39, and sold yesterday at $37.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	DAY OF SALE.
Assurance, Monterey co, Cal, 25c		May 11	May 29*
Arbitrias, Chihuahua, Mex., $1...		Mar 27	April 9
Alpha, Gold Hill, Storey co , Nev., $30		Mar 24	April 24
Altaville, $1 25		April 14	April 30
Adams' Petroleum, $5		April 30	May 19
Alameda Coal		Meeting April 9	
Beard & Seaver, Lander co., Nev., 50c		April 14	May 1*
Batopilas, Chihuaha, Mex., 25c		May 10	May 28*
Belcher, $60 ..		April 30	May 30
Belcher, Baldwin & Abernathie Co, $20		April 30	May 30
Baltimore American, Storey co., Nev., $2		April 12	April 28
Bullion			$10 00
Barreteros, Sonaloa, Mex., $5		May 10	May 28
Cosala, $1		April 26	May 12*
Comet Petroleum co., 30c		Mar 31	April 14*
Crown Point		Dividend payable Mar 15	
Consolacion, $1.25		Mar 31	April 15
Capital, Lander co., Nev., $5		April 13	April 10
Chiplonea, Sonora, Mex., $5		April 28	May 12
Chicago and Detroit Consolidated		Meeting April 16	
Confidence, Storey co., Nev., $25		May 4	May 18
Capitola		Meeting April 30	
Daney, 50c		May 12	June 9
Eagle Quartz, Amador co., Cal., $1		April 7	April 25*
Evening Star, Humboldt co., Nev., 50c		Mar 31	April 14*
Emerald Copper, $1		Feb 10	Feb 24
Eureka, Plumas Co		Meeting May 1	
Exchequer, $2		April 30	May 16
Geo. Washington, Alpine co., Cal., $1.00		May 12	May 29*
Gould & Curry		Dividend payable April 5	
Harker, Lander co., Nev., 50c		April 14	May 1*
Honest Miner, Lander co., Nev., $1		April 7	April 18*
Hanscom, Copper, Del Norte co., 15c		May 1	May 21*
Humboldt, Nevada		Annual Meeting April 10	
Hale & Norcross		Dividend—payable April 12	
I. X. L., $1.50		May 17	June 7*
Jefferson Lander co., Nev., 50c		April 14	April 30*
Jeffrey Oil, Humboldt co., Cal., 50c		April 17	April 28
Kentucky, $1		May 8	May 30*
Lady Franklin, Alpine co., Cal., 25c		May 7	June 5*
Lady Bell, 10c		April 14	April 28*
Lady Bryan, Storey co., Nev., $1		April 9	April 21
Lady Bryan		Annual Meeting April 16	
La Trobe T & M co., Storey co., Nev., $1..		April 10	April 28
La Victoire, $1		May 4	May 21
Madison, Lander co., Nev , 50c		April 14	April 30*
Monitor, Lander co., Nev., 75c		April 14	April 30*
Mosquito, Calaveras, Cal , $5		April 7	April 23*
Moss Ledge co., $25		May 1	May 16
Maria, Chihuaha, Mex., $2		March 31	April 14
Manchester, Alpine co., Cal		Meeting April 15	
North Star, Lander co., Nev , $25		April 30	May 28*
Nuestra, Sonora de Guadalupe, Mex., $1		Mar 31	April 16
Oregon, Lander co., Nev., 25c		April 14	May 1*
Oxford Beta, Esmeralda, Nev., 50c		April 7	April 25*
Old Colony, Austin, Nev., $1		April 14	April 28*
Overman, Storey co., Nev., $15		April 3	April 18
Open Sesame, 50		April 20	May 2
Pride of the East, 50c		April 14	April 27*
Providence, Nevada co., Cal., $1		Mar 17	Mar 31*
Patrochnia & Dolores, Chihuahua Mex., $2.50		April 1	April 10
Peninsula, Lower Cal., $5		April 3	April 14
Refugio, Chihuahua, Mex., $2½		Mar 31	April 14
Refugio, Mex		Meeting April 25	
Silver Cloud, Lander co., Nev., 50c		April 14	April 27*
Santa Cruz 50c		April 14	April 28*
Sweet Vengeance, $1		May 11	May 30
Siskiyon, $1.50		April 23	May 25
Sophia, Tuolumne county, $7		April 26	May 11
Shoshone, Lander co., Nev., $1		April 9	April 23
Siempre Viva, Sinaloa, Mex., $2.50		Mar 27	April 7
Salambo Copper, $1		May 8	May 29
Seaton		Salo March 30	
Sophia Consolidated		Meeting April 12	
Stephen A. Douglas, Lander co., Nev		Meeting May 2	
Sierra Nevada, Storey co, Nev., $4		May 7	June 6
United States, Storey co., Nev., 50c		Mar 17	Mar 31*
Yuba, Yuba co., Cal., $2		Mar 31	April 14*
Yellow Jacket, Storey co., Nev., 150		Mar 17	April 17

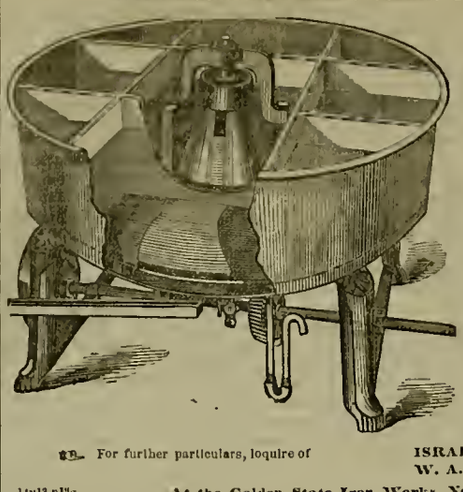
*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 50 @ 7 00
Do Superfine	6 00 @ 6 50
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	2 00 @ 2 10
Oats, choice, ₱ 100 lb	2 00 @ 2 10
Barley, ₱ 00 lb	95 @ 1 00
Beans, ₱ 100 lb	4 50 @ 5 00
Potatoes, ₱ 100 lb	1 05 @ 1 15
Hay, ₱ ton	10 00 @15 00
Live Oak Wood, ₱ cord	8 00 @10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½@ 15
Sheep, on foot,	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ 9
Hogs, dressed, ₱ lb	12 @ 13
Groceries, Etc.	
Sugar, crushed, ₱ lb	16 @ 16½
Do China	10 @ 12½
Coffee, Costa Rica, ₱ lb	— @ 24
Do Rio	— @ 24
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	8 @ 10
China do	7 @ 8
Coal Oil, ₱ gal	75 @ 80
Candles, ₱ lb	22 @ 24
Ranch Butter, ₱ lb	40 @ 45
Isthmus do	35 @ —
Cheese, California, ₱ lb	20 @ 22½
Eggs, ₱ doz	40 @ —
Lard, ₱ lb	22 @ —
Ham and Bacon, ₱ lb	— @ 22½
Shoulders	20 @ 22

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of FOUR YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

3d. The "shaking" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over **500** of them in use in California and Nevada, where these interested can see their practical workings.

☞ For further particulars, loquire of

ISRAEL W. KNOX, OR
W. A. PALMER, Inventors,

14v13-p12-1 **At the Golden State Iron Works, No. 19 First street, San Francisco.**

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 80¼	$ 81
Cov. Legal Tender Notes	78½	79
State Bonds, 7 ₱ cent	85	86
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	71	..
San Francisco Bonds, 1858..0 ₱ cent	09	..
Sacramento City Bonds, 6 ₱ cent	..	..
Sacramento County Bonds, 6 ₱ cent	58	60
Marysville Bonds, 10 ₱ cent	75	100
Stockton Bonds, 10 ₱ cent	60	65
Yuba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	75	78
California Navigation Co	55	57
State Telegraph Stock	32	35
San Francisco Gas Co	97	100
Sacramento Gas Co	..	75
Spring Valley Water Co	68	70
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	50	..
Central Railroad Co	..	..
North Beach and Mission	60	62
MINING STOCKS.		
Ophir	$ 850	$ 855
Gould & Curry	940	960
Empire M. & M. Co	200	205
Savage	1080	1100
Chollar-Potosi	360	365
Hale & Norcross	950	980
White & Murphy	....	....
Sierra Nevada	8	9
Yellow Jacket	850	860
Overman	72	74
Crown Point	1405	1410
Antelope	....	....
Esmeralda	1	5
Real del Monte	....	....
Bullion, C. H	113	114
Buckeye	....	....
Dick Sides	....	....
Imperial	147	148
Alpha	450	460

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45@ 50
do pickled ₱ lb	—@ —
do Oregon	35@ —
do New York, ₱ lb	50@ —
Cheese, ₱ lb	25@ —
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	—@ 50
Lard, ₱ lb	25@ —
Hams and Bacon, ₱ lb	26@ 28
Cranberries, ₱ gal	75@ 1 00
Potatoes, sweet, ₱ lb	—@ —
do Irish, ₱ lb	1@ 1½
Tomatoes, ₱ lb	@ —
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	3@ 8
Pears, table ₱ lb	8@ 25
Plums, dried, ₱ lb	@ —
Peaches, dried, ₱ lb	@ —
Oranges, ₱ doz	50@ —
Lemons, ₱ doz	75@ —
Chickens, apiece	87@ 1 12
Soap—Pale & C. O	10@ 12
Castile	14@ 12

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, March 17, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@ 1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	55 @60
American Pig ₱ ton	50 @55
Refined Bar, bad assortment, ₱ lb	3 @—
Refined Bar, good assortment, ₱ lb	3½@—
Boiler No. 1 to 4	4 @ —
Plate No. 5 to 9	4½@ 6
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—

COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing ₱ lb	34 @36
Sheathing, Old	29 @30
Sheathing, Yellow	30 @32
Sheathing, Old Yellow	27 @28
Bolts	13 @10
Composition Nails	30 @.2

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	16 @18
Plates, I C Charcoal	14 @15
Roofing Plates	12 @13
Banca Tin Slabs, ₱ lb	30 @ 5
STEEL.—English Cast Steel, ₱ lb	12½@16
QUICK-SILVER.—Per lb	—@65
For export	55 @—
ZINC.—Sheets ₱ lb	9½@10
LEAD.—Pig ₱ lb	8 @—
Sheet	10 @12
Pipe	10 @12
Bar	10 @11
BORAX—California, ₱ lb	20 @23

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLature of the State of California, entitled "An Act concerning Corporations," passed April 24, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire.....$12,073,949
Marine..... 481,408

This Company commenced underwriting Marine Risks, August 1, 1865.

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm Hooper,	Lloyd Tevis,
Hanson G. Stiles,	John L. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayword,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	T. T. Lawton,
Alphens Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis.
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs.	A. B. Forbes,	David Siern.

Frederick Billings, J. G. Kellogg,

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.

4v12-3m

QUARTZ OPERATOR'S
HAND BOOK

A Book for Every Intelligent Prospector, Shareholder, Miner and Machinist.

ZENAS WHEELER AND P. M. RANDALL,
Authors and Publishers.

BOUND IN CLOTH—144 PAGES, DUODECIMO.

THE QUARTZ OPERATOR'S HAND BOOK is presented to the public as a carefully prepared epitome of all that is valuable for the practical operator in the mine and mill. We have here all the most necessary hints and directions for testing and assaying the ores of the various minerals; an explanation of chemical terms; a brief and intelligible description of the numerous processes for roasting ores, and the extraction of metals from their ores by amalgamation and otherwise.

The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner.

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, conciseness, and simplicity—in fact to make it a complete and reliable QUARTZ MINER'S HAND BOOK.

The Table of Contents of this book will be found on pa 415 of the MINING AND SCIENTIFIC PRESS of July 1st, 1865.

Sold by booksellers generally. Price by mail, postage paid, $1.25. Address "Wheeler & Randall, at the Mining and Scientific Press Office, San Francisco." 2v11

Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

New Mining Advertisements.

Continued Mining Advertisements will be found under another head

Assurance Mining Company.—Location: Occidental Lode, San Benito Mining District, County of Monterey, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the company, 302 Montgomery street, Room No. 4, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. F. BRANDRETH, Secretary.

Office, 302 Montgomery street, Room No. 4, San Francisco, California. ap14

Beard & Seaver Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
H H Allen	26	25	$12 50
H H Allen	27	30	15 00
H H Allen	106	15	7 50
H H Allen	110	5	2 50
Geo M Blake	14	3	1 50
H T Booraem	54	20	10 00
C W Brooks	58	20	10 00
C W Brooks	59	5	2 50
C W Brooks	60	10	5 00
Chas Bertody	64	20	10 00
Wm H Chevers	16	3	1 50
H F Cutler	51	8	4 00
W K Dertrick	18	3	1 50
John Dall	21	3	1 50
W G Deane	96	5	2 50
D B Francis	3	3	1 50
S H Greene	8	5	2 50
R W Heath	7	7	3 50
Sarah Holmes	57	3	1 50
T E Lindenberger	5	3	1 50
T E Lindenberger	87	7	3 50
P C Lander	107	3	1 50
T J Lamb	46	12	6 00
W F Ladd	61	10	5 00
F P McMahon	43	20	10 00
Wm Nicol	1	3	1 50
S Pinkham	42	10	5 00
L B Pierce	75	25	12 50
L B Pierce	76	25	12 50
L B Pierce	77	25	12 50
L B Pierce	78	25	12 50
L B Pierce	79	25	12 50
O A Peck	86	5	2 50
E P Stone	44	15	7 50
E P Stone	45	15	7 50
S B Stoddard	55	10	5 00
J T Saxby	66	25	12 50
L B Seaver	68	25	12 50
L B Seaver	69	25	12 50
L B Seaver	70	25	12 50
L B Seaver	97	8	4 00
J M Stewart	95	5	2 50
R L Taylor	65	25	12 50
John Wightman	12	3	1 50
J H Woods	53	11	5 50
Beard & Seaver Stock account—		147	73 50

And in accordance with law and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 1st day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C FASSETT, Secretary.

Office, 402 Front street, San Francisco. ap14

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County Cal.—Assessment No. 11.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the Office of the Company only.

Any stock upon which said assessment shall remain unpaid on the 12th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. ap14

I. X. L. Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of April, 1866, an assessment of one and a half dollars per share was levied upon the capital stock of said Company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 338 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 17th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 7th day June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary,
ap14 No 338 Montgomery street, San Francisco.

STOCK CERTIFICATES,
STOCK TRANSFER JOURNALS,
STOCK LEDGERS,
ASSESSMENT RECEIPTS,

And all other Blanks, Blank Books, etc., required by Mining and other Corporations, kept on hand or printed to order on short notice, at moderate prices, at the office of the MINING AND SCIENTIFIC PRESS.

Mining Summary.

CALIFORNIA.

The Downieville *Messenger* says the prospects of an extraordinary yield of gold throughout the northern mines are more apparent daily, and reports are coming in from all sections of this county of progress made that will insure these results. The activity manifested in mining of all kinds exceeds anything we have seen for several years, while the present developments promise more largely than usual for the future.

The want for steady day labor are rapidly increasing, and there is not that feeling of compulsion to move that has heretofore been felt among the floating and foot-loose population. True, there are some going after distant mines, but a majority are satisfied to chance it where more sure returns await them. There will be many going to Summit City, which we consider offers better inducements than any distant location, though it is doubtful if those who go will average to do as well as those who remain, excepting, perhaps, the most fortunate ones, among whom we would class those traders who go to do a safe and legitimate business on cash principles.

PLACER COUNTY.—The Sacramento *Bee* of April 5th, says that the mining items in Placer county, which have been under a cloud for some years, are looking up. A private letter from Forest Hill says there is a great excitemsnt there at present, by the discovsry of the great wealth of a large number of old gravel and cement claims, which had been worked for years by the hydraulic and sluice processes, and which were considered worked out, and some of them abandoned as worthless. Recent developments, by the aid of crushing and amalgamating, have demonstrated that the bulk of their mineral resources had really never been touched. In years gone by, Forest Hill was one of the best mining localities in the State, and the old times are reviving.

A correspondent of the Placer *Herald* says that the last rains were of much help to the placer mines in that county.

The miners in the vicinity of New Castle are, very generally, turning their attention to quartz, and some good strikes have been made. The leading claims there are the Pacific and Ad Valorum silver leads, and the Kearsage gold lead. The former company has changed ownership and the new company has gone to work in earnest to develop the mins. Mr. Wm. Penrose, agent of Vivian & Sons, the extensive copper smelters of Swansea, visited this mine a short time since, and pronounced it valuable ore, and stated to the company that he was prepared to buy this ore, at a fair price for shipment. This endorsement of the value of a silver mine in that section will accomplish much in doing away with the idea that it is useless to look for silver in California.

The *Stars and Stripes* of April 4th, says that the Rough Gold company, at Bath, cleaned up last week, from one week's run, 173 ounces of gold. The previous week they cleaned up over 160 ounces. Other companies in the vicinity are doing well, but we have no figures from them.

CALAVERAS COUNTY.—The Copperopolis *Courier* says that never since the discovery of copper in that district, have the mines looked so promising as at present. The Union and Keystone, which head the list, are being placed in condition for extensive operations, and will yield immense quantities of ore the coming summer. The latter mine, under the efficient management of Mr. Sheldon, is about to become dividend property. It is difficult to estimate the value of this mine. From one end to the other, a distance of half a mile, the croppings can be traced without difficulty. Good copper has been found in all the shafts, and everything goes to show the inexhaustibility of the mine. In one year hence the Keystone, it is believed, will take its place among the great paying mines of the world. The Empire, though unprofitable at present, presents unmistakable indications of permanency. The Calaveras has been idle for a long time, notwithstanding the fact that when worked it yielded largely of first class ore. This mine, it is believed, is only surpassed in value by the Union and Keystone. Then we have the Table Mountain, the Caledonia, the Kentucky, the Scorpion, and a score of other and equally valuable mines, the value and extent of whose metalliferous deposits are being satisfactorily tested. A glorious future of prosperity and wealth awaits the owners of our mines. Their energy and perseverance will surely be rewarded.

SHASTA COUNTY.—The Shasta *Courier* says that the season for extensive mining operations leads us to look around a little and see how Shasta miners are going to improve it. Upon inquiry, we find that a company at Middletown are going to erect a flume some half mile in length, to carry water from the Clear Creek ditch to some mining ground, lying along the southern side of Oregon Gulch. This flume will not only furnish the company's claim, which is rich and extensive, but will be of sufficient capacity to afford water for hundreds, who can and will occupy ground below it.

Another company will open a hydraulic claim on the west bank of the Sacramento, about four miles below town, with flattering prospects. These two enterprises begin with prospects as flattering as any we read of, and the quantity of ground thus opened for work is very extensive— sufficient for a thousand or fifteen hundred miners.

The Horse Shoe Bend will be open for work as soon as the waters subside to the capacity of the tunnel, and a river bed of over three miles will be laid bare to the operations of the hardy miner. Persons desiring claims on this ground should soon be making arrangements, for there will be a rush as soon as dry diggings cease to be available.

The Washington Quartz Company cleaned up the last day of March, after running twenty-four days with nine stamps. The result was the snug sum of $5,371.31. For this run the company divided $4,290 to twelve shares—$357.50 to the share. The rock crushed averaged $20 per ton. The company now have their lode stripped one hundred and fifty feet—from top to lowest tunnel—by four hundred feet on the face. There is another tunnel in over four hundred feet, and about forty feet short of the ledge, that will strike it some two hundred feet lower. The editor of the *Courier* is assured that the company can easily select rock from which a run of $15,000 or $20,000 could be had in a few days' crushing, if it was at all desirable to get up a sensation.

ALPINE COUNTY.—We learn from the Monitor *Gazette* that 1,500 pounds of the ore from the Morning Star has recently been tested at the Yellow Jacket Mill, at Empire. The returns give a result of over $85 to the ton, while it is found very easy to work. Any amount of such ore as that worked can be readily obtained. The Superintendent of this mine, Mr. J. C. Ranson, recently visited the Swansea Smelting Furnace, lately erected in Washoe Valley, and from what he learned there is of the opinion that the Star ore can be most profitably worked by smelting. The proprietors of this furnace are positive in their assurances of success with it, and offer to bear the expense of transportation of three tons of the mixed ore and give it a fair trial. The amount will be sent next week. If this proves a success it will enable the company with much less expense to place this mine in a condition to declare dividends.

Mr. E. Arnold, Superintendent of the Monitor Company, has struck the vein within thirty feet in a tunnel run in from near the bed of the Creek in Lexington Canyon. The lode is eighteen inches wide of pay-ore, which he is now taking out and will haul to the mill for a test of its value.

The Winchester Company are now running in on one of their ledges, taking out ore to be sent to the Pioneer Mill. This company have three ledges now open in the course of their tunnel, all containing gold and silver; whether in paying quantities is to be determined without delay.

A vein of ore has been struck in the American from which some of the finest specimens ever seen outside the Morning Star, which, says the Monitor *Gazette*, in some respects it resembles, have been taken; all coincide in the opinion that it is identically the same ledge.

In Silver Mountain district, work is progressing in good earnest. The Rippon Company are hard at work. The rock looks and assays well, and earnest efforts are being made to give it a thorough mill test.

The George Washington Company will be proved within the next sixty days. The Pennsylvania Company have a large ledge of $15 rock in their upper tunnel, and are now running one lower down. Carmichael and Drake are working away on the Mary Francis, confident of success. The old Scandanavian near the mouth of the canyon of the same name, is quietly moving. The Buchanan No. 2, already proved to be one of the richest mines in Alpine, with 50 or 60 tons of pay ore on the dump and any quantity in sight, has been under what we must call a very mistaken policy, sent east to be sold, and must remain idle for sometime. The Lady Franklin Company, owning a claim on the same lode as the Buckeye No. 2, will soon resume operations, under auspices bright and encouraging. The Balaklava Company are meeting with every encouragement in running on their ledge. Altogether, this district is looking prosperously and may congratulate itself on being nearly out of the wilderness.

NEVADA COUNTY.—We learn from the *Union* of April 3d, that a crushing of fifty tons of rock from the New York Hill mine, yielded the snug sum of four thousand dollars, or about eigbty dollars to the ton. This is one of the most promising mines in this vicinity, and when the company have completed the erection of the necessary apparatus for working the mine, we feel assured it will exceed the most sanguine expectations of its fortunate owners. Messrs. Dibble, Byrne & Sykes, of Grass Valley, are, we belisve, the largest owners in the New York Hill claims, Mr. Byrne occupying the position of secretary of the company.

The same paper says that a half ounce vial of dirt from the now celebrated Stockton mine, located two miles below the Forest Spring House, and about six miles from Grass Valley, yielded, after being washed out, six dollars in gold. The gold is very fine and of good quality.

The Eureka mine, under the able management of the Messrs. Watt, still keeps up its reputation as one of the best paying claims in California. The average weekly yield of the mine is between twelve and sixteen hundred ounces of amalgam, which yields about nine dollars per ounce of fine gold. There is a fine furnace attached to the mine, and the proceeds of the mine are melted into bars semi-monthly and forwarded to San Francisco for coinage.

TUOLUMNE COUNTY.—A company on Pacific Flat, near Algerine, says the *Courier*, came across a quartz lead which shows much gold. The lucky fellows have already taken out several thousand dollars, much more of the stuff being in sight. Last Saturday, a Mexican prospecting on Whisky Hill, below Jamestown, struck a pocket, and in a few hours took out a panful of very rich specimens. On Wednesday, a miner on Wood's creek picked up a chispa worth twelve dollars. These things speak well of Tuolumne.

Josephi's new mill, on Bald Mountain, commenced running a few days since. It is of the capacity of five stamps, run by a hurdy-gurdy wheel, and the whole apparatus is pronounced first-class by those competent to judge. The company have a large amount of quartz out, which will, from appearances, yield fairly.

The Sonora *Herald* says the Comstock & Fry Co., have purchased the ten stamp mill known very generally to quartz miners as the old "Wheeler & Thayer" mill, and which was erected and used by its proprietors for custom work, but which will be used hereafter in connection with the aforesaid lead. Started up last week.

The famous Rawhide Mining Company have nearly completed their new twenty stamp mill, which will be, without exception, the finest quartz mill in the Southern mines. The work is being pushed forward with great energy, and the probabilities now are that within sixty days the neighborhood will be startled by the thunderings of its twenty titian trip hammers.

C. T. Meader & Co., are now sinking a shaft for the Chaparral Company, with the privilege of purchasing the mine at a price agreed upon, if the prospects are favorable at a certain depth. Some days back, one thousand pounds of rock, taken from the shaft now being sunk, were taken to Dr. Walker's new mill, just outside of Sonora, and there crushed, the result being forty dollars—at the rate of eighty dollars per ton.

The Golden Rule Mining Company have a very fine lead, from six to eight feet wide. They have been running only five stamps, but have taken out some weeks as high as three thousand dollars. They have now completed a new fifteen stamp mill, with all the modern improvements, to run in conjunction with the old one. The new mill commenced running this week.

The Buchanan Company have also been running but five stamps, but have recently added five more. They started on the 18th. The rock has averaged, so far, about forty dollars per ton.

The Sonora Gold Company are about to erect a fifteen stamp mill, with all the latest improvements, on the old Sell & Martin lead. We understand that this is a New York Company, and their agents are now in this city preparing to commence work as soon as the material can be placed upon the ground.

WASHOE, NEVADA.

A gentleman furnishes the editor of the Lyon County *Sentinel* with the following information concerning the Nevada Smelting Works, at Nevada:

A furnace has been built at Washoe, about one mile from Mill Station, which promises to create a revolution in processes hitherto used for reducing rich ores. The builders and proprietors, Messrs. Edwards, Williams and Richards, all professional smelters from Swansea, have been for the last six months engaged in experimenting upon the fusible properties of our ores. After many failures, arising from difficulty in obtaining suitable materials, and after many experiments, in making of which neither pains nor expense were spared, their efforts have been crowned with success and their most sanguine expectations realized.

They are enabled by their process to reduce three and a half tons of ore in twenty-four hours to within eight per cent. of the result obtained by fire assay. The furnace is built upon the improved reverbatory principle, and is more especially adapted for the smelting of argentiferous galena. The success attending their treatment of Comstock and Truckee ores, as shown last week, is sufficient to convince the most incredulous that their furnace is a decidedly big thing, and has supplied a want long felt in Nevada by those interested in mining. Success to the Nevada Smelting Works.

An array of the ingots of lead produced at this furnace, made by Messrs. Edwards & Wiegand, of Virginia City, showed it to be worth $227.49 per ton in silver.

WALKER RIVER MINES.—The Esmeralda *Union* has been informed that a New York company have purchased an interest in the Walker River mines, and are driving business along in a highly creditable manner; also, that the mines are looking well and they are to have a mill erected immediately, which will test the matter more thoroughly.

The *Enterprise*, of April 6th, says:

The trouble with water in the Ophir is very trifling—nothing near so bad as we were led to believe and were induced to state in our item a day or two since. The truth is that no very great difficulty has been experienced in mining upon the lower level. One set of timbers was displaced by a slide in the vein; otherwise all is right.

The *Union* of the 6th inst., speaking of the rich strike in the Yellow Jacket mine, says it was made on Saturday last in their south shaft, down some five hundred feet. So far, the rock taken out will "mill-work" upward of $900 per ton. The quartz shows the same kind of sulphurets as the Kentuck and Crown Point. In this strike of the Yellow Jacket mine is one of the many evidences which of late are showing that our mines on the great Comstock lode are truly on the "come out" with their rich bullion.

Everything is progressing finely at the new Savage Hoisting Works. A large portion of the machinery is in place, and one engine is already is use hoisting from the shaft which is now down 430 feet, and steadily being driven downward. When this shaft is down to a proper depth, it will give the company great command over all the upper portions of the vein. The works being wholly on sound ground, there will be no trouble with the machinery from the settling of the earth under the foundations of the engines.

Another new mining region is reported at the head of the American river, in the same range of country, we presume, as Summit City, only further north. The diggings are reported to be "marvelously rich," and supposed to be the spot where a party of Frenchmen took out some $100,000 each in 1862.

Still another new mining district has been discovered in the White mountain, about fifty miles southeast of the Silver Peak District. Sixteen lodes have been located, ranging in thickness, at the cropping, from three to twelve feet. The district has been named "White Mountain. Some of the veins exhibit gold without a trace of silver; others contain both gold and silver.

REESE RIVER, NEVADA.

The *Reveille* says that the Assessor's books give the returns of a crushing of thirteen tons of ore recently obtained from a claim on Lander Hill, at $10,691—an average of over $800 per ton. The mine is known as the Blind Ledge, owned in whole or in part by Walker and Fuller, and situated on Lander Hill, a short distance below the Oleander, was worked by J. W. Varney, at the Ware mill, and yielded the splendid amount above named.

Interesting reports are coming in from the Twin River country. Scarcely a day passes, says the *Reveille*, in the course of which there is not occasion to mention some handsome development in some one of the numerous locations in that region. The ores that are assayed from that region, generally yield from $150 to $300 per ton in silver with a very little gold. They are mixtures of chlorine and sulphurets; the latter, of course, will predominate in depth.

A supposed extension of the well known Murphy ground, two miles south of the original, is now being developed with good success. The ore assays over $300 to the ton—picked rock we presume. The ledge is said to be very large, fully twenty feet thick cropping out of the ground. The ore assayed was taken from a point twelve feet above the surface.

Two other claims, known as the Green Mountain and Fairmount have recently been

located in this district; the former by T. Warburtao, and the latter by Messrs. Barnes & Davis. Surface tests from both claims are very encouraging. They have been sold to Eastern capitalists.

The Twin River district is located on the eastern side af the Toiyabe mountains, Nye county, twenty miles east of lone city, nnd fifty miles southeast of Austin. The richness and permanency of the mines of this district appear to be very generally coneeded by all who have visited them.

The Reese River region is destined to become quite as celebrated as the more accessible but not richer Washoe section on the western borders of Nevada. A late number of the *Territorial Enterprise* informs us that the Lea mine, San Antonio district, will yield $3,000 to the ton. This lead is nine feet wide and all pay rock. Tha mine is owned and worked by Messrs. W. H. L. Barnes and Geo. Hunt. During the past year they have erected a large mill and reduction works near the mine, und the latest accounts confirm the extraordinary statements given above. The San Antonio district has been long considered one af the richest in Nevada, and this practical demonstration of its wealth ranks it amongst the most valuable on this coast.

The editor of tho *Reriellе* thinks this is "important if true;" but fears it may bo jast a trifle exaggerated.

Mining Statistics.

A paper was recently read by Dr. R. P. Stevens before tho Polytechnic Institute, N. Y. upon the mining interests of tbe United States, which coatained tho following valuable statistics:

By the National Census Statistics of 1860, the mining products of the country, including those economies closely allied to it, as quarrying of marble, diggiag clays, etc., the annual aggregate amouat is $106,894,460, and the manufacturing intcrests growing immediately out of mining, amounted in the year to $505,398,000, while the whole manufactuto of the country amounted to $1,895 861,000. The mining interests is tbus already one-third of the whole.

An cxamination of the mioing statistics in detail affords some very important and interesting facts. Iron, for instance, in the rough ore, just brought to the surlace, is the ore of least value per ton, but when maaufactnred, the $7,723,000 of raw material iacrease to $132,724,000, wbile gold, which is the most valuable of ull metals, immediately upon raising in its increased value in manufactures, is least a all in proportion to the amount raised. Of $47,566,000, only $19,835,000 enter into the mnnufactures of the country. Lead and copper both yet exceed this metul in aggregate value.

The economies of coal afford another very interesting field of exploration. The amouat of this fuel raised to the surface was $20,343,000, of which $8.369,000 was bituminous. Ol this tho value of $4,000,000 was manufactured into gas, with an increased valne of $12,030,000. Tbe consumption of gas leads to the aecessity of gas-fixtures of various kiads, and these amount to $2,695,500, confiaed to the States of Massachusetts, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Illiaois.

The amount of coal consumed in the various kinds of steam engines, ia producing mechanical force, thus adding to the power of man, and cheapening his labor, is equivaleat to addiag to tbe laboring force of the country a population of twenty-eight millions of mea, working eight hours a day. It gives employment to thirty thousand workmen, womeu and children in this city, who aaaually earn to tbeir employers $50,000.

Pennsylvaaia takes the lead in miaing coal, Ohio follows, and thea succeeds Illinois. Ia 1850, this latter State had but two or three well establisbed collieries, and must have ranked at that time the sixth ia the amount raised.

Rich Sulphurets in Placer County.—The Placer *Herald* says tbat experiments have recently been made by Messrs. Choate and Pugh, of Ophir, which developed the fact that the sulphurets in the quartz of that region are rich in gold. Ia an experiment made by Mr. Pugh upon sulphurets taken from the Sonora ledge, the yicld was at the rate of $1,800 per ton. Mr. Choate got from the sulphurets of the San Francisco company at the rate of $2,240 to the ton.

Mr. Pugh is now erecting a coaceatrator ia his mill to save sulphurets—when this is done large yields may be expected from quartz crushed at his mill.

Tbese facts are cbeeriag indeed. For it is well kuown tbat the quartz veins aroaad Ophir aad Auburn are well filled with sulphurets, as well as free gold.

(Written for the Mining and Scientific Press.)

Mining in Mount Diablo.

Editors Press:—During the past four months I have repeatedly visited the mines situatad in this delectable mountain, and, in a mining point of view, I am very much pleased with my sojourn in this mast interesting locality, as it afforded ma an opportunity of ascertaining the bearings, etc., of the different stratas in which are found veins of copper, cinnabar and coal. Of this latter mineral the supply appears inexhaustible.

The Cumberland coal mino shows a healthy aspect, and the rnising of 200 tons per day will soon be made available, the increaso of which entirely depends upon the management of the mine, and a more expeditious modo of transportation. In passing along to the Peacock mine we find a great deal of work done, but to little purpose. The merits af this property will place it in juxtaposition with the far-famed Black Diamond. Practical development will verify the assertion. We now notice the San Francisco coal mine, which I believe is under the able maaagement of B. Joaes, Esq. Here things are kept agoing as regular as clockwark, and receat developments augur well for the futare of this invaluable property. I use the word *invaluable*, because nothing equal to it has as yet been discovered ia the coal range of Mount Dinblo.

The newly-sslected place for the base of futare operations was judiciously planned, and resulted in a valuable discovery of coal tweaty four feet below tho surface. The vein is three feet wide, of which two fect produce remarkable coal of rather superior quality at such a shallow depth. Should this mine be vigorously worked, tho preseut year will put the proprietors ia a position to raise 150 toas per day, with ample reserves when needed.

Underaeath this splendid veia of coal *is found a bed of fire-clay*, of superior quality, the genuineness of which has been proved beyond a doubt. A plan of operations is on the tapis for making fire-brick, which I have no doubt will be commenced immediately, and my conclusion is, that the result will be the production of an article aever as yet equaled ia Califoraia.

THE COPPER MINES.

The prospects of the copper mines are truly encouraging, and their merits call for energetic development. I believe the Wihooken, as a copper mine, bears the palm of a *bona fide* speculation; a sample of the ore assayed at San Francisco gave a produce of 23 per cent. of copper. This encouraged the shareholders to prosecute the work vigorously, so they at onco commaenced a drift on the course of the lode leading towards the bunch of ore gone down in the bottom of a shallow level. Should they strike it so rich in the present drifts, the merits of Mount Diablo will be fully estab lished as a copper-bearing district, and the fortunate shareholders will be amply rewarded for their labor.

The Nucleus is another very promising mine, and one likely to turn out a good thing. The recent discovery is a very important one, and should stimulate those interested to more vigorous operations. There are other mines equally as promising as those already named, aad I have no doubt, if worked with enterprising spirit and practicable management, many of them would prove valuable. Thousands, aay, tens of thousands, of tons of ore can be taken out of Mount Diablo, which will give an average yield of from four to eight per cent. of copper, and with some cheap mode of dressing it, could be brought to ten or even fifteen per cent. Hence, it is obvious that the erection of furnaces would be the salvation of the mines! Without this is done, I fear the copper mining interests will be slow and tedious; but should a company be formed, and furnaces erected, I am confident that hundreds of hands would be employed—the miners would do well, and the smelters would do better, and that many a hundred tons of copper would be returned per annum from Mount Diablo.

Superintendent.

Coal in Oregon.—The Oregon State *Journal* states that Waud & Moore are opening a coal bank about two miles south of Eugene City, which gives good evidence of being valuable. At the depth of sixty feet, it is of a quality much improved over that at the beginning of the tunnel. It is yet somewhat mixed with slate, but burns well. Waud discovered the croppings two years ago.

Lake Superior Copper.—The total copper product of Lake Superior ia 1864 was 8,561,999 tons, producing about 6,850 tons ingot copper, wortb $6,859,000.

The Origin of Things.

Days of the Week.—In the Museum of Berlin, remarks a writer in a Newark paper, in the hall devoted to Northern antiquities, they have the representations of the idols from whom the names of the days of the week are derived. From *Sun* comes *Sunday*. This idol is represented with his face like the sun, holding a burning wheel, with both hands on his breast, signifying his course around the world. The idol of the *Moon*, from which cometh *Monday*, is habited in a short chuk, like a man, but holding the moon in his hands. *Tuisco*, from which cometh *Tuesday*, was ane of the most ancient and peculiar gods of the Germans, and is represented in his garment of skin, according to their peculiar manner of clothing. The third day of the week was dedicated to his worship. *Woden*, from whence *Wednesday*, was a valiant prince among the Saxons. His image was prayed to for victory. *Thor*, from whence *Thursday*, is sented on a bed with twelve stars over head, holding a sceptre in the right hand. *Frygo*, from whom we have *Friday*, is represented with a drawn sword in his right hand, and a bow in his left. He was the giver of peace and plenty. *Seater*, from whom is *Saturday*, has the appearance of perfect wretchedness; he is thin visaged, long haired, with a long beard. He carries a pail of water in his rigbt hand, wherein are fruits aad flowers.

First Use of Papea Money in America.—The first American colonists used pelting and wampum substitutes for coin. In 1640, the Couneil in New Netherlands petitioned to raise tho value of money in their colony, in order to prevent its exportation. Afterward, Governor Stuyvesaat tried to introduce a specia currency, and to establish a mint at New Amsterdam. New England already had her mint. Massachusetts was the first of the colonies to uso paper money. In 1690 it issued bills to the amount of seven thousand pounds to pay the soldiers engaged in the expedition against the French in Canada. Twelve years after, Carolina issued paper money to pay her soldiers. Three or four years after, a paper money Act was passed in the island of Barbadoes. A little after, ia 1703, Coanecticut and New York passed enactments creating bills of credit. The low state of the currency at this time in New York was thought to arise from the fact that most of the forcign trade of the country came through Boston and other New England ports, drawing thither money and produce. In 1695 the difference between New York and sterling money was about one-fifth; in 1700, about the quarter. The present legal rate of interest in New York (seven per cent.) was established in 1738.

A Beautiful Illustration.—At oae of the anniversaries of a Sabbath School in London, two little girls presented themselves to receive the prizes, one of whom had recited one more verse than the other, both having learned several thousand verses of Scripture. The gentleman who presided inquired, "And could you not have learned one verse more, and thus have kept up with Martha?"

"Yes, sir," the blushing child replied; "but I love Martha, and *kept back on purpose*"

"And was there any of all the verses you have learned that taught you this lesson?" again inquired tbe President.

"There was, sir," she answered, blushing still more deeply: "*In honor preferring one another.*"

What is Saleratus?—Wood is burnt to ashes, wie laxivated, aad ley is the result. Ley is evaporated by boiling, black salts is the residum. The salt undergoes purification by fire, and the potash of commerce is obtained. By another process we chauge potash into pearl ash. Now put these in sacks and place them over a distillery wash tub, where the fermentation evolves carboaic acid gas, and the pearlash absorbs it and is rendered solid; the product being heavier, whiter and drier thaa the pearlash. It is now saleratus. How much salts of ley and carbonic acid gas one can bear and remain healthy, is a question for a saleratus eater. Some people say saleratus will act harm the stomach. It is a *ley*.

Sleeping With the Head to the North.—Herr Dr Julius Von Fiechweiler, an eccentric Germaa physician, recently died, leaving in his will what he considered a secret for increasing the years of our life. His own age was 109, and he attributed it to the fact that he always slept with his head to the north, and the rest of his body, as nearly as possible, in a meridianal position. By this means, he thonght the iron in his body became magnetized, and thus increased the energy of the vital principle.

Life is like a field of blackherry aad raspberry bushes. Mean people squat dowa and pick tbe fruit, ao matter how tbey black their fingers; while genius, proud aad unbeading, strides fiercely on, and gets aothing but scratches, and boles toru io his garments.

MINING AND SCIENTIFIC PRESS

PATENT AGENCY.

For the Pacific Coast.

Office of the Mining and Scientific Press—No. 505 Clay street, corner of Sansome, San Francisco.

Information for Inventors!

Inventors on this coast having their applications for patents made out through our Agency can sign their papers at once, and thus secure their rights at least three months sooner than by trusting the same to distant agencies, situated in New York or Washington.

The first question that presents itself to the Inventor, who desires to procure a patent, is: "Can I obtain a patent?" A positive answer to this question is only to be had by presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate, drawings, and the payment of the prescribed official fees. Aside from these steps, all the inventor can do is, to submit his plans to persons experienced in the business of obtaining patents, and solicit their opinion and advice. If the parties consulted are honorable men, the inventor may safely concede his ideas to them, and they will inform him whether or not his invention is probably patentable.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall be happy to see them in person at our office, or to advise them by mail, or through the Mining and Scientific Press. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice, we make no charge. A pen-and-ink sketch, and description of the invention should be sent together with a stamp for return postage. Write plain; do not use pencil or pale ink; be brief.

Remember that all business committed to our care, and all consultations, are kept by us secret, and strictly confidential.

Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, and which is adjudged to be novel, and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee under the new law is reduced to ten dollars; and this sum does not apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will ofttimes find it very important to take advantage of the caveat system—the expense under the law being comparatively small.

To enable us to prepare caveat paper, we only require a sketch and description of the invention; no model being necessary.

Expense of Applying for a Patent, Rejections, etc.

Under the new law, the Government fee, on filing an application for a patent, is fifteen dollars; and if the patent is allowed, fifty dollars additional is required. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian Spanish, and Inventors of every nationality, may now obtain patents in the United States upon the same terms as our own citizens. The only discrimination made is against subjects of government that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added the Attorney's fees for preparing the various documents and drawings. Our charge for preparing a case, procuring it to the Government, and attending to all business connected with it, until a decision is given, is from $20 to $40. If the patent is granted no further agency expenses ensues. If the application is rejected we cause thorough investigation to be made into the reasons presented to the Commissioner for refusing the patent. In making this examination, our Washington agent has access to all the drawings, models, books and specifications cited in reference, and we report the result as early as possible to our client.

If the rejection proves to be an unjust one—which sometimes happens—it can generally be reversed, and the patent obtained by contesting the case. For this prosecution we charge a fee proportionate to the extra labor involved, payable only on the issue of the patent; but our demand will be reasonable and satisfactory to our clients, and will be arranged beforehand by special agreement.

The system adopted by us works well, gives general satisfaction, and presents to all applicants, however poor, the equal opportunity of having their patent cases prepared, conducted and prosecuted in the best manner, by experienced attorney's, upon the most moderate terms. Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain the prospects of success by further efforts, are invited to avail themselves of our unequalled facilities in securing favorable results. We have been successful in securing Letters Patent in many cases of such a matter. Our terms fe such cases are very moderate.

Models, Remittances, etc.

The law requires that the Inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimensions; it should be neatly made, of hard wood or metal, or both, varnished or painted; the name of the inventor should be engraved or painted on it conspicuously.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should be sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully boxed and shipped by express or otherwise, to our address, namely: Dewey & Co., Mining and Scientific Press, No. 505 Clay Street, corner of Sansome, San Francisco, Cal. Prepay expenses and send express receipt to us by mail.

Simultaneously with the model, the inventor should send us the first installment of the Government fee, fifteen dollars. The money may be forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payable to our order. Always send a letter with the model, and also the remittance stating the name and address of the sender.

A full description should also be sent with the model, embodying all the ideas of the inventor respecting the improvement.

On the receipt of the model and Government fee, the case is duly registered upon our books, and the application proceeded with as fast as possible. When the documents are ready we send them to the inventor by mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to be issued the Government fee, namely, twenty dollars.

Inventors who do business with us will be notified of the state of their application in the Patent Office, when it is possible for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication; the business can be well done by correspondence.

When the invention consists of a new article of manufacture, or a new composition, samples of the separate ingredients, sufficient to make the experiment, and also of the manufactured article itself must be furnished.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of officials, the period is sometimes extended to four or five months, and even more. We make a special point to forward our cases as rapidly as possible.

Patent Office Fees, and How Payable.

Nearly all the fees payable to the Patent Office are positively required by law to be paid in advance.

The following is the Government tariff of fees established by law:

On every application for a design, for 3 yrs and 6 mos...	$10
On every application for a design, for seven years.....	15
On every application for a design, for fourteen years.....	30
On every application for a patent, for seventeen years...	15
On every caveat.....	10
On issuing each original patent.....	20
On filing a disclaimer.....	10
On every application for a re-issue.....	30
On every additional patent granted on a re-issue.....	30
On every application for an extension.....	50
On the grant of every extension.....	50
On appeal to the Commissioner from Examiners-in-chief	20
On every appeal to the Judges of Circuit Court, D. C....	25

We have had successful experience in conducting these appeals and our services are rendered on moderate terms.

N. B.—We make out our own forms for applications, etc., and would respectully inform all parties that we have no printed blank forms for sale.

DEWEY & CO., Agents,

Mining and Scientific Press Office, No, 505 Clay street, corner of Sansome, San Francisco.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

O. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.
SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.
SAN FRANCISCO, Jan 11th, 1866.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:
Saturday Morning, April 14, 1866.

Look Out for Illegal Advertising!

All assessments of corporations levied on, or subsequent to, March 26th, are governed by the new law approved on that day. We notice that some of our important mining companies are advertising their assessments illegally in the daily and weekly press of this State. As the new law is more liberal in its provisions for advertising than the Act of 1864, these companies have yet time to retrace their steps and begin anew and right. We speak of the matter for the benefit of all concerned. We have prepared a set of correct blank forms for advertising assessments, which we furnish free on application at our office, together with rules for advertising and copies of the new law.

Judicious Resolutions.

Several of our most substantial and judiciously managed mining corporations have passed resolutions, since the approval of the new assessment law, requiring all notice of assessments and sales to be published in the MINING AND SCIENTIFIC PRESS, the only thorough (daily or weekly) mining journal on this coast. Our efforts to concentrate all mining advertisements in one paper, for the economical convenience of shareholders and assessment payers, are meeting with decided success. Those who believe in supporting the mining cause, should bear our paper in mind, and bring up this subject at the next trustee or shareholders' meeting.
San Francisco, April 7th, 1866.

Mining Laws of 1866.

It is our intention to issue, in cheap pamphlet form, previous to May 1st, a full and correct copy of all laws relating to mining adopted by the California and Nevada State Legislatures of 1866. Some of these Acts are of vital importance to every citizen interested in mining.—April 1st, 1866.

ALUM MINES.—The Clear Lake *Times* tells of the discovery of an alum mine, or deposit of alum, in that region. A correspondent writes to the *Times*: "I have about one pound of pure alum, beautifully crystalized, obtained from the imperfect washing of six or seven pounds of aluminous clay, which was taken from the Kelsey Creek alum bank. The bank is most favorably located for working."

THE QUARTZ MINES OF GRASS VALLEY.

The magnitude of the quartz mining interest of California is just beginning to be approximately realized by capitalists abroad. The unfortunate results of the early attempts at that description of mining in this State, particularly those in Mariposa county, where the advantages of ample capital, the highest scientific acquirements and the most experienced skill attainable was freely brought to bear, produced such a discouraging effect upon the business, as for a time to quite deter any further investment of foreign capital in that direction. Even our own capitalists could not for a long time thereafter be induced to look with any considerable degree of favor upon quartz mining; and, up to the Washoe discovery, the fact that a San Francisco merchant was known to be investing in quartz, was quite sufficient to ruin his credit throughout the entire mercantile community.

In the meantime, however, a few men of means in Nevada and Amador counties, quietly but perseveringly continued their operations, with varied success and under most discouraging circumstances, until by the gradual depreciation of labor and materials, the cost of raising and crushing rock was reduced to a paying basis. About the time this period in the history of the business had arrived, the world was suddenly startled by the wonderful silver discoveries on the Comstock lode in Washoe.

The extraordinary yield of the surface ores at the points first opened upon that lode, produced a complete revolution among the hitherto doubting money-changers of San Francisco. The consequence was a general rush for the new mines—large fortunes for a few, and utter ruin for the many. Several years passed by and stocks which had gone up, under the excitement, to thousands of dollars per foot, suddenly fell to as many hundreds; while the great majority of them became utterly valueless—not worth even the paper upon which they were printed.

In the meantime, most of the old pioneer quartz men of Grass Valley, continued on in the quiet, even tenor of their way, working cautiously and economically, and going down gradually with their inclines, so fast only as the mines themselves would pay the way; carefully eschewing assessments, and avoiding costly structures, for mill houses or superintendents' dwellings, and employing no managers in either mill or mines, but men of experience and skill. The result of such a policy was that when the crash came upon Washoe, the mines of Grass Valley shone forth in their true colors, growing richer as the work progressed in depth, and exhibiting to the world a record of steady, onward progress, and a development of permanence nowhere exceeded in the whole history of mining. All this was accomplished, almost without a dollar of foreign capital; that which has since gone there has been attracted thither by actual developments, and has been expended with the view of permanent and productive investment.

In taking a general survey of the field of quartz operations throughout the State, the mines appear to be grouped together at intervals along a belt of country, extending about 400 miles in length and occupying the entire western flank of the Sierra Nevada mountains, from their very summit quite down to the foothills. These groups, so far as present explorations have gone, are widely separated; although it is far from certain that even the intervening country may not contain almost innumerable groups of greater or less degree of value.

The most valuable and thoroughly prospected of these groups is that at Grass Valley. The altitude of those mines is about 2500 feet. Their geological association is greenstone and syenite, with a heavy belt of serpentine on the north, separating it from the mines of Nevada, still further north, and which are mostly located in granite. So far as explorations have been made, no other district in California, or elsewhere, has ever been found to equal this group in either the number or richness of its mines. As a general thing these veins have a northerly and southerly direction; but the rule is far from universal. In fact some of the most valuable, as the Eureka, for instance, is almost due east and west; the Lucky, Cambridge, North Star and others of equal value, are nearly so. They are all isolated, and not continuous. When accurately delineated upon a map, a work which is now being done with great care and at much expense, they present every variety of direction, inclination, dip and angle. One, in particular, and perhaps the richest of the group, presents walls and dip almost like the walls of a bowl from which about one-third of its circumference has been removed.

We are led to infer from these facts, and contrary to the generally received opinion, that the peculiarities mentioned are of no value whatever in determining the paying qualities of a lode. The formation of the lodes, and the aggregation of the mineral is undoubtedly due to the character of the country rock. How they have been aggregated is a mere matter of speculation. The most essential point is to find a group so aggregated and well filled with mineral. The explorations already made are such as to set at rest all doubts as to their permanence; and to warrant the most liberal outlay of capital in providing machinery to follow them down to an indefinite depth. The lowest point yet reached in Grass Valley is a little over 300 feet; but the Eureka mine, in Amador county, has been followed down more than 1000 feet in depth, at which point this, as well as all the deep mines in Grass Valley, is found to pay equally well as at any point above, while the constant decrease in the cost of working, by the diminution in the price of labor and the improvement in machinery and skill for saving the precious metal, more than compensates for the increased cost of mining at a greater depth.

One of the most noticeable and important features in Grass Valley is the fact that not a single failure has occurred to find pay ore where any considerable depth has been attained; and nearly every mine has paid its own way from the start. The mines of Grass Valley have been developed without any of the cumbrous machinery necessary to incorporated companies, with their salaried officers and monthly or quarterly calls for assessments. There is not another locality on the globe, in which so much mining has been done, where the same record can be shown. These simple facts are sufficient to establish the pre-eminence of Grass Valley over all other localities as a place for the permanent investment of capital.

In saying thus much of that locality, we are not aware that we are speaking disparagingly of any other quartz mining section in California. If we are not mistaken, there is not a quartz mine in the entire State, which has been opened to the depth of the deepest mines in Grass Valley—say three hundred feet—which is not to-day a paying mine. These facts—and we believe they *are* facts—ought to open the minds of capitalists everywhere, to the value of the gold mines of California as an illimitable field for the permanent investment of capital.

HUNTER'S CONCENTRATOR.—Mr. Hunter, of this city, has recently spent several months in Grass Valley, giving his machine for concentrating sulphurets, a thorough practical test. The result of his experiments has been several important modifications and improvements over the machine, as hitherto constructed, by which its efficiency is said to be enhanced, while its cost has been greatly decreased. He is now constructing several of these machines which are to be placed in the new mill of the Empire Company, now in process of erection at Grass Valley. We may shortly give a full and illustrated description of this concentrator, with the latest improvements and modifications.

The commercial importance of Cincinnati may be figured from the value of some of the leading reports of 1865, as follows: Iron, $5,405,936; cotton, $32,103,470; coal, $6,584,062; petroleum, $1,120,350; salt, $1,184,736.

OIL WELLS IN BURMAH.

It is quite well known that the European market has been supplied with petroleum or rock oil from Burmah for many centuries; but the impression has generally prevailed that the supply has been derived from springs. Such, however, is not the case. Oil wells, similar to wells dug for water, have been used from time immemorial for supplying the market with this useful substance, which, however, until quite recently, has generally been used in its crude state. The Rev. Howard Malcom, who visited the vicinity of some of the wells situated near a village in the river Irrawaddy, and some 300 miles from its mouth, gives a very interesting and probably the most reliable account of them ever published. We give the following extract from one of his letters, dated June 28th, 1836, some twenty years anterior to the sinking of the first oil well in Pennsylvania:

The wells are two miles from the village. The road to them is well beaten by bullock carts, often crossing the bed of the torrent (now dry) whence the village derives its name. A more rugged and desolate region can scarcely be imagined. The rocks are sandstone, puddingstone and petrifactions; the soil, sand and blue clay. Small hills on every side rise abruptly, like waves in a chaffed sea, sterile and unsightly.

The wells are very numerous, said to be more than 400, occupying a space of about twelve square miles. They are from 200 to 300 feet deep, of small calibre, and sustained by scantling. The temperature of the oil when first raised to the top is 89°. Men do not go down, but an earthen pot is lowered in and drawn up over a beam across the mouth, by two men running off with the rope. The pot is emptied into a little pool, where the water with which it is largely mixed subsides, and the oil is drawn off pure. It is exported in earthen jars containing about thirty pounds. The price now, including the pots, is about a tical for 2½ viss, or about fifty cents for ten pounds. A well yields about 400 or 500 viss per day, and is worked by three or four men. Sometimes 700 are obtained. Each well gives a daily average of 150 gallons. The gross annual product is eighty million pounds.

This most useful oil is very extensively used for lamps and torches, and is exported to all parts of Europe where it can be taken by water. It is also used for preserving wood, mat partitions, palm-leaf books, etc., from insects and from the weather, and is an admirable article for these purposes. Even white ants will not attack wood which has been brushed with it. A boat's bottom kept properly in order with it is about as safe as if coppered.

It would appear, from the above, that the oil regions of Burmah are very similar in character to those of California. Flowing wells do not appear to have been found there; but a great number of openings are made by sinking wells into the oil strata, into which the oil percolates with the water, and from which both are drawn up and separated as above described. Such wells resemble what are here called "pumping wells." Present developments appear to indicate that a similar mode of operation will have to be adopted in California for obtaining petroleum; pumps will, however, be employed here instead of the primitive mode of raising the water employed in Burmah, and the augur will be used instead of the shovel for sinking the wells. The wells of Burmah have been worked for centuries, and there is every reason for believing that those of California will be equally permanent. There can be no doubt but that with our superior appliances they can be made profitable. It is not necessary that we should find flowing wells here to make the business pay, albeit such developments would be most welcome to the oil-seekers.

BULLION FROM REESE RIVER.—We learn from the *Reveille* that the amount of bullion shipped by Wells, Fargo & Co., from Austin, Reese River, during the month of March, was was $33,980 in value, weighing 1,926 pounds. The National Bank of Austin shipped during the same time bullion to the amount of $35,113.

RICH ROCK.—A single blast was let off a few days since in the Enterprise claim, Excelsior district, which threw out seven tons of as rich rock as is often seen in any part of the country. So says the Virginia *Enterprise*.

Queries.

Editors Mining and Scientific Press:—I notice in the editorial columns of the *Miner* for April the following statement: "Gold has no affinity whatever for sulphur, and, therefore, never chemically unites with it."

Will the author of this statement be kind enough to inform us what constitutes the black precipitate which is obtained, as every tyro in chemistry knows, when hydrosulphuric acid is added to a solution of terchlorid of gold?

I should also be grateful for a little information from the writer of an editorial in the same paper, upon *Emery* and *Emerylite*. In that article, specimens which are called "true Emerylite" are described as being nearly or quite black, and as having "much the appearance of the fracture of coarse grained cast iron after it has been exposed to the atmosphere till it has lost its brightness," or as "presenting much the same appearance as a mass of coarse iron sand, such as is usually found when 'panning out,' which has been heated sufficiently to combine the grains without melting them." It is also stated that the same mineral is nearly twice as heavy as common quartz rock, that it will scratch glass, but will not mark quartz, and that it consists of about 50 per cent. of alumina, 30 per cent. of silica and 7 per cent. of iron, the remainder being lime, water, and soda.

Now Dana states that Emerylite is *foliated* like mica, that it occurs either in coarse plates or in masses consisting of aggregate *spangles*, that its color is white, that its hardness is 3.5 to 4.5, and its specific gravity 2.995. The hardness given by Dana then for Emerylite, is *not* sufficient to scratch glass, and the specific gravity would make it only about one and one-seventh times as heavy as quartz. Moreover, in six out of eight analyses of this mineral given by Dana, no iron was detected, and of the other two analyses, in one there was but a *trace* of iron, and in the other considerably less than 3 per cent., while the smallest proportion of lime in any one of the eight analyses was over 9 per cent.

Since the two preceding descriptions differ, then, in so marked a manner, both as to physical properties and chemical composition, will the writer of the article referred to, inform us upon what grounds he decided the mineral in question to be Emerylite?

As the organ of the "Mining Bureau" is supposed to be reliable in scientific matters, I should like to see the *modus operandi* by which these descriptions are reconciled, or Dana proved wrong, as the case may be.

Enquirer.

The Ring Suspended by a Burnt Thread. Dissolve a teaspoonful of salt in a wine-glassful of water, and place in it some coarse sewing cotton; in about an hour take out the thread and dry it. Tie a piece of this prepared cotton to a small ring, about the size of a wedding ring; hold it up, and set fire to the thread. When it has burnt out the ring will not fall, but remain suspended to the astonishment of all beholders. Philosophers account for this effect by stating that the salt in the thread forms, with the ashes of the cotton, a fine film of glass, which is strong enough to support the ring, or any other small weight.

Curious Experiment.—Procure a basin of milk-warm water, throw into it half-a-dozen pieces of camphor about the size of a pea; they will soon begin to move, and acquire a rotary and progressive motion, which will continue for a considerable time. If now, one drop of oil of turpentine, or sweet oil, or even of gin (if allowed on the premises), be let fall upon the water, the pieces of camphor will dart away, and be deprived of their motion and vivacity. Little pieces of cork, that have been soaked in ether, act much in the same way as camphor, when thrown upon water. Camphor, being highly combustible, will burn if ignited while floating upon water, producing a singular effect, reminding one of the lamps which the Hindoo maidens cast upon the waters of the Ganges as mystic messengers to their distant lovers, or to their spirits after death.

Annual Report of the Commissioner of Patents.

The Annual Report of the Commissioner of Patents has just been completed. From it is inferred that during the last year the prosperity of that office was unprecedented, and the business has increased to such an extent that more clerks and additional rooms are necessary. The subjoined statement of the receipts and expenditures of this office for the year 1856, and the condition of the Patent Fund at its close, will give an idea of the immense business that has been transacted:

Number of applications for patents during the year	10,664
Number of patents issued, including re-issues and designs	6,616
Number of caveats filed	1,937
Number of applications for extension of patents	78
Number of patents extended	61
Number of patents expired, December 31st, 1865	914

Of the patents granted, there were, to—

Citizens of the United States	6,423
Subjects of Great Britain	82
Subjects of the French empire	40
Subjects of other Foreign Governments	60

Statement of money received during the year, namely:

On application for patents, re-issues, etc.	$321,572 20
For copies and for recording	27 219.64
Total	$348,791.84

Statements of expenditures from the Patent Fund:

For Salaries	$100,032.54
Contingent expenses	75,244.43
Temporary clerks	97,453.37
Withdrawals	420.00
Refunding money paid by mistake	649 00
Judges in appeal cases	400.00
Total expended	$274,199.34

Statement of the Patent Fund—

Amount to the credit of the Patent Fund January 1st, 1865	$55,592 29
Amount of receipts during the year	348,791.84
Total	$404,384.12
Leaving to the credit of the Patent Fund January 1st, 1866, the sum of	130,184.78
Surplus of receipts over expenditures	74,592.50

The unprecedented activity of the mechanical industry of the country, since the close of the war, is strikingly manifested by a comparison of the business of this office for the last with that of the year previous:

During 1864, the number of 6,972 applications for patents were filed, against 10,664 for 1865; 1,063 caveats filed against 1,937—the increase is most unprecedented.

Beautiful Things are suggestive of purity. They have a delightfulness that wins us, an excellence which we can but admire and reverence. Beautiful works of art or the beautiful things of nature alike inspire this ennobling feeling. All may thus be benefited. Those of our young friends who are not blessed with parents that are wealthy and able to adorn their dwellings and grounds with works of art, may nevertheless freely indulge their modest aspirations by cultivating flowers.

Keep a vase of flowers on your table. Nothing is more beautiful, and few things will help more to cultivate your taste for the elegant or maintain your dignity among your friends and neighbors. A taste for such things should early be cultivated. It will secure for you, consideration among your associates, and inspire you with every ennobling principle.

Who ever saw a cottage ornamented with flowers that was not the abode of thrift and happiness? The children of such a household will ever be noted for their kindness, intelligence and gentleness. Trees and flowers are so interwoven with our ideas of beauty and comfort, as to be almost inseperable from a pleasant, happy home. A palace of a house, with all its noble proportions, its rich adornments, its spacious apartments and its costly furniture, but without the surroundings of the flower-encircled cottage, is comparatively cold and cheerless. Give us a little domestic Eden for our ideal of home comfort. Let our young friends strive to cultivate a similar taste in their childhood, and in after life they will find it far more productive of happiness than silver or gold.

Varney's Concentrator.—The new concentrator recently invented by Mr. Varney, and exhibited at his place on First street, in this city, is attracting much attention from millmen. It will soon be put to a practical test at one of the mills in Grass Valley. We shall give an illustrated description of it as soon as the necessary engraving can be prepared.

Interesting Petroleum Discovery in West Virginia.—We are permitted to make the following interesting extract from a letter received per last steamer by Prof. Rowlandson, of this city, from Prof. Chas. S. Richardson, of New York. The locality referred to is near Parkersburg, West Virginia:

"We have been making some extraordinary developments here the last six months; we have wells producing 200 barrels of heavy lubricating oil per day, worth $40 per barrel [ordinary petroleum is worth about $10 per barrel—Ed. Press]; almost every week some strike is made. There is, of course, much excitement. We have one oil mine; it is a beautiful lode, four and a half feet thick, with a dip mostly vertical, and filled in with solid chrystalized petroleum. It yields, under dry distillation, 165 gallons of oil to the ton. It is not asphalte, nor bitumen; but, of course, has the same properties. It is granulous in structure; is insoluble in acids or alkalies. Boiling nitric acid has no effect upon it. It gives way to chloroform, which is the only solvent for it we know of at present. It is rich in perfume and produces olefiant gas. I will send you a report in a short time (illustrated) that will give you an outline of the district where it occurs."

Auction of Ladies.—It is well known that an auction of unmarried ladies used to take place annually in Babylon. In every district they assembled on a certain day of every year all the virgins of marriageable age. The most beautiful was first put up, and the man who bid the largest sum of money gained possession of her. The second in personal appearance followed, and the bidders gratified themselves with handsome wives according to the depth of their purses. But alas! it seems that there were in Babylon some ladies for whom no money was likely to be offered; yet these were also disposed of, so provident were the Babylonians. When all the beautiful virgins were sold, the crier ordered the most deformed to stand up, and after he had openly demanded who would marry her for a small sum, she was at length adjudged to the man who would be satisfied with the least; and in this way the money arising from the sale of the handsome served as a portion to those who were either of disagreeable looks, or that had any imperfection. This custom prevailed about five hundred years before Christ.

The Statue of Lincoln, by Mezzara, which is to be permanently placed in front of the Lincoln School House, will be inaugurated to-day next, the first anniversary of that patriot's assassination.

Pahranagat.—The *Reveille* says that Mr. C. H. Belknap, who has recently returned to Austin from Pahranagat, brings highly favorable reports from those mines.

The oil production of the Atlantic States is rapidly increasing, while the known oil fields are increasing in still greater ratio.

An Egyptian harp found in Thebes, had strings yet perfect enough to vibrate again, after a silence of 3000 years.

"Safety Cages."

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The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

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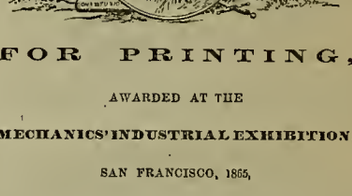

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A Fighting School Marm.—Some trouble and a law suit regarding the punishment of a scholar occurred last week in the District of Orange Center, in which right prevailed so triumphantly that it deserves especial notice. The teacher, Miss Emily Batchelder, of East Montpelier, with the volunteer assistance of one of the boys in School, punished a large and unruly scholar (who was endeavoring to make a fuss in School and defy the the teacher,) so severely that he begged for mercy, and his father prosecuted the teacher. The doctor called to examine the "abused" boy, stated that he evidently was pretty well punished, but he thought not quite what he had deserved. An attempt was made to procure a jury, but a man could not be found who had not "formed an opinion," which was "that he wan't licked half enough." Seeing what the inevitable result of a trial must be, the prosecution finally withdrew the suit, when a collection was taken up which paid all the expenses to which Miss Batchelder had been subjected, and presented her, in behalf of the ladies of the district, with a set of silver table spoons and butter knife, indicating that the district was hearty and true in the support of a teacher who had fearlessly done her duty.—*Montpelier (Vt.) Freeman.*

How to Have a Sharp Razor.—Take a strip of thick harness leather, the size you want for a strap, and fasten it at each end upon a piece of wood; then rub upon its surface a piece of tin (any tin dish will do) until it is smooth. Strop your razor upon this, and you will find it worth all the patent strops that were ever invented.—*Portland American.*

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Will examine, survey and report upon mines, and constructs and advise concerning investments in mining property, or the machinery management and expenditures of mines. 22q*

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410 Kearny Street.
Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done. 20v11-1m

Volume Twelfth.—The Mining and Scientific Press, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

By Mail.—The Mining and Scientific Press will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

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10v10

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CAUTION.

To whom it may concern:—The public are hereby notified that a patent was allowed, December 27th, 1864, and issued June 27th, 1865, to Professor Henry Wurtz, for the use of sodium and amalgams thereof with quicksilver, in the extraction of precious metals from their ores. All persons using said amalgams, or purchasing or selling sodium or said amalgams for use in the treatment of gold or silver ores, are hereby cautioned that they will be prosecuted to the full extent of the law.

The patents of Professor Wurtz have been assigned to the Wurtz Amalgamation Company of New York city. It is the intention of the said company soon to appoint agents for California and the other mining States and Territories. In the meantime, applications for licenses to use sodium and its amalgams, may be addressed to the company, at their office, No. 57 Broadway, New York.

C. Elton Buck, Secretary.
March 9th, 1866. 14v12-6t

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Dewey & Co.,
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Subscribers who do not receive the Mining and Scientific Press in due time, are requested to inform the publishers.

BREAD AND BUTTER.—Hall, in his *Journal of Health*, gives us the following bit of wisdom: "Bread and butter are the only articles of food of which we never tire from early childhood to old age. A pound of fine flour or Indian meal contains three times as much meat as one pound of butchers' roast beef, and if the whole product of the grain, bran and all, were made into bread, fifteen per cent. more nutriment would be added. Unfortunately the bran, the coarsest part, is thrown away; the very part which gives soundness to the teeth and strength to the brain. Five hundred pounds of flour gives the body thirty pounds of the bony element, while the same quantity of bran gives more than one hundred and twenty-five pounds. This bone is lime, the phosphate of lime, the indispensable element of health to the whole human body, from the want of the natural supply of which multitudes of persons go into a general decline. But swallowing phosphorus in the shape of powders or in syrups, to cure these declines, has little or no effect. The articles contained in these phosphates must pass through Nature's laboratory, in alembics specially prepared by Almighty power, in order to impart their peculiar virtues to the human frame; in plainer phrase, the shortest, safest, and most infallible method of giving strength to the body, bone and brain, thereby arresting disease, building up the constitution, is to eat and digest more bread made out of the whole grain, whether made of wheat corn, rye, or oats.

A CORRESPONDENT writes that a 'learned professor,' who was asked to give a lecture to an institution, went and delivered his eloquence at that institution, and only when it was over, found that his best language and longest words had been expended in vain, as he was in the presence of a deaf and dumb college.

A Business Compliment.

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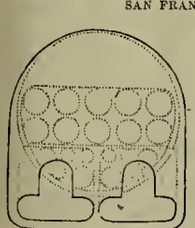

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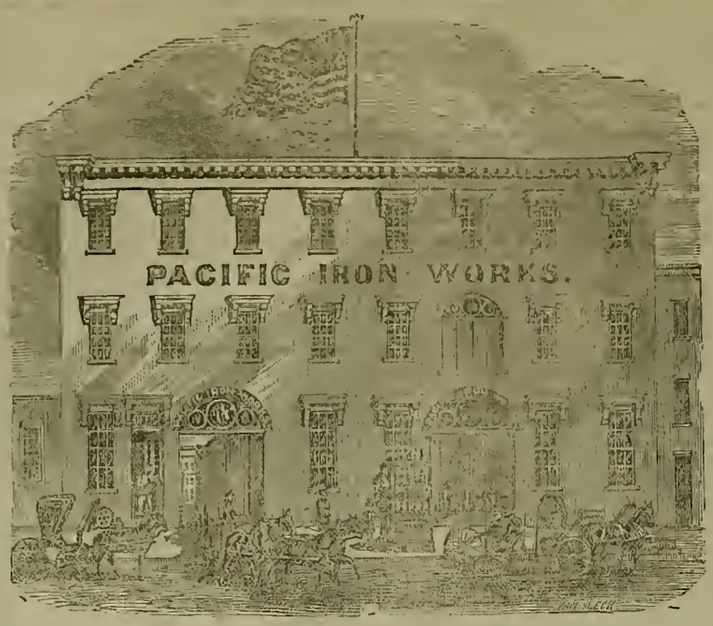

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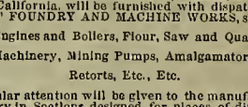

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6v11-1y **DEVOE, DINSMORE & CO.**

New Mining Advertisements.

Continued Mining Advertisements will be found on another page.

Harker Gold and Silver Mining Company,
Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
B Agyras	94	5	$ 2 50
G M Blake	66	10	5 00
F A Bee	128	5	2 50
A Bock	117	10	5 00
Mrs S R Cagwin	56	10	5 00
Geo Clifford	53	10	5 00
James Camp	124	10	5 00
J A Driukhouse	100	5	2 50
J A Driukhouse	146	76	38 00
C J Dryer	96	1	50
C J Dryer	139	4	2 00
W G Deane	121	5	2 50
L Diaklespiel	141	10	5 00
D B Francis	60	10	5 00
A B Gayle	105	35	17 50
A B Gayle	107	3	1 50
A B Gayle	129	20	10 00
W B C Harker	27	20	10 00
W B C Harker	28	20	10 00
W B C Harker	27	10	5 00
M Harker	92	5	2 50
S Haas	95	15	7 50
S Haas	126	30	15 00
S Haas	127	15	7 50
S Haas	134	5	2 50
A W Hawkelt	110	5	2 50
John C Hall	120	10	5 00
N B Jacobs	53	5	2 50
A D Meacham	91	5	2 50
F W Myrick	123	10	5 00
G A Pitney	36	20	10 00
G A Pitney	39	20	10 00
G A Pitney	40	20	10 00
G A Pitney	41	20	10 00
G A Pitney	42	20	10 00
G A Pitney	43	20	10 00
G A Pitney	44	20	10 00
G A Pitney	45	20	10 00
G A Pitney	47	10	5 00
G A Pitney	48	10	5 00
G A Pitney	122	15	7 50
Johanna Rosenbaum	59	10	5 00
W T Reynolds	65	20	10 00
W T Reynolds	86	10	5 00
W T Reynolds	87	10	5 00
E F Stone	62	10	5 00
C M Thureman	119	9	4 50
J W Work	61	10	5 00
L Widhams	64	5	2 50
Geo Work	65	10	5 00
W G Wendell	67	5	2 50
Mark Wiggins	116	20	10 00
H Woodleaf	118	10	5 00

And in accordance with law and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 1st day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary,
Office, 402 Front street, San Francisco, Cal. ap14

Jefferson Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
O J Bacon	30	7¾	$3 88
O J Bacon	136	10	5 00
O J Bacon	137	10	5 00
O J Bacon	139	5	2 50
Bridgeport G and S M Co	170	20	10 00
J S Currie	1	24	12 00
S O Clifford	33	2	1 00
S O Clifford	106	10	5 00
S O Clifford	109	10	5 00
S O Clifford	151	10	5 00
Jonas G Clark	156	23¾	11 62
M J Farrell	132	10	5 00
T L Frew	153	15	7 50
Jos Gilbert	68	20	10 00
Jos Gilbert	70	10	5 00
Jos Gilbert	71	10	5 00
Jos Gilbert	72	10	5 00
Jos Gilbert	73	10	5 00
Jos Gilbert	74	10	5 00
Jos Gilbert	75	10	5 00
Jos Gilbert	76	10	5 00
Jos Gilbert	77	5	2 50
Jos Gilbert	78	5	2 50
A B Gayle	173	5	2 50
John Hewston, Jr	61	20	10 00
A Hartman	144	10	5 00
A Hartman	165	15	7 50
S Jackson	14	20	10 00
S Jackson	15	20	10 00
S Jackson	16	8¼	4 12
T G Johnson	149	8	4 00
S T King	106	5	2 50
S T King	167	5	2 50
S T King	168	10	5 00
B Littlefield	121	10	5 00
James McGahey	20	5	2 50
James McGahey	21	5	2 50
D McDonnell	34	9¼	4 63
Eli McIntyre	122	11	5 50
Eli McIntyre	123	10	5 00
Eli McIntyre	124	10	5 00
Eli McIntyre	125	10	5 00
Chas McElvy	159	6	3 00
Chas McElvy	161	10	5 00
Chas McElvy	162	10	5 00
Chas McElvy	163	6	3 00
H Oyer	49	20	10 00
H Oyer	53	10	5 00
H Oyer	54	10	5 00
H Oyer	55	5	2 50
H Oyer	58	6	3 00
S W Potter	128	5	2 50
George Priest	145	10	5 00
H H Pearson	154	15	7 50
George Riley	150	7	3 50
M Seiber	148	45	23 00
Sebastopol G and S M Co	155	9¾	4 63
N A Watson	142	3	1 50
Mark Wiggins	117	20	10 00
Mark Wiggins	118	10	5 00
Mark Wiggins	119	10	5 00
Mark Wiggins	120	11	5 50
J J Wooster	127	5	2 50
J H Woods	157	15	7 50
George Work	169	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the office of the Company, on the 30th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco, Cal. ap14

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866 the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
B Austin	358	50	$ 5 00
N Tack	271	100	10 00
N Tack	272	100	10 00
N Tack	273	50	5 00
N Tack	274	50	5 00
D F Richards	276	600	60 00
D F Richards	239	50	5 00
D F Richards	240	50	5 00
D F Richards	241	100	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Maurice Dore & Co., No. 327 Montgomery Street, San Francisco, Cal., on the 26th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

ap14 C. HEYWOOD, Secretary.

Madison Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
John Bicknell	131	15	$ 7 50
Peter Brust	121	3	1 50
Peter Brust	132	7	3 50
S O Clifford	117	10	5 00
S O Clifford	55	5	2 50
H F Cutter	65	10	5 00
B W Crowell	125	5	2 50
D F Coll	127	6	3 00
D F Coll	128	7	3 50
Jonas G Clark	129	10	5 00
Jonas G Clark	134	10	5 00
John Deardon	124	10	5 00
A N Davis	122	5	2 50
A B Gayle	137	5	2 50
Chas G Going	100	20	10 00
Chas G Goiug	101	6¼	3 25
Chas G Going	102	5	2 50
Chas G Goiug	103	5	2 50
Chas G Going	104	10	5 00
Chas G Going	105	10	5 00
John Garber	108	10	5 00
John Garber	109	10	5 00
John Garber	110	10	5 00
R G Huffaker	77	10	5 00
E V Hatfield	78	10	5 00
S C Jewett	76	10	5 00
T G Johnson	112	6¼	3 25
S Lathrop	133	10	5 00
P McAlaster	24	10	5 00
P McAlaster	25	10	5 00
C F Meyers	111	7	3 50
C F Meyers	135	2½	1 25
Arthur Moor	113	5	2 50
Chas McElvy	123	10	5 00
E Northrup	31	10	5 00
E Northrup	30	10	5 00
C M Pryor	39	5	2 50
C M Pryor	41	10	5 00
C M Pryor	42	10	5 00
C M Pryor	44	10	5 00
C M Pryor	45	10	5 00
C M Pryor	46	10	5 00
B L Plummer	79	10	5 00
B L Plummer	80	10	5 00
B L Plummer	81	10	5 00
B L Plummer	82	10	5 00
B L Plummer	68	10	5 00
B L Plummer	136	10	5 00
A G Stiles	73	5	2 50
John Spencer	84	20	10 00
John Spencer	85	30	15 00
R Snyder	95	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the company, on the 30th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. ap14

Monitor Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent, upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
H W Bradley	11	13	$9 75
Charles Bertody	39	10	7 50
J F Bartholomew	102	16	12 00
Wm H Chevers	18	7	5 25
A P Cox	74	10	7 50
A P Cox	75	4	3 00
Jas Camp	63	10	7 50
L Dinklespiel	25	5	3 75
S H Greene	83	9	6 75
W B C Harker	62	5	3 75
R W Heath	10	11	8 25
Jno W Harker	59	4	3 00
N B Jacobs	65	25	18 75
T E Lindenberger	1	3½	2 62
T E Lindenberger	79	6½	4 87
J M Simwell	71	30	22 50
G V Sawyer	78	5	3 75
Anna K Turner	26	6	4 50
John Wightman	14	7	5 25
J J Williams	84	3½	2 62

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 30th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. ap14

Old Colony Gold and Silver Mining Company, Austin, Reese River, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 8th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Wm K Flint	32	15	60 00

And in accordance with law, and an order of the Board of Trustees, made on the 8th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at the office of the company, on the 28th day of April, 1866, at the hour of 1 o'clock, P. M., of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

H. O. HOWARD, Secretary.
Office, No. 523 Montgomery street, San Francisco. ap14

Oregon Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Ayres, W O	86	20	$ 5 00
Allen, H H	111	2	50
Allen, H H	203	5	1 25
Bee, A W	136	36	9 00
Buel, D E	207	2	50
Blake, G M	58	4	1 00
Blake, G M	45	6	2 00
Blake, G M	192	1	25
Bowman, Jno S	91	4	1 00
Bower, George	151	20	5 00
Bachman, N S	167	10	2 50
Cohen, Israel	172	5	1 25
Chapin, S A	185	10	2 50
Cutter, H F	61	4	1 00
Cutter, H F	186	18 4 21	4 55
Cohn, Samuel	189	14	3 50
Dettlebach, S M	105	10	2 50
Dinkelspiel, L	132	10	2 50
Davidson, Jacob	145	10	2 50
Earl, E M	162	30	7 50
Francis, D B	2	10	2 50
Francis, D B	9	10	2 50
Frank, J	117	20	5 00
Frank, J	193	8	2 00
Fish, Mrs Emma T	217	2	50
Fassett, N C	71	2	50
Greene, Samuel H	3	6	2 00
Greene, Samuel H	10	6	2 00
Greene, Samuel H	67	2	50
Greenbaum, A	155	10	2 50
Gentry, Abner	164	50	12 50
Grinbaum, M S	173	50	12 50
Grinbaum, M S	174	50	12 50
Heath, R W	4	12	3 00
Heath, R W	11	12	3 00
Heath, R W	69	2	50
Hanchett, H H	23	10	2 50
Haas, S	195	20	5 00
Harrington, W C	208	2	50
Hans, C S	190	15	3 75
Heineberg, A	194	6	2 00
Harker, J W	200	3	75
Hutchins, W P	201	6¼	1 56
Joh, Jerry	125	10	2 50
Newmark, M J	113	5	1 25
Newmark, M J	163	30	7 50
Perley, D W	20	20	5 00
Perley, D W	21	10	2 50
Perry, R	55	1	25 00
Rosenbaum, F H	7	5	1 25
Rice, H F	199	30	7 50
Strauss, M	93	10	2 50
Smith, A N	23	50	13 50
Simonsfield, Julius	96	10	2 50
Strauss, Emanuel	76	10	2 50
Salomon, Sylvan	103	2	50
Stateler, J W	133	10	2 50
Stateler, J W	134	10	2 50
Stateler, J W	135	10	2 50
Stateler, J W	136	10	2 50
Stateler, J W	137	10	2 50
Sharp, Geo F	157	4	1 00
Sinshcimer, S	191	10	2 50
Titus, J W	165	10	2 50
Wightman, Jun	60	4	1 00
Work, J W	65	2	50
Weill, Alex	74	5	1 25
Weill, Alex	106	5	1 25
Weill, Alex	146	10	2 50
Wheeler, M A	119	30	7 50
Wheeler, M A	120	20	5 00
Woodleaf, H	116	20	5 00
Woodleaf, H	140	10¾	2 67
Watermae, E R	156	2	50
Litchfield, W D	46	1	25
Litchfield, W D	204	1	25
Lindenberger, T E	49	1	25
Levy, Isaac	167	20	5 00
Levy, Isaac	168	20	5 00
Levy, Isaac	169	20	5 00
Levy, Isaac	170	20	5 00
Levy, Isaac	171	10	2 50
Molton S & M Co	13	10	2 50
McManus, M	77	6¼	1 57
Manheimer, J	175	10	2 50

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the company, on the 1st day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco, Cal. ap14

Constitution and By-Laws
— OF —
Mining and Prospecting Companies

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Pride of the East Gold, and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described Stock, on account of assessment levied on the 13th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
J M Ball	58	12	$6 00
J M Ball	59	10	5 00
J M Ball	60	10	5 00
J M Ball	61	10	5 00
J M Ball	62	10	5 00
J M Ball	63	10	5 00
J M Ball	65	10	5 00
J M Ball	57	10	5 00
J M Ball	68	10	5 00
J M Ball	69	10	5 00
J M Ball	70	10	5 00
J M Ball	72	5	2 50
J M Ball	73	5	2 50
J M Ball	74	5	2 50
J M Ball	75	5	2 50
S O Clifford	61	5	2 50
S O Clifford	82	5	2 50
S O Clifford	83	10	5 00
S O Clifford	84	10	5 00
S O Clifford	65	10	5 00
S O Clifford	66	10	5 00
Jefferson Cocke	150	10	5 00
James Camp	155	10	5 00
E M Darneal	39	12	5 00
E M Darneal	40	10	5 00
E M Darneal	41	10	5 00
E M Darneal	42	10	5 00
E M Darneal	43	10	5 00
E M Darneal	44	10	5 00
E M Darneal	45	10	5 00
E M Darneal	46	10	5 00
E M Darneal	47	10	5 00
E M Darneal	48	10	5 00
E M Darneal	49	10	5 00
E M Darneal	50	10	5 00
E M Darneal	51	10	5 00
E M Darneal	52	10	5 00
E M Darneal	53	5	2 50
E M Darneal	54	5	2 50
E M Darneal	55	5	2 50
E M Darneal	56	5	2 50
E M Darneal	57	5	2 50
Miss H DePeu	146	5	2 50
R Ferguson	158	5	2 50
J W Harker	88	5	2 50
J W Harker	90	5	2 50
J W Harker	142	3	1 50
Jno Hunt, Jr	144	1	50
D L Hayward	156	5	2 50
Mrs Jas Heath	160	5	2 50
Joshua Lewis	151	10	5 00
H H Linville	157	5	2 50
Wm M Matthews	1	15	7 50
Wm M Matthews	2	12	6 00
Wm M Matthews	3	12	6 00
Wm M Matthews	6	13	6 50
Wm M Matthews	7	10	5 00
Wm M Matthews	9	10	5 00
Wm M Matthews	10	10	5 00
Wm M Matthews	13	10	5 00
Wm M Matthews	14	10	5 00
Wm M Matthews	15	5	2 50
Wm M Matthews	16	5	2 50
Wm M Matthews	17	5	2 50
Wm M Matthews	18	5	2 50
Wm M Matthews	19	5	2 50
Geo H Matthews	152	5	2 50
W C Matthews	153	5	2 50
A Peterson	159	5	2 50
B L Plummer	101	4	2 00
B L Plummer	102	3	1 50
B L Plummer	103	10	5 00
B L Plummer	104	10	5 00
B L Plummer	105	10	5 00
B L Plummer	106	10	5 00
B L Plummer	107	10	5 00
B L Plummer	108	10	5 00
B L Plummer	109	10	5 00
B L Plummer	110	10	5 00
B L Plummer	111	10	5 00
B L Plummer	112	10	5 00
B L Plummer	113	10	5 00
B L Plummer	114	10	5 00
B L Plummer	115	10	5 00
B L Plummer	116	10	5 00
B L Plummer	117	5	2 50
B L Plummer	116	5	2 50
B L Plummer	120	5	2 50
Miss C L Rhodes	145	5	2 50
Alfred Rising	143	1	50
Henry R Reed	154	5	2 50
Samuel Smith	20	12	5 00
Samuel Smith	21	10	5 00
Samuel Smith	22	10	5 00
Samuel Smith	23	10	5 00
Samuel Smith	24	10	5 00
Samuel Smith	26	10	5 00
Samuel Smith	28	10	5 00
Samuel Smith	27	10	5 00
Samuel Smith	28	10	5 00
Samuel Smith	29	10	5 00
Samuel Smith	30	10	5 00
Samuel Smith	31	10	5 00
Samuel Smith	32	10	5 00
Samuel Smith	33	10	5 00
Samuel Smith	34	5	2 50
Samuel Smith	35	5	2 50
Samuel Smith	36	5	2 50
Samuel Smith	37	5	2 50
Samuel Smith	38	5	2 50
Jas Steel	147	8	4 00
Wm R Smith	149	10	5 00
J B Trask	76	10	5 00
Samuel Winans	4	10	5 00
Samuel Winans	121	5	2 50
Samuel Winans	122	5	2 50
Samuel Winans	123	5	2 50
Samuel Winans	124	5	2 50
Samuel Winans	125	5	2 50
Samuel Winans	126	5	2 50
Samuel Winans	127	10	5 00
Samuel Winans	129	10	6 00
Samuel Winans	130	10	5 00
Samuel Winans	131	10	5 00
Samuel Winans	132	10	5 00
Samuel Winans	133	7	3 50
Samuel Winans	134	10	5 00
Samuel Winans	135	10	5 00
Samuel Winans	136	10	5 00
Samuel Winans	137	10	5 00
Samuel Winans	138	5	2 50
Samuel Winans	139	5	2 50
Samuel Winans	140	5	2 50
Samuel Winans	141	5	2 50
Chas W White	161	10	5 00

And in accordance with law and an order of the Board of Trustees, made on the 13th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the Company, on the 27th day of April, 1860, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. ap14

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

Santa Cruz Petroleum Oil Works Company—Location of Works: Santa Cruz County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment No. 15, levied on the 10th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bradley, Patrick	505	10	$ 5 00
Bailey, Patrick	506	10	5 00
Curtis, Lucien	584	6	3 00
Curtis, Lucien	594	25	12 50
Gray, R B	193	50	25 00
Gray, R B	323	7	3 50
Gallagher, F D	740	10	5 00
Lindan, A	744	45	22 50
Langdom, Samnal	173	20	10 00
Langdom, Samuel	174	20	10 00
Langdom, Samuel	175	20	10 00
Langdom, Samuel	176	20	10 00
Langdom, Samuel	221	50	25 00
Langdom, Samuel	342	11	5 50
McComb, James	739	25	12 50
Moore, J H	325	300	150 00
Neville, Mrs A E	693	5	2 50
Ransom, Mrs A M	313	4	2 00
Ransom, Mrs A M	692	19	9 50
Ransom, Lee J	694	5	2 50
Reichert, I A	500	10	5 00
Sheldon, J P	732	30	15 00
Sheldon, J P	733	200	100 00
Tillinghast, W H	1	30	15 00
Tillinghast, W H	351	4	2 00
Tillinghast, W H	490	50	25 00
Tillinghast, W H	714	16	8 00

And in accordance with law and an order of the Board of Trustees, made on the 10th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Cobb & Sluton, No. 406 Montgomery street, San Francisco, Cal., on Saturday, the 28th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco. ap14

Silver Cloud Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 13th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names	No. Certificates.	No. Shares.	Amount.
C T Gayle	1	50	$25 00
C T Gayle	2	10	5 00
C T Gayle	3	10	5 00
C T Gayle	4	10	5 00
C T Gayle	5	10	5 00
C T Gayle	6	10	5 00
C T Gayle	7	10	5 00
C T Gayle	8	10	5 00
C T Gayle	9	10	5 00
C T Gayle	10	10	5 00
C T Gayle	11	5	2 50
C T Gayle	12	5	2 50
A B Gayle	13	10	5 00
A B Gayle	16	5	2 50
A B Gayle	69	5	2 50
A H Hawley	76	10	5 00
A H Hawley	77	10	5 00
A H Hawley	76	5	2 50
E P Jones	10	25	12 50
E P Jones	20	25	12 50
E P Jones	21	25	12 50
E P Jones	22	10	5 00
E P Jones	23	10	5 00
E P Jones	24	10	5 00
E P Jones	25	10	5 00
E P Jones	26	10	5 00
E P Jones	27	10	5 00
E P Jones	28	10	5 00
E P Jones	29	10	5 00
Geo W Kinney	62	30	15 00
Geo W Kinney	63	10	5 00
Geo W Kinney	64	10	5 00
Geo W Kinney	65	10	5 00
Geo W Kinney	66	10	5 00
Geo W Kinney	69	5	2 50
Henry Ollis	73	25	12 50
Henry Ollis	74	25	12 50
Henry Ollis	75	30	12 50
J H Patty	30	25	12 50
J H Peoples	32	25	12 50
J H Peoples	33	25	12 50
J H Peoples	34	25	12 50
J H Peoples	35	25	12 50
J H Peoples	36	10	5 00
J H Peoples	37	10	5 00
J H Peoples	38	10	5 00
J H Peoples	39	10	5 00
J H Peoples	40	10	5 00
J H Peoples	41	10	5 00
J H Peoples	42	10	5 00
J H Peoples	43	10	5 00
Geo. ge Peoples	45	25	12 50
George Peoples	46	25	12 50
George Peoples	47	25	12 50
George Peoples	48	25	12 50
George Peoples	49	10	5 00
George Peoples	50	10	5 00
George Peoples	51	10	5 00
George Peoples	52	10	5 00
George Peoples	53	10	5 00
George Peoples	54	10	5 00
George Peoples	55	10	5 00
George Peoples	56	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 13th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 27th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of the sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. Cal. ap14

PHILADELPHIA AGENCY,

Parties wishing to subscribe or advertise in the MINING AND SCIENTIFIC PRESS can be accommodated by calling upon our Agent, Mr. THANEA HAMILTON, at the Assembly Building, 106 South Tenth street, Philadelphia, Pa., where sample copies of our publications can always be found.

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Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Arroyo Seco Copper Mining Company, No. 1.—Location: Amador County, California.

NOTICE.—The annual meeting of stockholders of the above named company, for the election of Trustees, to serve for the ensuing year, will be held on THURSDAY, the 19th day of April, 1866, at one o'clock P. M., at their office, 415 Montgomery street.

R. WEGENER, Secretary.

San Francisco, April 3d, 1866. ap7

Batoplias Mining Company, Batoplias District State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of April, 1866, an assessment (No. 2) of twenty-five (25) cents per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 611 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 10th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.

Office, 611 Montgomery Street, San Francisco, Cal. ap7

Cosala Silver Mining Company, District of Cosala, Sinaloa, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of the Cosala Silver Mining company, held on Saturday, the 24th day of March, 1866, at the office of the company, an assessment of one dollar ($1) per share was levied on each and every assessable share of the capital stock of said company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the company, No. 510 Battery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Thursday, the 26th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 12th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

CHAS. BAUM, Secretary.

No. 510 Battery street, opposite the Custom House, San Francisco. mar31

Comet Petroleum Company, Mattole District, Humboldt County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the twenty-second (22d) day of January, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
S M Balch	1	25	$7 50
S M Balch	23	50	15 00
Warren J Chapman	2	12	3 60
R I. Holman	3	13	3 90
George J Hughston	4	25	7 50
George J Hughston	5	25	7 50
George J Hughston	24	50	15 00
James Gilbert	9	10	3 00
James Gilbert	18	10	3 00
W H Cummings	11	25	7 50
W H Cummings	12	25	7 50
W H Cummings	22	50	15 00
James T Watson	13	25	7 50
James T Watson	21	75	22 50
Jos W Low	15	50	15 00
C E Webber	26	50	15 00
J T Westheimer	27	40	12 00
Geo W Meaney & Co	28	100	30 00
M B French	34	50	15 00
Wm Green	35	50	15 00
R H Hall	37	25	7 50
J T Dean	38	100	30 00

And in accordance with law, and an order of the Board of Trustees, made on the 22d day of January, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., on the 14th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

L. CROSBY, Secretary.

Office, 36 Exchange Building, northwest corner Montgomery and Washington streets, San Francisco. mar31

Eagle Quartz Mining Company—Location of Mine and Mill: Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
J P Bush	10	100	$100 00
J S Calef	76	100	100 00
J S Calef	77	50	50 00
J S Calef	78	50	50 00
J S Calef	136	55	55 00
J S Calef	180	121	121 00
Mrs H S Calef	181	40	40 00
J A Carrie	half on 163	155	155 00
Hudson, H S	61	10	10 00
Francis Kirk	182	5	5 00
Isaac Rowell	6	25	25 00
Eli Schell	173	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of John Middleton & Son, 404 Montgomery street, San Francisco, on the 25th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Building, San Francisco, Cal.

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Good Hope Gold and Silver Mining Company, Alpine District, Alpine County, California.

On and after April 23d, 1866, the Office and principal place of business of the above Company, will be located in the town of Markleeville, Alpine County. By order of the Board of Trustees.

PRESTON MORRIS, Secretary.

San Francisco, March 23, 1866. mar24 3w

Hansom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of March, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States Gold and Silver Coin, to the Secretary, S. S. SWEET, No. 611 Market street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 5th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.

Office, No. 611 Market street, San Francisco, Cal. ap7

Julia Gold and Silver Mining Company, Virginia, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, the several amounts hereafter set opposite the names of the respective shareholders on account of assessment of one dollar ($1) per share levied March 1st, 1866, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Sewall, G T	114	20	$20 00
Mitchell, J A	5	25	25 00
Mitchell, J A	6	25	25 00
Mitchell, J A	7	25	25 00
Mitchell, J A	8	25	25 00
Knox, A C	17	10	10 00
Frisch, J G	71	50	50 00
Frisch, J G	72	14	14 00
Taylor, Thos	73	50	50 00
Taylor, Thos	74	13	13 00
Reichel, Wm	75	50	50 00
Reichel, Wm	76	13	13 00
Pinchard, L	44	20	20 00
Pinchard, L	45	20	20 00
Pinchard, L	46	15	15 00
Pinchard, L	47	15	15 00
Pinchard, L	48	15	15 00
Pinchard, L	49	10	10 00
Pinchard, L	50	10	10 00
Pinchard, L	51	10	10 00
Pinchard, L	52	10	10 00
Gallhard, C	105	10	10 00
Lantheaume, L	106	10	10 00
Lagoarde, B	109	20	20 00
Thomas,	111	10	10 00
Montgomery, E L	113	5	5 00
Ford, J N	116	25	25 00
Levy, Louis	117	10	10 00
Haas, S	116	10	10 00
McCormick, Wm	122	10	10 00
McCormick, Wm	123	10	10 00
Long, C	146	10	10 00
Long, C	157	10	10 00
Ansbus, Victor	163	10	10 00
Van Lokeren, H	179	20	20 00
Romand, J F	163	12	12 00
Lemarie, F	164	14	14 00
Sweetzer, A J	166	12	12 00
Felix,	23	25	25 00
Gager, Jas H	4	25	25 00
Carmichael, J	10	25	25 00
Carmichael, J	11	25	25 00
Carmichael, J	12	25	25 00
Carmichael, J	13	25	25 00
Yates, L F	15	10	10 00
Leduc, M	154	10	10 00
Jolibois, J	36	20	20 00
Vivier, J N	38	20	20 00
Gillet, N J	54	10	10 00
Gillet, N J	58	5	5 00
Gillet, N J	59	5	5 00
Gillet, N J	166	15	15 00
Gillet, N J	167	10	10 00
Colman, Mrs	83	10	10 00
Lamolle, J	99	13	13 00
Lamolle, B	100	25	25 00
Lamolle, B	101	25	25 00
Lamollo, B	102	15	15 00
Pratolongo, L	66	10	10 00
Pratolongo, L	103	30	30 00
Page, F	115	10	10 00
Colman, N J	119	15	15 00
Colman, N J	120	10	10 00
Colman, N J	121	10	10 00
Plank, F	149	10	10 00
Plank, F	150	10	10 00
Plank, F	151	10	10 00
Pezet, J W	155	10	10 00
Colman, A F	156	10	10 00
Ricard, Joseph	165	14	14 00

And in accordance with law, and an order of the Board of Trustees, made on the 1st day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, on the 16th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco. mar31

Kentucky Copper Mining Company, Mine Felix District, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 2d day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable on the 3d day of April, 1866, in United States gold and silver coin, to the Secretary, at his office, 644 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 8th day of May, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 30th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. A. BAUER, Secretary.

Office, 644 Washington street, San Francisco, Cal. ap7

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Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 31st day of March, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 305 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 5th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. S. LUTY, Secretary.

Office, 305 Montgomery street, San Francisco, Cal. ap6

Mosquito Quartz Mining Company.—Location of Works: Calaveras County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 31 day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
A Borel	52	5	$25 00
A Borel	220	39	195 00
D Davidson	117	5	25 00
T Goodchaux	167	12	60 00
Robert Irwin	134	1	5 00
B Levy	75	2	10 00
R R Maurice } J Percy }	201	1	5 00
F Rollet	192	2	10 00
H Schmitt	176	5	25 00
H Schmitt	194½	5	25 00
P Torrie	111	4	20 00
P Torrie	112	4	20 00
P Torrie	113	2	10 00
G Touchard	228	10	80 00
F J Wilson	222	4	20 00
S M Wellhoff	100	2	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 3d day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 23d day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

E. H. WATERS, Secretary.

Office, 526 Clay street. ap7

North Star Gold and Silver Mining Company, Reese River Mining District, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 31st day of March, 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately to the Secretary, GOTTLIEB BEER, at his office, No. 226 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 30th day of April, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GOTTLIEB BEER, Secretary.

Office, No. 226 Front street, San Francisco, Cal. ap7 4w

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Ambrose Hinds	33	25	$12 50
Ambrose Hinds	34	10	5 00
Ambrose Hinds	35	10	5 00
Ambrose Hinds	30	5	2 50
Jacob Wissing	140	5	2 50
M C Keyes	142	7	3 50
M C Keyes	167	3	1 50
Sidney Lemon	150	15	7 50
S F Wallace	174	10	5 00
L T Smith	183	5	2 50
J G Stover	220	25	12 50
J G Stover	221	25	12 50

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the salesroom of Maurice Dore & Co., 327 Montgomery street, San Francisco, on the 25th day of April, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

GEO. H. PECK, Secretary.

Office, Corner Broadway and Sansome streets, San Francisco. ap7

Yuba Gold and Silver Mining Company, Brown's Valley, Yuba County, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 24th day of February, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Barbe, Jos	414 to 416 10 ea	30	$60 00
Barbe, Jos	417	5	10 00
Berges, P	34 and 35 5 ea	10	20 00
Brown, J M	143 and 374 5 ea	10	20 00
Brown, J M	385	3	6 00
Brown, J M	366	7	14 00
Cohen, Wm	172	12½	25 00
Cohn, Simon & Bro	226	10	20 00
Crachet, Felix	346 to 350 10 ea	30	60 00
Crachet, Felix	351	5	10 00
Fischer, Wm	375	10	20 00
Fischer, Wm	376	20	40 00
Fischer, Wm	377	5	10 00
Sanfrignon, Jules	410	3	6 00
Sole, Gaspard	300	17	34 00

And in accordance with law, and an order of the Board of Trustees, made on the 24th day of February, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on Saturday, the 14th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

P. R. RINGSTROM, Secretary.

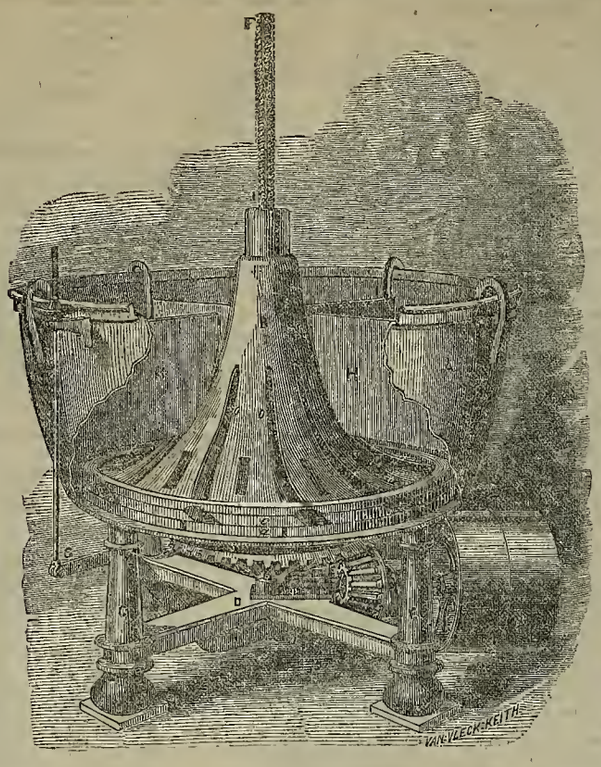
Office, 210 Pine street, up-stairs, San Francisco. m31

JAVA COFFEE AND PEPPER.—In extent Java is about 700 miles in length, and it varies from 80 to 140 miles in width. Its area is less than 20,000 square miles. The face of the country is more or less broken by mountains, but the soil generally is rich and productive. The products are rice, sugar, coffee, pepper, spices, and a profusion of the finest tropical fruit. Coffee is cultivated to as great perfection as almost in any other part of the world. It grows upon large bushes, and the grains of coffee are formed two in a berry about the size and shape of our common plum. The skin of the berry is about as thick as that of the plum, and the color, when ripe, is a pale scarlet.

The bush is very productive. Every branch is loaded with the berries, which grow two in a place on the opposite side of each other, and about an inch and a half apart. When ripe, the skin bursts open and the grains of coffee fall out upon the ground; but a more general way is to spread something under the bush and shake the coffee down. After the outer skin is taken off there remains a kind of husk over each kernel, which is broken off (after being well dried in the sun) by heavy rollers. The coffee after this needs winnowing in order to be freed from the broken particles of the bush. It has been said by some writers that one bush with another will not yield more than a pound of coffee.

Black pepper is also raised to some extent on the Island of Java; but Sumatra, which lies just across the straits, is by far the most celebrated for this commodity. Her pepper is, perhaps, the finest and most abundant of any one country in the world. Black pepper grows on a vine very much like our grape vine. The pepper grows and looks when grown very much like our red currants. There is this difference, however, the currant has each its own distinct stem, but the pepper has not; every grain grows hard on to one common stem, just as each grain of Indian corn does on the cob. The color of the pepper when first ripe is almost a bright red, and changes to the dead black by being exposed to the heat of the sun.

The white pepper is nothing more than the common black with the outer skin taken off. It is first soaked until the skin bursts open, which is then rubbed off and the grain dried. The white is not considered so pungent as the black, though it is nicer and more expensive, as more labor is necessary in order to prepare it.



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In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

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Already granted; will act as an Attorney in presenting Applications at the Patent Office, and in managing them to a final issue; will draw up Assignments; will examine into the condition of Rejected Applications when desired to do so, and undertake the prosecution of such as may be considered patentable, and do whatever else is usually done by Patent Solicitors.

Address, P. O. Box 257, Washington, D.C. 7v12-3m

THE PULSE.—The action of the pulse will, no doubt, be of much interest to our readers. It probably is not known to many that the pulse of a female exceeds in frequency that of a male from ten to fourteen beats per minute.

Many circumstances influence its action, such as muscular exertion, mental excitement, the state of the digestive organs, and the position of the body, whether lying, sitting, or standing. Muscular action and mental excitement, as also the process of digestion, naturally increase it, it being much quicker during the process of digestion than when digestion has taken place.

In healthy males, from twenty-five to thirty years of age, the average of the pulse per minute, in a standing position, is from seventy-nine to eighty-one; sitting, from seventy-nine to ninety-one, and lying down, from sixty-six to sixty-seven—making a difference of from nine to ten beats between standing and sitting, from four to five between sitting and lying, and from thirteen to fourteen beats between standing and lying. In healthy females, of the same age, it will be found from eighty-two to ninety-one, standing; eighty-one to eighty two sitting, and eighty to eighty-one lying. The variation in the different positions is produced by the muscular action induced by the change of position.

At the different periods of the day the pulse varies, as, for instance, in a healthy person it is most frequent in the morning, and gradually decreases toward evening. After excitement, the diminution is greater and more regular in the evening than in the morning. Food has the same effect on it at these periods, for, in many instances, the same food that will increase its amount and duration in the morning, will, in the evening, have no effect whatever. During the hours of sleep there is a greater diminution.

The following table will show its variations at different periods of life, being greater in childhood than in old age, and gradually diminishing as we grow older:

	Beats per minute.
Newly born infant	130 to 140
During the first year	115 to 130
During the second year	100 to 115
During the third year	90 to 100
At the seventh year	85 to 90
Age of puberty	80 to 85
Manhood	70 to 82
Old age	50 to 65

To Printers.

We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job-Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the MINING AND SCIENTIFIC PRESS. 19v11tf

BACK VOLUMES.

Back files of the MINING AND SCIENTIFIC PRESS, from January 1st, 1861, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Machinery.

EXCELSIOR DOUBLE ACTING
Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater lifting power than other pumps of like size. They are adapted to work by hand, wind-mill, horse, or steam-power.

No. 1—Cylinder 2½ in., stroke 6 in.
No. 2—Cylinder 3 in., stroke 7 in.
No. 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No. 5—Cylinder 6 in., stroke 18 in.

The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,
12v12 3m 120 Front street,

Hepburn & Peterson's
AMALGAMATOR.

THE SUBSCRIBERS WOULD CALL THE ATTENTION of the Mining Public to their Reducer and Amalgamator, and also to their Separator for reducing and separating the mineral from

Gold and Silver Ores,

Manufactured and exhibited at the Vulcan Iron Works, Nos 137 and 139 First street, San Francisco.

These machines secure to the Miner a more Expeditious and Perfect Reduction and Amalgamation, a less liability to accident and delay, and a greater amount of useful effect in proportion to the power employed to keep them in operation than any other machine now in use for producing similar results. This fact is attested to by their general adoption and preference at all the principal Reduction Works in Nevada; among which may be mentioned the Gould & Curry Mill, the Silver State Reduction Works, Zephyr Flat Mill, Pioneer Mill, Eastern Slope Mill, Phœnix Mill, etc.

☞ This Amalgamator may be seen in operation at the European Metallurgical Works, Bryant St. bet. 3d and 4th. [Illustrated in the Mining and Scientific Press, April 9th, 1864.]

HEPBURN & PETERSON.
nov8 3m*

HUNTER'S
PREMIUM
CONCENTRATOR, AMALGAMATOR
AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; not one of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest irregularity of speed the best of results were given.

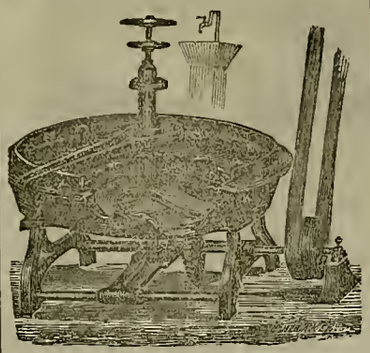
5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,
Novelty Iron Works, Fremont st., San Francisco,
15v11-3m Or to E. T. STEEN, Agent.

BAUX & GUIOD'S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1861, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to rework their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

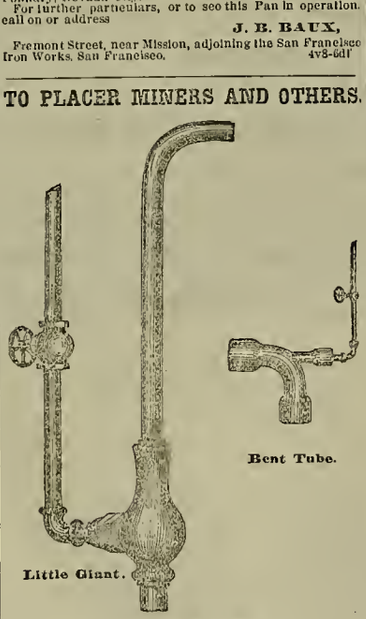
We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jefferson Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crail's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

TO PLACER MINERS AND OTHERS.



Bent Tube.

Little Giant.

BREARS'
Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 320 Pine street.

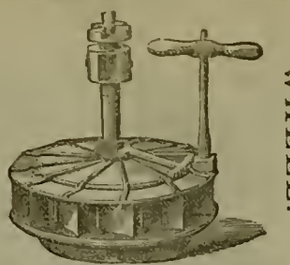
Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 216 First street, San Francisco.

LIST OF PRICES:

LITTLE GIANT.		BENT TUBE.	
Brass	$65	Iron, 4 in dl	$100
Iron	50	" 3 in. dl	75
		" 2 in. dl	50
		" 1½ in. dl	35
		Brass, 1 in. dl	25

13-v12

LEFFEL'S
American Double Turbine



WATER WHEEL.

THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction wherever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall. Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

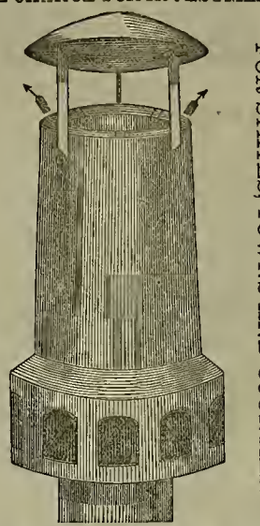
KNAPP & GRANT,
—ALSO—
San Francisco.

Leffel's Lever Jacks.

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Truck Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Truck Jacks for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Truck Jacks of the most superior make and kind. For sale by

KNAPP & GRANT,
12v12 3m San Francisco.

A RARE CHANCE FOR INVESTMENT.



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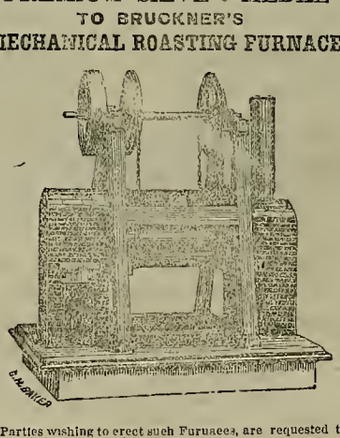
For the Best Chimney Top

Ever invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel. Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee,

E. A. HENRIKSEN,
Or J. E. JOERGENSEN,
12v12 3m No. 328 Kearny street, San Francisco.

The Mechanics' Institute
AWARDED A
PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
12v11 416 Market street, San Francisco.

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,
Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the

PACIFIC FOUNDRY,
1v1 San Francisco.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

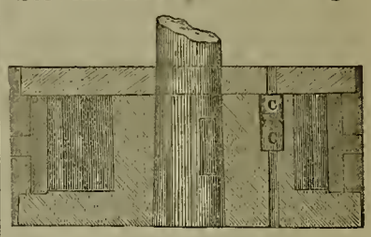
San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 DEVOE, DINSMORE & CO.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in quicksilver, some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df ANDREW STEVENS.

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by TREADWELL & CO.,
3v12-3m Corner of Front and Market streets.

PETROLEUM STOVES.

A MOST USEFUL INVENTION FOR ALL manner of COOKING and for IRONING, without any litter, as ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Smoking by them is divested of its disagreeableness, and becomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,
Proprietors for California.
San Francisco, March 3d, 1866. 10-v12

FOR SALE
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

PAGE'S PATENT
—FOR—
RAISING SUNKEN VESSELS!

SHIPPING AND INSURANCE COMPAnies, and other parties upon this coast or in the Atlantic States, having occasion to avail themselves of this invention, which has been tried, and proved a success, will please address, for the present, JOSEPH DEVINNEY, 1528 Stockton street, San Francisco.

AUSTIN Z. PAGE,
12v12-tf Patentee.

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

The cattle plague which is working such terrible destruction in Europe, is probably the same which has afflicted the world, at intervals, from the earliest periods of civilization. It is, no doubt, the same as that to which Virgil refers, when he wrote—

* * * whose herds to death it sweeps,
High in the stalls it piles the loathsome heaps.

It visited England about the middle of the last century, at which time it continued its ravages twelve years. It subsequently visited Holland, where it continued for eighteen years. No human agency has yet availed to stop its career; it continues until it apparently dies out by natural causes.

Petroleum in Europe.—Reports of discoveries of oil springs in various parts of Europe are being given in the English papers. Those papers predict that the discoveries are such as to warrant the conclusion that they will soon be able to obtain a full supply for all demands without having to resort to America. It is possible that these accounts are exaggerated, although they appear to be received with much credence by the Eastern press.

The Hopeful Builder.—A swallow, in the Spring, came to our granary, and 'neath the eaves essayed to make a nest, and there did bring wet earth and straw and leaves. Day after day she toiled with patient heart; but ere her work was done, some sad mishap the tiny fabric spoiled, and dashed it to the ground. She found the ruin wrought, but not cast down, forth from the place she flew; and with her mate fresh earth and grasses brought, and built her nest anew. But scarcely had she placed the last soft feather on its ample floor, when wicked hands, or chance, again laid waste the ruin o'er. But still her heart she kept, and toiled again; and last night, hearing calls, I looked, and lo! three little swallows slept within the earth-made walls. What truth is here, O man! hath hope been smitten in its early dawn, hath cloud o'ercast thy purpose, trust or plan, have faith, and struggle on!

Labor and Recreation.—Recreation is intended to the mind as whetting is to the scythe, to sharpen the edge of it, which would otherwise grow dull and blunt. He, therefore, that spends his whole time in recreation, is ever whetting, never mowing; his grass may grow, and steed starve; as contrarily he that always toils and never recreates, is ever mowing, never whetting—laboring much to little purpose. As good no scythe as no edge. Then only doth the work grow forward when the scythe is so seasonably and moderately whetted that it may cut, and so cut that it may have the help of sharpening.—*Bishop Hall.*

Important Educational Movement.—The San Jose *Patriot* says that the Methodists of this State are engaged in one of the most extensive educational enterprises of the day. They have purchased a large tract of land on the Stockton ranch, about midway between Santa Clara and San Jose, on the Guadalupe river. The ground is to be twenty acres upon which the University buildings are to be erected. The balance of the land is to be laid out in lots and sold.

Figs grow directly from the bark of the tree and are not developed from flowers, as is the case with most other fruits.

OUR NEW YORK AGENCY.

Mr. Geo. M Newton is our authorized agent in New York City, and will receive advertisements and subscriptions for the Mining and Scientific Press at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "Stockholder," **No. 72 William street.**

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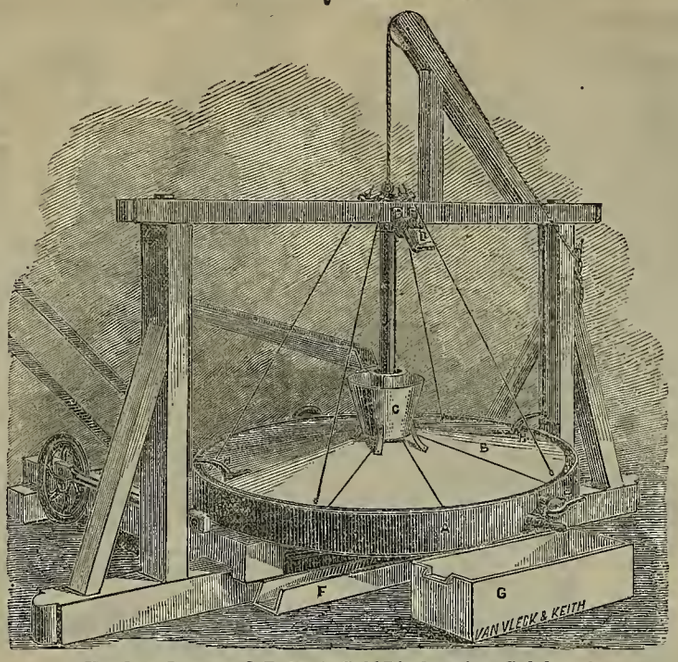
NOTICE TO QUARTZ MINERS.



Hendy's Improved Patent Self-Discharging Sulphurets

PRATER CONCENTRATOR
Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " "
U. S. REESE RIVER MILL, Austin, "
CARROL & ASPINWALL MILL, Reese River, Nevada.
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., "
BLUE LEDGE MILL, near Spanish Flat, El Dorado Co.
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:
One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.

They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.
☞ For explanation of the above engraving, and other particulars, send for a Circular.

JOSHUA HENDY,
8v12tf No. 402 Montgomery street, Room 3, 4th floor.

HEUSTON, HASTINGS & CO.,
—THE—
FASHIONABLE CLOTHIERS
OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLES

—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12-3m ☞ At Reduced Prices. ☜

Stationery & Drawing Paper
WAREHOUSE.

GEORGE B. HITCHCOCK & CO.

Blank Book Manufacturers,

Counting House, Insurance & Bank Stationers,

HAVE THE LARGEST AND BEST SELECTED STOCK

—OF—

FINE STATIONERY,

Writing and Drawing Paper

On the Pacific Coast.

☞ TRADE SUPPLIED ON LIBERAL TERMS. ☜

413 and 415 Sutter street,
15v12 San Francisco.

Prater's Concentrator.
NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Dinsmore's Machine and Iron Works,

SAN FRANCISCO.

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

Address: MORGAN HUNGERFORD,
10-v12 San Francisco, Cal.

California Steam Navigation

COMPANY.

Steamer **CAPITAL**..... .....CAPT. E. A. POOLE.
" **CHRYSOPOLIS**....CAPT. A. FOSTER.
" **YOSEMITE**..... — —
" **CORNELIA**.....CAPT. W. BROMLEY.
" **JULIA**..... .....CAPT. E. CONCKLIN.

One of the above steamers leave BROADWAY WHARF, at 4 o'clock P. M. EVERY DAY (Sundays excepted), for Sacramento and Stockton, connecting with light-draft steamers for Marysville, Colusa, Chico, and Red Bluff.

Steamships AJAX, PACIFIC, ORIZABA, CALIFORNIA, ACTIVE and SENATOR, leave, as advertised, for Honolulu, Portland, Oregon, New Westminster, British Columbia, Victoria, V. I., Santa Barbara, San Pedro, and San Diego.

Office of the Company, northeast corner of Front and Jackson streets.

B. M. HARTSHORNE,
13v12 **President.**

Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the Mining and Scientific Press, of San Francisco, to the consideration and support of the miners of the Pacific coast.

BANCROFT'S CATALOGUE OF
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Babbet Metal Castings;

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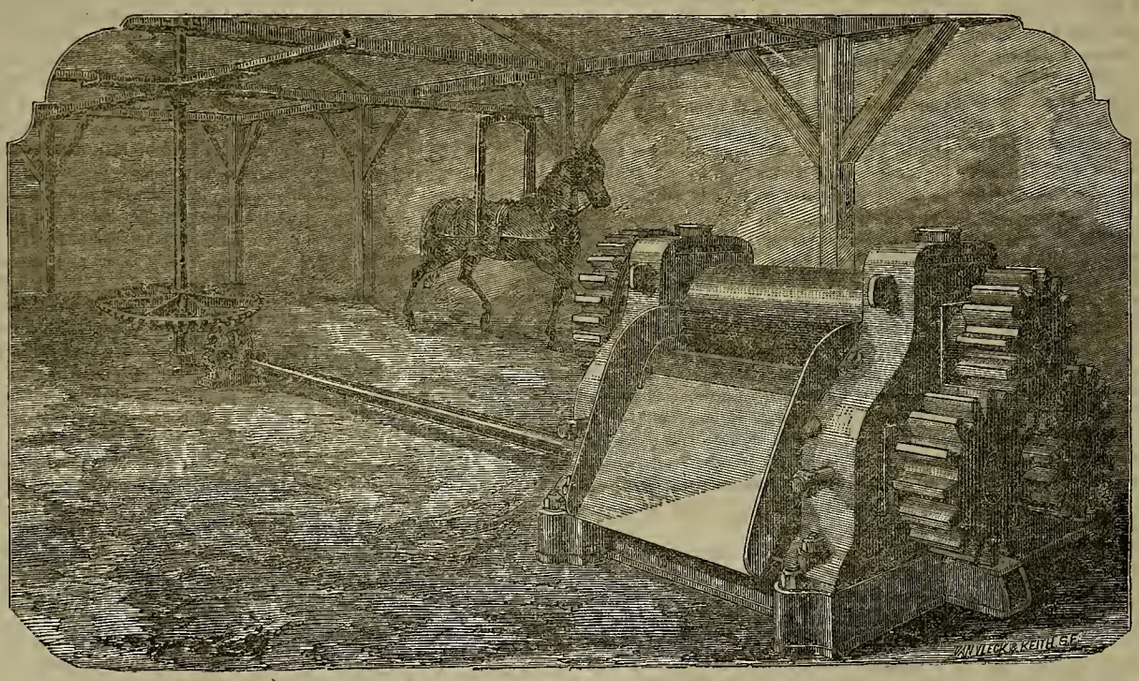
SUGAR ON THE PACIFIC COAST.

The Sandwich Islands are destined to serve the same purpose to the western coast of North America that the West India Islands have so long done to the eastern portion of this Continent and to Europe—they are to become the great source from whence we are to receive our supply of sugar and tropical fruits. The sugar cane is indigenous to those Islands, and can be cultivated there to its highest degree of perfection. Upon this group there are already about thirty-three sugar plantations, the first of which was commenced about the year 1847; but was not considered a successful enterprise until some four years after. Since 1855 the sugar interests there have continued steadily to increase, until the present time. The exports of sugar last year reached the large amount of 15,000,000 pounds. A very large quantity of molasses was also exported.



This group of Islands consists of thirteen in number, five of which are, however, mere islets; the other eight are inhabited, containing a population of about 75,000 souls, with an area of nearly 7,000 square miles. Hawaii is the largest and most eastern of the group, and contains more superficial territory than the entire State of Connecticut.

The Islands are mountainous, with beautiful slopes, and contain numerous fertile valleys. They are situated almost directly in the track of several very important sea routes; besides being themselves the principal depots for the Pacific whaling fleet. They are almost in a direct line between this city and Japan and China.

The capital, and principal port of the group, is Honolulu, which is situated on the island of Oahu. A steam propellor is kept constantly running between the capital and the other islands of the group. The produce of all the islands is collected at Honolulu, from whence all exports are made. A large fleet of inter-island schooners is employed in this business.

The number of sugar plantations has doubled within the past three years. The Government of the Islands is modeled very much after that of Great Britain.

Several of the larger plantations yield annually from 700 to 800 tons of sugar. Native labor is chiefly employed; although recently numbers of coolies have been imported. These coolies are landed there at a contract cost of $80 each, and bound for five years at a monthly rate of wages of from $4 to $5, and found.

The principal thing now needed to develop the resources of these islands is capital; the requirements for which are very large in plantation business. All the sugars now raised there are consumed on this coast, and yet the supply from that source is but a little over one-third of the demand for this port. There is no reason why the business there may not be indefinitely increased, even beyond the immediate demand here, by seeking foreign markets.

The city of San Francisco has an important interest in the building up of the sugar business at the Sandwich Islands, from the fact that such an industry will call for a large amount of machinery, which must be furnished from this city. Steam engines, boilers, sugar rolls, evaporating pans, water and horse powers, gearing, shafting, conducting pipes, etc., will be wanted, just in proportion to the extent of the business. Numerous orders for this kind of machinery have already been filled; and the demand therefor is rapidly increasing. The first machinery introduced at the Islands was obtained from England. Experience, however, has proven that it can be now economically purchased in San Francisco.

The proprietors of the Miners' Foundry have taken much pains to procure the latest and most approved drawings and specifications for this class of machinery, and are now prepared to execute orders for any kind which may be required either in the production of the raw material, or for refining purposes.

In the annexed engraving we give a representation of a set of sugar rolls, to be driven by horse power, or which may be readily adjusted for steam or water. This apparatus consists of three heavy iron rollers, keyed on heavy wrought iron shafts, working in properly constructed bearings, fitted into massive cast iron head stocks, the whole firmly bolted to a heavy iron bed plate, which also forms the pan into which the cane juice is received, from the first operation to which it is subjected.

The machinery required in the manufacture and refining of sugar is among the most expensive and complicated of any which enters into the range of industrial pursuits; and the establishment of a heavy interest of this kind on the Pacific Coast, supported by the raw material drawn from the neighboring islands, cannot fail to add largely to the extent of the mechanical interest of San Francisco.

The quality of Hawaiian raw sugars averages very high, and it is gratifying to remark the satisfactory results which have generally attended the sugar interests of the Islands during the past year. It is also a matter of congratulation and a most significant fact, that Hawaiian sugars have reached the highest *value* on our list of imports, although the quantity imported is exceeded by that from Manila.

From official returns at our Custom House, we gather the following summary of weight and value of Sugars imported into San Francisco during the year 1865, receipts of which were divided as follows:

Hawaiian Islands	lbs 13,554,505	$862,617
Manila	14,468,140	545,835
Peru	3,329,101	202,242
China	2,276,160	112,581
All other places	1,330,487	57,520
Total	lbs 34,958,402	$1,780,795

THE CALIFORNIA BUILDING AND LOAN SOCIETY.—This institution, which was first inaugurated some five years since, under the chief management of Mr. Thomas Mooney, its present president, has recently greatly enlarged its sphere of usefulness, and is now a joint stock company with 400 partners, managed by nine directors, with a paid up capital of $250,000. The society has purchased and fitted up a very fine building for a banking house, on California street, next door above Sansome. The principal object of this institution is to assist industrious persons to erect dwellings for homesteads, etc.; and to extend the facilities of bank accommodation in a more liberal manner than has hitherto been done in this city. Hundreds of families, it is said, have already possessed themselves of comfortable homesteads through its aid. The new building was inaugurated a few days since, on which occasion a large number of our substantial moneyed men were present, several of whom addressed the meeting. Mr. Mooney read the new propositions of the Directors (which will be found in our advertising columns), and commented upon each article. He said that the credit hitherto afforded by the banks of California, was totally inadequate to the wants of the commercial and industrial classes of the people. What merchant or manufacturer could start any enterprise on a thirty days' credit and the apprehension of steamer day? They had the finest country that the sun shone upon, yielding the finest white wheat, finest wool, finest vegetables, finest wines, and the earth plethoric with gold, silver, quicksilver and other metals, and yet thousands of persons were out of employment, and crying aloud for work. This, he thought, arose from the want of liberal banking and longer credits. The Building and Loan Society had resolved on extending accommodation to manufacturers, shipping and general trade, not for thirty days, but for thirty weeks. His remarks were received with hearty cheers.

C. E. GEDDES, architect, No. 315 Montgomery street, between Pine and California, room 14 (up stairs), can be consulted at all times in reference to plans, estimates, specifications and detail drawings, for all kinds of buildings. Any work above described submitted to him, will be attended to with accuracy and dispatch.

CURE FOR RHEUMATISM.—Those suffering from rheumatic complaints should go for relief where experience has proved the efficacy of the remedies administered. Dr. Johnson has had remarkable success in rheumatic operations. The case of Daniel Somerset is a notable proof of his skill. His office is No. 700 Market street.—*California Leader.*

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

Sodium Amalgamation.

WHY DOES SODIUM ASSIST THE AMALGAMATION OF METALS?

Sometime since, and before I had heard of the use of sodium as an assistant in amalgamating metals, I prepared the result of the following experiment for publication. Circumstances delayed it, but I now give it to the interested for what it is worth. Having given my views to several practical men in this city, they tell me that the theory explains many things which they have met in their experience that were incomprehensible to them, and they have urged me to make it public.

THE EXPERIMENT.

Take a clean tumbler and fill it about two-thirds full of clear water; then drop a little finely pulverized metallic powder upon the water. Gold dust or bronze, (such as printers use, and nearly every printer has it,) or silver powder will answer, provided it be sufficiently fine. Then stir it smartly with the handle of a spoon or the blade of a knife. It will be seen that the powder will not sink in the water; but, on the contrary, the more it is stirred the more obstinately it keeps at the top. When you have sufficiently demonstrated to your own satisfaction the almost impossibility of sinking the metal, which, being heavier than the water, by the laws of gravity should sink, drop into the tumbler a little caustic potash or soda, and stir a little, the powder will then be seen to leave the top, and in a short time settle at the bottom of the water.

THE CAUSE OF THE METAL FLOATING.

Atmospheric air adheres with great tenacity to any highly polished surface, and is very difficult to displace. It preserves a knife-blade by preventing the moisture from getting to it to oxidize it. Dip a knife-blade or a razor into water, and drawing it out you will find that it has not been wet—a film of air interposed between it and the water. So with each particle of dust which you placed on the water in the tumber. Notwithstanding its being so exceedingly fine, it is surrounded with a layer of atmospheric air as thick as that on the surface of a knife-blade. The particle being round and smooth, no mechanical means which you can use will displace the air so that the water can get to it, and the air being lighter than water, acts as a balloon to sustain the piece of metal. If you agitate it in the water with a spoon, or force it down by any other means, the air will still stick to its piece of metal, and as soon as you let it alone, it will rise to the surface. How it is that the alkali makes the air let go of its hold on the metal, I do not know. The experiment shows that it does do so, and the metal sinks.

APPLICATION OF THIS TREATMENT TO AMALGAMATING THE IMPALPABLE GOLD DUST IN QUARTZ ROCK, AND ITS THEORY.

Suppose every particle of gold dust in quartz rock to be as fine as the dust with which this experiment is made (and much of it is finer), very little of it would have its film of air displaced by the mechanical operation of crushing, although on account of much of it clinging to the particles of quartz it would not float; part of it would sink to the bottom, part would remain floating between the bottom and the surface of the water, the film of air and the quartz dust fighting for the mastery, the air trying to take it to the top, and the quartz dust trying to pull it down. As long as the particle of gold or silver remains covered with the air, the mercury cannot come in contact with it any more than can the water. The mercury to take it up must come in contact with the naked gold, and not with the gold protected by a mantle of atmospheric air. Therefore, in order to the effectual amalgamating of gold or silver dust from quartz rock, some means must be used to disperse the air surrounding the particles of dust. Heat will do this partially, but caustic potash or soda will do it effectually. It also acts as a deoxydizing agent—that is if the oxyde of some base metal should be in contact with the gold, it will remove it or clean the gold, and it will keep the mercury clean.

About one pound of caustic potash or soda will remove the air from metal that is immersed in five gallons of water. Does not this explain the cause of the advantage derived from the use of sodium? If this is the true theory, whence the necessity of using the expensive metal itself? It cannot be denied that the sodium is oxydized and becomes soda, and is dissolved in the water in the pan. When that takes place, and not until then, does the sodium produce the beneficial results.

I am aware that alkalies have been used in amalgamating pans with partial success. But have they been used intelligently? Common potash or soda of commerce in the best state in which you can buy it, is composed of forty or fifty per cent. of carbonate. In transporting it to the mines, and from exposure to the air when opened, a much larger percentage is turned into carbonate, and in that state is of little use to disperse the atmospheric air. To be effectual for this purpose, it must be as nearly caustic as possible.

In regard to the electrical effect resulting from the use of alkalies in the amalgamating pans, my experience proves that it cannot be otherwise than highly beneficial. Zinc, lead, and antimony would be taken up in large quantities by a caustic alkaline solution, when contained in an iron vessel. I have used, and for some purposes prefer to all others, especially for precipitating the reguline copper, a battery composed of iron and zinc in a solution of caustic potash. WM. HILMER.

San Francisco, April, 1866.

[Written for the Mining and Scientific Press.]

Influx of Water into Mines.

BY PROFESSOR ROWLANDSON, F. G. S. L.

A recent number (10th February last) of the London *Mining Journal*, contains a brief but most interesting letter from Mr. Charles Bawden, an able Cornish mining engineer, relative to the above caption. In the course of the letter, Mr. Bawden shows by actual gauging, that the water discharged through the "Gwennap Main Adit" only amounted to one-half of the quantity pumped from the lower levels to the adit, from which the inference is positive that one-half the water drawn from below, in its passage along the adit again percolates into the mine, thus causing a double charge for pumping. This is one of many instances that could be adduced, where an immense outlay is occasioned in mining from non-attention to what is oftentimes mistakenly considered a very trivial cause.

Few persons, perhaps, would be particularly struck with the above fact, from causes not now necessary to explain; the writer of this article was more than twenty years ago induced to believe that the fact was pretty nearly as stated by Mr. Bawden, and about that time he so informed the managers of the great mines in the Gwennap district, as also those interested in the great workings of the contiguous districts of Cambourne, Gwinear, etc., and was laughed at by every self-styled practical mining captain—the cost so occasioned being classed by these *practical* men as too contemptible to be noticed.

I believe it was at the last meeting of the British Association, that another gentleman demonstrated that fully one-third more water was raised from the coal mines in the district of the ten yard coal in Staffordshire, than the entire rainfall, which would be equivalent to the proportion found to be raised in excess at Gwennap, as returning to the mines after being raised to the surface. To remedy the evil, Mr. Bawden recommends that the water raised to the surface should be conveyed through secure tubes or channels until discharged from the mouth of the adit. I would, however, suggest that when practicable a step in addition should be adopted, namely, that where the nature of the ground permits, such water-tight channels or tubes should be prolonged on the hillside to a point below the level of the water in the mine before the latter is permitted to run free. On this coast where pumping is so costly, such precautions are doubly valuable.

The gold bearing quartz in the vicinity of the Great Falls of the Potomac, about fourteen miles from Washington City, is beginning to attract considerable attention.

No change has been made in the form of the plow used in Sicily since the times of the Romans.

[Written for the Mining and Scientific Press.]

Mining About Greenwood, El Dorado County.

EDITORS PRESS:—Having a few spare minutes, I thought I would give you an idea of the mining prospects of the neighborhood, around Greenwood. I never saw better looking lodes (for gold) in any place in the country, than are to be seen here, and I am greatly surprised that so little effort has been made to develop them.

One ledge especially, which I recently visited, I found with a hole sunk upon it on the "foot-wall," twenty feet deep and twenty-five feet long, being in fact an open cutting. Out of this cutting there has been $1,000 taken; yet, owing to the ground being a little soft and timber required, this apparently very valuable mine is not worked. The croppings are from eight to ten feet thick, and can be traced at intervals for miles, and much free gold can be seen throughout this whole extent. I obtained two bits to the pan from some of the fine quartz. I gave my opinion of its merits to the owners of this mine, and explained how they might work it to advantage. Since my visit, I have been informed that in a few days they will commence to sink a new shaft, nine feet long by five feet wide, and I have no doubt that in a very short time a valuable mine will be the result; of which I will duly post you, so that this much-neglected place may have that attention paid to it which it deserves.

It is true that Grass Valley is famous for its quartz mines; of that fact I am fully aware, as I have spent several years there; but I know, also, that there are equally good prospects here. All that is wanted here is capital, when as good mines as California can produce will be found.

Now, gentlemen, you say in the city of San Francisco, "All aboard for Grass Valley!" I would say to you, "get on board for Greenwood," and examine for yourself, when I am satisfied your judgment will at once corroborate my statements, and you will be enabled thereby to tell of the hidden treasures of this district. I will at times keep you posted with regard to the mining prospects of this place.

In conclusion I would say, that the chief reason why more quartz ledges are not worked here, is owing to the fact that the miners are mostly engaged in placer mining, and the further reason that they are comparatively poor and unacquainted with quartz, or any other mining below the surface.

R. POWNING.

Greenwood, April 9, 1866.

NEW MINING ENTERPRISE.—A new mining enterprise of no mean magnitude has been inaugurated in our county, says the Monterey *Gazette*. Milpitas ranch, near the Mission San Antonio, in the southern extremes of this county, is to be worked by the Ning Yung Company, who have bought it. It has long been known that there were extensive fields of gold-bearing placers in that section, and during the wet season of every year parties have successfully operated, although on the smallest scale, making three dollars per day, after picking dirt for some distance and panning or rocking it out.

THE MEMORY OF A MOTHER.—When temptation appears, and we are almost persuaded to do wrong, how often a mother's word of warning will call to mind vows that are rarely broken. Yes, the memory of a mother has saved many a poor wretch from going astray. Tall grass may be growing over the hallowed spot where all her earthly remains repose; the dying leaves of autumn may be whirled over it, or the white mantle of winter may cover it from sight; yet the spirit of her, when he walks in the right path, appears, and gently, softly, mournfully calls to him when wandering off into the ways of error.

NEW ORLEANS now has a population larger by 60,000 than ever before; Galveston and other Texan cities are full to overflowing; and the same is said of Memphis, Mobile, Montgomery, Atlanta, and all the towns of the Southwest.

THE eternity of the Union of the States consists, essentially, in the fact of their indestructibility. A star may dim, but not one shall ever leave the constellation.

THE increase of children in Iowa, between the ages of five and twenty-one years, during the year 1865, was 28,411.

[Written for the Mining and Scientific Press.]

Reese River Correspondence.

EDITORS PRESS:—In your issue of March 31st, I observe a letter from Mono county, California, entitled "The Cause of Failure in Mining Enterprises," in which the incapability of mining superintendents is touched upon in no very mild manner, and being of like opinion with your correspondent, with your permission, would extenuate upon the present "mode" of conducting mining enterprises, particularly as they have come under my observation in this Reese River section, with the hope that they may prove worthy of your consideration. I should judge your correspondent to be one of much practical experience in mining; at all events, his observations of the manner of the proceeding in mining by inexperienced men are correct. He is also perfectly correct in saying that the slow progress of development of our mining interests is the result of inexperienced men being placed at their head. He also says that we of Reese River can, to our sorrow, vouch for the correctness of his remark. To my regret, I must say we can.

Reese River is at present in a worse condition, in respect to development of mines, than it was three years since. Originally the mines were held and owned by the discoverers—men who immigrated here in the early days of the country, whose only hope of success was in the development of their respective mines, which development was prosecuted with all the energy their limited means would admit of. Through accident, as it were, some Eastern capitalists were induced to interest themselves in our midst merely as a venture. And from that time to the present, with all the capital that has been expended, we have been pretty much at a stand still, all original owners only wishing to sell, leaving the unfinished work of development to the purchasers. But Eastern capitalists have interested themselves by degrees to such an extent that they are the virtual owners and possessors of the whole section; and to them alone in the future must we look for succor and the development of our mineral wealth.

The real blame for the slow progress of the development of our mines is not wholly due to the superintendents. They, as a general thing, being pretty good fellows, always ready to turn an "honest dollar," by accepting from their patrons a position at a good salary, the requirements of which position they are entirely ignorant. They are satisfied in their positions and their salaries; and if their employers do not meet with satisfactory returns, it is the company that is at fault in the choice of managers, and not the mistakes the superintendents make through ignorance or inexperience.

The proper course to pursue would be for capitalists to engage practical men, experienced in mining, to conduct such companies. Men who have become miners through the use of mining implements; who have delved and worked day after day in search of the "hidden treasure," who can tell when the day is passed whether the laborer is worthy of his hire, and who have personal knowledge whether the work of the day has been properly executed.

Eastern mining speculators have a mania for mills, and have gratified their taste here to such an extent, that there is at the present time in this county of Lander, at the lowest figure, at actual cost of purchase and erection, two million dollars of mill property lying idle; while those in constant and occasional milling do not consume over thirty-five tons of ore *per diem*. To cap the climax, there is no prospect of a change for the better under the present management. Some companies have expended all their working capital on their mills, and, consequently, have no means with which to prospect; others having money are prospecting after their own ideas of mining, and generally with but little if any judgment or success.

Those interested in mill property are unwilling to invest even in fuel or timber to any extent, even at good bargains; their excuse being they want ore first.

It is a lamentable fact that we are at a "stand-still," poised as it were upon a pivot. Our success or ultimate destruction depends alone upon the action of the possessors and owners of our mineral lands, upon the proper course of working, by placing at the head of the enterprises men of experience and judg-

ment; our destruction and slow depreciation, as a mineral region, in the continuance of inexperienced men experimenting. By the present mode of proceeding we shall continue to sink and depreciate until we shall be led to believe, even against our will and the knowledge of the vast richness of this section, that we are a total wreck, and that mineral is not and never was found here.

This state of affairs is truly provoking, and particularly to those conversant with the present state of mining matters. Superintendents themselves acknowledge the true state of affairs, but they argue very sensibly for their interest that their salary is as good and better to them than to another.

Some few mines under the supervision of "miners" of long experience, and who can and do take hold themselves, are doing well, and the work done thereon is a credit to those in charge. Although I am not pecuniarly interested myself, and not requested so to do, I mention one or two instances wherein there have been good results shown through a proper course of working.

The Savage company, situated on Lander Hill, under the supervision of W. O. Hubbard, is a producing mine, and is supplying the California mill with a sufficiency of ore for her capacity (10 stamps), and of a very superior quality. Through energy and judgment alone has this result been attained. This mine ships fully half the bullion leaving Reese River at present.

The Metacum mine is another instance of the fruit of experience and judgment in mining. This mine is situated about four miles northerly from this city, and contains 800 feet; and under the superintendence of an experienced miner of long standing, Mr. John Howell, it shows a system in working and a thorough development of the mine second to none as yet shown in this district. The ledge is cut by a tunnel at a depth of 124 feet from the surface, from which point of tunnel there has been a shaft raised to the surface, showing a ledge without a flaw the whole depth of from eighteen inches to two and a half feet in thickness. From said point or terminus of tunnel there has been a level run, both northerly and southerly, over 150 feet, uncovering the ledge, and at no point in said level is the ledge at fault; thereby laying open over 300 feet in length by 124 feet in depth of ledge, and ready for the mill. This body of ore will average, per mill working, at a safe estimate, $125 per ton. Work is still being prosecuted both in the levels and in sinking perpendicularly on the vein, the ledge increasing in width and richness as depth is attained; and further, not until there was money sufficient (in ore) found was there a mill contracted for. The company have a mill upon the ground, and now in course of erection, and by the 1st of August it will be hammering away on the known product of their own mine, and will be founded, as many others here are not, on a solid foundation. Others I could name, and many a competent man to fill the places with success, now occupied by those incompetent to fill them, either to the advantage of their employers, or to their own credit as managers. And I will further say without reserve, that until alteration is made, we shall continue to "drag," as we have—to use a homely expression—the "cart being before the horse."

PROGRESS.

Austin, April 7, 1866.

COPPER DISCOVERY.—The Nevada *Gazette* says that great excitement is raging in Little York township, caused by the discovery of a copper ledge, believed to be immensely rich. This ledge was discovered several months ago by John Thorp, who resides at Hermitage Ranch, while hunting on the other side of Greenhorn. He made a location, and has sunk a shaft some ten feet in depth upon the ledge, finding copper ore of extraordinary richness. The ledge has been traced from Thorp's location in a southerly direction to Bear river, and northerly to Deer Mountain, within three miles of Nevada, a distance of five or six miles. Numerous extensions have been located, and the country between Greenhorn and Bear River is full of prospectors. Specimens taken from Thorp's shaft look exceedingly well, containing much black oxide of copper and peacock ore. An assay of ore, made a few days ago, yielded thirty seven per cent. of copper; but this was probably a choice specimen. This is the most promising copper prospect that has yet been discovered in the county, and the indications are that the ledge will prove valuable. Many of the locators think they have a fortune secure, and some of them have heretofore been interested in copper prospecting, and are not likely to be easily excited.

MORE than one million of Webster's spelling books have been sold to the South since last April, and the demand is so much greater than the supply that the publishers have sent to England to get it printed.

Hardening and Tempering Steel.

When steel is heated to a cherry-red color, and then plunged into cold water, it becomes so extremely hard and brittle as to be unfit for almost any practical purpose. To reduce it from its extreme hardness is called by the workmen *tempering*, and is effected by again heating the steel to a certain point. The surface being a little brightened, exhibits, when heated, various colors, depending upon the formation of thin films of oxide*, which constantly change as the temperature is increased, and by these colors it has been customary to judge of the temper of the steel. But a more accurate, as well as convenient method, is to use a bath and thermometer; the bath may be of mercury, or of the fusible mixture of lead, tin, and bismuth, or, indeed, of any fluid whose boiling-point is not much under 600°. Into this bath the articles to be tempered are put together with the bulb of a thermometer graduated to the boiling point of mercury. The corresponding *degrees* at which the various colors appear are from 430° to 600°. The first change is at about 430°, but this is too faint to be distinguished, except by comparison with another piece of untempered polished steel. At 460° the color is *straw*, becoming deeper as the temperature is increased; at 500° the color is *brown*; this is followed by a *red* tinge with streaks of *purple*, then *purple*, and at nearly 600° it is *blue*. The *degrees* at which the respective colors are produced being thus known, it follows that the workman has only to heat the bath, with its contents, up to the required point. For example, suppose the blade of a penknife (or one hundred of them) to require tempering: they are suffered to remain in the bath until the mercury in the thermometer rises to 460°, and no longer, that being the heat at which the knife (supposing it to be made of the best English cast-steel) will be sufficiently tempered. The advantages attending this method are obvious; the heat is equally applied to the whole; and the workman, instead of attending to the color of each blade, has only to observe the thermometer.

It has been found that steel, for certain uses, is sufficiently tempered long before it is heated to produce any change of color, a circumstance which gives additional value to the process by a thermometer. The knife-edges attached to a pendulum described by Capt. Kater, (*Phil. Trans.*, 1818, p. 38,) were forged by Mr. Stodart from a piece of fine wootz [a variety known as Indian steel, usually containing a small percentage of tungsten, and from which the famous Damascus sword blades were supposed to be made]. They were carefully hundred, and tempered in the bath at 430°; on trial they were found too soft. They were a second time hardened, and then heated to 212°. The intention was to increase the heat from that point, trying the temper at the advance of about every ten degrees. In the present instance this was not necessary, the heat of boiling water proving to be the exact point at which the knife-edges were admirably tempered. It is highly probable that steel, for many uses, may be sufficiently tempered in a range so extensive as from 212° to 430°, and, by the thermometer, all the intervening degrees may be certainly ascertained. But it is not the temperature only, but also the time during which the steel is exposed to it, which influences its hardness or temper.

What may be the changes effected in the molecular constitution of steel by the operation of hardening is an important, but a very difficult and undecided question; that they are considerable, there can be no doubt, but that they extend beyond mechanical arrangement, and affect chemical composition, according to the notions of Karsten, is a theory which requires much more satisfactory proof than it has hitherto received; nor are the changes which other substances undergo by a similar operation in any way illustrative of or applicable to those of steel, the electro-magnetic properties of which are not less remarkable than the coarser mechanical changes which it sustains, and which are in all probability someway related to each other, and to the more abstruse causes of crystalline peculiarities. There is certainly in many points an analogy between annealed or suddenly cooled glass and tempered or hardened steel, and the extraordinary molecular and crystalline peculiarities of glass, when more correctly understood, may, perhaps, tend to throw some light upon the more obscure subject of steel, but as yet this is not the case. It is, however, by no means uncommon to find the same unstable arrangement of particles and inequality of tension in a mass of hardened steel, as in a lump of glass which has solidified in cold water; from the surface to the interior, successive crusts or coats of variable texture and hardness present themselves. Sometimes a steel die, after it has been for some time hardened and apparently safe, will split with an audible report, and its fracture will then exhibit a soft core covered by successive coats or layers, increasing in hardness from the center towards the exterior.

In addition to the difficulties arising out of the mass with which he has to deal, and the changes of texture, if not of composition, which it has necessarily been subjected to in the various operations of perfecting the impression from the punch in the press, the manufacturer of dies for medals or coinage has another obstacle to contend with, which is the necessity of keeping the face or work of the die perfectly clean and free from scales and oxydizement, so that it may not only be without any obvious blemish, but present that peculiar velvety line which so much enhances the beauty of the subsequent impressions in gold, silver, or copper: to this end the charcoal in which the die is imbedded, when it is heated previous to hardening, must be carefully looked to; it should be animal charcoal, and cyanogen, if present, is rather favorable than otherwise to the ultimate result; moisture, air, potassium, sulphur, and other things sometimes present in charcoal, are injurious; and when the die is at a proper heat and ready to be plunged into the hardening cistern, or submitted to the sudden action of a gush of water, all contact of air with the face of the die must be scrupulously avoided. Protecting pastes are seldom of much use.

The degree of hardness attainable by steel will depend upon the heat to which it had been raised, and the coldness of the water or other medium into which it is plunged; so that when very cold water cannot be procured, the die or other article must be heated proportionately high; a dull red heat into water at 34°, a cherry red into water at 50°, an orange heat into water at 80°, and a dull white heat into water at 100°, produce nearly the same effects; but the real hardness attained in water which is warm never equals that given by cold water; a red heat and water at 45° is the most desirable for die hardening; and although by subsequent tampering the die may, if necessary, be *brought down*, or softened, it is always safest to give it, if possible, its due hardness by the first operation. The risk of injuring the face of a die by oxydizement or scaling, or of *burning* the die, as it is usually called, increases greatly with a high temperature, and this is another reason why, in this particular branch, a moderate heat and very cold water is greatly to be preferred to a higher heat and warmer water. The hardening of steel when in thin bars, or other regular form, and where extreme cleanliness of surface is dispensed with, is comparatively an easy and certain operation.

The aspect of steel when so broken as to exhibit a clean fracture, varies from an uniform silky and even surface of an almost silvery whiteness, to a fine or even coarse grained texture, of a more blue or iron-like aspect; the finer-grained varieties are generally preferred, but no very important or at least unerring conclusions respecting its quality can be drawn either from texture or color. The microscope, however, enables us to observe some remarkable peculiarities in steel, not only in its varying texture as it comes from the manufacturer, but also before and after hardening. The fact of its dimunition of density after hardening, or in other words, the increase of bulk which it then sustains, has long been known. Steel, of the specific gravity of 7.738, was found by Hawksbee to be thus reduced to 7.704. Brisson found the density of good English steel to be increased by hammering from 7.833 to 7.872. After hardening, the former had decreased to 7.816, and the latter to 7.818. Dr. Thomson found the density of good blistered steel to be 7.823; when heated to redness and suddenly plunged into cold water its density was reduced to 7.747. The specific gravity of a piece of cast-steel he found = 7.8227; but when hardened only = 7.7532. (*Inorg. Chem.*, i. 497.) I have found even greater differences; and, in fact, the higher the heat to which the steel is raised, and the colder the medium in which it is cooled, the greater will be the resulting difference of density; for it is probable that the increased bulk attained by the steel under the expansive influence of heat, is retained by the suddenly cooled mass, and hence the peculiar state of tension into which it must be thrown when it has ultimately cooled down to the temperature of the atmosphere; and, indeed, it is surprising that masses of steel, which have undergone the process of hardening, are not more brittle and uncertain than experience proves them to be. According to Regnault, the mean specific heat of soft steel is 0.1165; that of hardened steel, 0.1175.

The quality of steel is sometimes tested by washing over its clean surface with dilute nitric acid, which ought to produce an uniform grey or blackish color; if the steel is imperfect, and contains veins or pins of iron, they become evident by their difference of color. When some particular kinds of iron or steel are thus tested, a mottled appearance is produced, as if it were composed of layers or wires of iron and steel welded together; hence is supposed to arise the peculiar character of the celebrated *Damascus* sword-blades.

* That the color produced on the surface of heated steel is the effect of oxydation, is proved from the circumstance that when steel is heated and suffered to cool under mercury or oil, none of the colors appear; nor do they when it is heated in hydrogen or nitrogen.

On a New Sulphid of Carbon.

Low, a German chemist, has described a new sulphid of carbon obtained by the action of an amalgam of sodium upon the bisulphid. When semi fluid amalgam of sodium is shaken with bisulphid of carbon in a well-corked bottle the temperature of the mixture rises, and the process is complete, when after repeated addition of the bisulphid heat is no longer evolved. If the mixture be then thrown into water, a blood-red solution is formed, which, after filtering, contains much mercury; by passing sulphureted hydrogen for some time into the solution, this may be removed. The dark-red solution is then to be poured into dilute chlorhydric acid with constant stirring. A flocky red substance is separated which aggregates to a tough resin, while much sulphureted hydrogen is given off. The resinous mass is to be washed continuously with hot water as long as it smells of sulphureted hydrogen. On cooling it becomes brittle, and then yields a violet-brown glistening power which may be purified by solution in bisulphid of carbon, filtration and evaporation. The new sulphid is but slightly soluble in alcohol and ether, but is readily soluble in bisulphid of carbon with a red color. It dissolves in the pure alkalies, as well as their carbonates, with partial decomposition, but appears to be taken up by alkaline sulphids without alteration. Concentrated sulphuric acid dissolves it with a red color and water precipitates it from this solution. Nitric acid of 1.5 attacks it violently and appears to form a new acid. Heated in a closed tube to 100°, the new sulphid melts to a tough resin, and remains in this state after the temperature rises to 150°. Sulphureted hydrogen is then given off. At 200° an amorphous yellow body sublimes, and on further heating much voluminous carbon remains. Analysis gave for the new body the formula $C_2 S_3 H$. The author explains its formation by the following equations:

I. $2C_2 S_4 + NuHg = 2NaC_2 S_3 + NaS.HgS.$

II. $2NaC_2 S_3 + NaS.HgS + HS = 2NaC_2 S_3 + NaS.HS + HgS.$

III. $2NaC_2 S_3 + NaS.HS + 3HCl = 3NaCl + 2HS + 2HC_2 S_3.$

Low regards the body $C_2 S_3$ as a radical analogous to cyanogen or methyl. The compounds of this radical with the alkaline metals are dark red to black and easily soluble in water; those with the heavy metals are brown or black precipitates.—*Wittstein's Vierteljahresbericht*, 1865, *vol.* 14, *p* 483.

OIL BORING IN COLUSA COUNTY.—We are indebted to M. S. Whiting, in 1863 State Senator from this city, for some information about oil boring at Oil Center, Colusa county, twenty-three miles in the foot-hills of the Contra Costa range, about 200 feet above the level of the Sacramento river, at the town of Colusa, which is twenty-three miles distant eastward. He is engaged with several gentlemen of this city in boring a well, which is now down 460 feet, and which has cost so far $30,000. The greater part of the distance the auger has passed through sandstone and shale. At a depth of fifty feet a vein of lubricating oil was struck; at 112 feet another vein; 217 another, and at 361 feet some shale, with the new color, known as Humboldt Blue. At 196 feet and at 380 feet again, specimens of petrified oak wood were found. The boring is still in progress. The well is filled with a strong salt water, the supply of which is not known, no attempt having been made to pump the well for fear of injuring it. Through this salt water there are frequent escapes of gas, which throw the water out of the well. For a period of thirty days while the auger was passing from a depth of 175 to one of 260 feet, the water rose three feet about 3 P. M., and again at 6 P. M., and soon after fell to the ordinary level. There is no known explanation for this tidal movement. After the auger passed a depth of 260 feet no tide was observed. In Antelope Valley, eighteen miles north of Oil Center, there is a salt pond, and in the vicinity is Salt Creek, which is saturated with salt about June, and becomes entirely dry in August, and during the rainy season has a barely perceptible saline flavor. The less the water the greater the proportion of salt. In Bear Valley, six miles west of Oil Center, a large deposit of sulphur has been found, and it is said that some has been sold to merchants in San Francisco.—*Alta.*

BARBAROUS LAWS.—As a specimen of the barbarity of some English laws, it is recorded that recently an old man committed suicide, being unable to endure the loss of his wife. He was buried at midnight, in contumely and disgrace, his property confiscated to the Crown, and his daughter left penniless.

A STORY is told of a Quaker volunteer who was in a skirmish. Coming in pretty close contact with one of the enemy, he remarked, 'Friend, it's unfortunate, but thee stands just where I am going to shoot,' and blazing away, down came the obstruction.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD
No afternoon session.

Friday, April 13.
AFTERNOON SESSION.

276 shs Ophir at 850@825 per foot.
72 shs Ophir at 850@835 per foot, s 3.
24 shs Ophir at 845 per foot, h 15.
36 shs Ophir at 825@830 per foot, s 30.
24 shs Ophir at 850 per foot, h 3.
18 shs Yellow Jacket at 84 @975 per ft.
1 sh Yellow Jacket at 850 per foot, s 10.
2 shs Yellow Jacket at 840 per foot, s 3.
8 shs Yellow Jacket at 840 per foot, h 3.
6 shs Yellow Jacket at 840 per foot, h 10.
10 shs Chollar-Potosi at 376 per foot, h 30.
6 shs Chollar-Potosi at 365 per foot.
80 shs Daney at 14 per foot.
80 shs Daney at 15 per foot, h 30.
2 shs Belcher at 360 per foot.
5 shs Belcher at 370 per foot, h 30.
5 shs Belcher at 360 per foot, h 6.
13 shs Imperial at 146@148 per share.
15 shs Imperial at 150@152 per share, h 30.
15 shs Imperial at 147@147½ per share, s 30
5 shs Imperial at 148 per share, s 3.
100 shs Exchequer at 10 per foot.
18 shs Exchequer at 10 per share, s 3.
3 shs Empire M & M Co. at 200 per sh.
1 sh Empire M & M Co. at 200 per sh, h 5
20 shs Sierra Nevada at 8¾ per share.
Amount of sales.....$ 80,190 00

Saturday, April 14.

132 shs Ophir at 855@8660 per foot.
48 shs Ophir at 860 per foot, s 3.
12 shs Ophir at 865 per foot. h 3.
48 shs Ophir at 850 per foot, s 30.
12 shs Ophir at 865 per foot, h 10.
10 shs Chollar-Potosi at 365@360 per foot.
2 shs Chollar-Potosi at 355 per foot, s 5.
2 shs Chollar-Potosi at 360 per foot, h 10.
5 shs Chollar-Potosi at 360 per foot, h 30.
27 shs Yellow Jacket at 830@810 per ft.
7 shs Yellow Jacket at 830@810 per ft, s 3.
10 shs Yellow Jacket at 820@850 per ft, h 30.
5 shs Yellow Jacket at 820@825 per ft, s 10
20 shs Daney at 14 per foot, s 3.
1 sh Savage at 1095 per foot.
1 sh Savage at 1110 per foot, h 30.
2 shs Belcher at 360 per foot, s 3.
1 sh Belcher at 380 per foot, h 3.
4 shs Crown Point at 1370 per foot, s 3.
4 shs Crown Point at 1375 per foot.
2 shs Empire M. & M. Co. at 200 per sh, s 3
2 shs Empire M. & M. Co. at 200, h 5.
13 shs Empire M & M Co. at 200 per sh, h 10.
61 shs Overman at 73@80 per ft.
60 shs Overman at 77½@82½ per foot, h 30.
25 shs Overman at 74@83 per foot, s 3.
15 shs Imperial at 149½ per share.
20 shs Imperial at 149½ per share, h 3.
6 shs Imperial at 149 per share, s 3.
10 shs Imperial at 153 per share, h 30.
40 shs Confidence at 39½@38½ per share.
5 shs Bullion, at 113 per share, s 10.
20 shs Bullion at 113½@115 per share.
10 shs Bullion at 110 per share, s 3.
5 shs Bullion at 105 per share, s 30.
1 sh Cal Steam Nav Co at 57½ per ct.
$10,000 Cal State 7 ₱ ct Bonds at 84 per cent
$10,000 Legal Tender Notes at 80c, h 30.
Amount of sales.....$136,493 00

Monday, April 16.

540 shs Ophir at 850@860 per foot.
156 shs Ophir at 850@865 per foot, s 3.
60 shs Ophir at 850 per foot, s 5.
12 shs Ophir at 855 per foot, h 3.
60 shs Ophir at 870@875 per foot, h 30.
60 shs Ophir at 850@855 per share, s 30.
120 shs Daney at 15 per foot, h 30.
40 shs Daney at 14 per share, s 3
40 shs Daney at 14 per foot.
14 shs Yellow Jacket at 835@830 per foot.
2 shs Yellow Jacket at 830 per foot, s 3.
5 shs Belcher at 360½@362 per foot.
2 shs Belcher at 372½ per foot, h 30.
4 shs Alpha, G H, at 440 per foot, s 30.
4 shs Alpha, G. H., at 450 per foot.
8 shs Hale & Norcross at 920 per foot, s 3.
1 sh Chollar-Potosi at 362½ per foot.
30 shs Overman at 77½@80 per ft.
25 shs Overman at 81@85 per foot, h 30
10 shs Overman at 80 per foot, s 10.
20 shs Exchequer at 10¼ per share, h 5.
68 shs Exchequer, at 10 per share, s 3.
6 shs Real del Monte at 4 per share.
20 shs Imperial at 150@151 per share.
5 shs Confidence at 38½ per share.
10 shs S F Gas Co at 100 per cent
Amount of sales..... ...$112,875 00

Tuesday, April 17.

348 shs Ophir at 845@870 per foot.
72 shs Ophir at 875@865 per foot, h 30.
36 shs Ophir at 850 per foot, h 5.
12 shs Ophir at 845 per foot, s 3.
8 shs Chollar-Potosi at 362½@337½ per ft.
10 shs Chollar-Potosi at 365@366 pr ft, h 10.
5 shs Chollar-Potosi at 360 per foot, h 5.
5 shs Chollar-Potosi at 365 per foot, h 30.
83 shs Daney at 13¾@14 per foot.
19 shs Yellow Jacket at 840@820 per foot
7 shs Yellow Jacket at 840@850 per ft, h 30
5 shs Yellow Jacket at 820@835 per ft, h 5.
4 shs Yellow Jacket at 830@840 per ft. h 10.
8 shs Yellow Jacket at 825@835 per ft, s 3.
1 sh Yellow Jacket at 830 per foot, h 3.
4 shs Yellow Jacket at 825@820 per ft, s 30
6 shs Hale & Norcross at 920 per foot.
2 shs Hale & Norcross at 920 per ft, h 3.
1 sh Belcher at 360 per foot.
4 shs Empire M & M Co. at 195@192½ pr sh.
10 shs Imperial at 162@165 per share.
5 shs Imperial at 153 per share, h 5.
73 shs Overman at 80½@80 per foot.
10 shs Overman at 82½ per foot, h 10.
5 shs Overman at 80 per ft, s 30.
50 shs Exchequer at 10 per foot, s 3.
25 shs Bullion at 103@105 per share.
35 shs Bullion at 100 per share, s 3.
5 shs Bullion at 105 per share, h 30.
20 shs Confidence at 38 per share.
30 shs Spring Valley W W, at 67 per cent.
AFTERNOON SESSION.
1 shs Yellow Jacket at 830 per foot, h 5.
2 shs Yellow Jacket at 835 per foot, h 30.
1 sh Yellow Jacket at 830 per foot, h 30.
7 shs Yellow Jacket at 820 per foot, h 10.
10 shs Yellow Jacket at 820 per foot.
2 shs Yellow Jacket at 815 per foot.
2 shs Yellow Jacket at 815 per foot.
8 sh Yellow Jacket at 810 per foot, s 30.
11 shs Yellow Jacket at 800 per foot, s 30.
2 shs Yellow Jacket at 810 per foot, h 5.
1 sh Yellow Jacket at 875 per foot, h 30.
5 shs Yellow Jacket at 820 per share, h 6.
2 shs Yellow Jacket at 818 per foot.
24 shs Ophir at 842½ per foot.
12 shs Ophir at 840 per foot, h 6.
43 shs Ophir at 840 per foot, s 3.
48 shs Ophir at 842½ per foot, s 3.
43 shs Ophir at 835 per share.
324 shs Ophir at 840 per foot.
48 shs Ophir at 840 per foot, h 3.
72 shs Ophir at 865 per foot, h 30.
12 shs Ophir at 840 per foot, s 3.
1 sh Crown Point at 356 per foot.
1 shs Savage at 1115 per foot, h 30.
2 shs Savage at 1184 per foot, h 2.
1 sh Savage at 1185 per foot, s 30.
1 sh Savage at 1190 per foot, s 30.
10 shs Imperial at 152½ per share, h 10.
5 shs Imperial at 152½ per share, s 10.
35 shs Exchequer at 10 per share, s 3.
50 shs Exchequer at 10¼ per share.
10 shs Sierra Nevada at 7¾ per share.
5 shs Sierra Nevada at 8 per share.
5 shs Bullion at 102½ per share.
50 shs Spring Valley Water at 67 per sh.
Amount of sales.....$148,320 00

Wednesday, April 18.

2 shs Savage at 1100 per foot.
1 sh Savage at 1100 per foot, s 3.
1 sh Savage at 1110 per foot.
5 shs Chollar-Potosi at 360 per foot, h 30.
25 shs Chollar-Potosi at 350 per foot, s 30.
5 shs Chollar-Potosi at 350 per foot, s 3.
10 shs Chollar-Potosi at 350 per foot.
5 shs Chollar-Potosi at 348 per foot.
5 shs Chollar-Potosi at 351 per foot, h 30.
5 shs Chollar-Potosi at 347 per foot.
5 shs Chollar-Potosi at 347½ per foot, s 30.
2 shs Hale & Norcross at 920 per foot.
2 shs Hale & Norcross at 925 per foot.
2 shs Hale & Norcross at 927½ per foot.
6 shs Hale & Norcross at 930 per foot.
2 shs Hale & Norcross at 950 per sh, h 6.
40 shs Daney at 13 per foot.
160 shs Daney at 13½ per foot.
40 shs Daney at 14 per foot, h 30.
130 shs Daney at 13½ per foot, s 10.
160 shs Daney at 14½ per foot, h 30
14 shs Daney at 15 per foot.
1 sh Yellow Jacket at 830 per foot.
3 shs Yellow Jacket at 835 per foot.
4 shs Yellow Jacket at 820 per foot.
4 shs Yellow Jacket at 820 per foot, s 3.
1 sh Yellow Jacket at 845 per foot, h 30.
36 shs Ophir at 840 per foot.
48 shs Ophir at 837½ per foot, s 3.
24 shs Ophir at 835 per foot, s 3.
36 shs Ophir at 835 per foot.
48 shs Ophir at 832½ per foot.
72 shs Ophir at 835 per foot, h 3.
3 shs Belcher at 355 per foot.
4 shs Alpha, G H, at 435 per foot.
4 shs Alpha, G. H., at 430 per foot, s 30.
4 shs Crown Point at 1360 per foot.
4 shs Ould & Curry at 920 per foot.
4 shs Ould & Curry at 900 per ft, s 30.
30 shs Imperial at 151 per share.
5 shs Imperial at 151 per share, s 10.
5 shs Imperial at 162½ per share, s 10.
5 shs Imperial at 153 per share, s 3.
15 shs Imperial at 153 per share, s 30.
6 shs Imperial at 155 per share.
10 shs Imperial at 164 per share.
10 shs Imperial at 152½ per share.
1 sh Imperial at 152 per share.
20 shs Sierra Nevada at 8 per share.
8 shs Bullion at 102½ per share.
20 shs Calcdonia Tunnel at 4 per share.
25 shs Segregated Belcher at 16 per sh.
10 shs Overman at 75 per share.
10 sds Overman at 77½ per share, h 30.
5 shs Overman at 76 per sh.
40 shs Overman at 77 per sh.
1 shs Overman at 80 per sh.
40 shs Overman at 81 per share, h 30.
15 shs Overman at 78 per share.
10 shs Overman at 78 per ft, h 30.
Amount of sales.....$136,920 00

[The Board voted to hold no session this afternoon, in order to give the members an opportunity to attend the funeral of the unfortunate victims of the late explosion.]

Thursday, April 19.

24 shs Ophir at 820 per foot.
60 shs Ophir at 800 per foot, s 30.
48 shs Ophir at 830 per foot, h 30.
12 shs Ophir at 810 per foot.
12 shs Ophir at 805 per foot.
120 shs Ophir at 800 per foot.
12 shs Ophir at 800 per foot, s 3.
12 shs Ophir at 800 per foot, h 3.
12 shs Ophir at 825 per foot, h 30.
36 shs Ophir at 820 per foot, h 30.
24 shs Ophir at 790 per foot, s 30.
24 shs Ophir at 816 per foot, h 30.
72 shs Ophir at 810 per foot, h 30.
24 shs Ophir at 790 per foot, s 3.
36 shs Ophir at 800 per foot, h 5.
48 shs Ophir at 795 per foot, s 3.
12 shs Ophir at 795 per foot. s 5.
2 shs Savage at 1125 per foot, s 3.
2 shs Savage at 1125 per foot.
2 shs Savage at 1120 per foot.
4 shs Savage at 1116 per foot
1 sh Savage at 1115 per foot, s 10,
5 shs Chollar-Potosi at 342½ pr ft, h 30.
2 shs Chollar-Potosi at 346 per foot, s 30.
17 shs Chollar-Potosi at 350 per foot, h 30.
1 shs Chollar-Potosi at 340 per foot, h 10.
1 sh Chollar-Potosi at 340 per foot.
8 shs Chollar-Potosi at 340 per foot, h 30.
20 shs Daney at 13½ per foot.
40 shs Daney at 14 per foot, h 3.
13 shs Yellow Jacket at 815 per foot.
3 shs Yellow Jacket at 830 per foot, s 30.
1 sh Yellow Jacket at 312½ per foot.
1 sh Yellow Jacket at 805 per foot, s 15.
3 shs Yellow Jacket at 810 per foot.
3 shs Yellow Jacket at 810 per foot, h 3.
12 shs Crown Point at 1365 per foot.
20 shs Crown Point at 1370 per foot.
2 shs Belcher at 350 per foot, h 5.
1 sh Belcher at 350 per foot.
2 shs Belcher at 345 per foot.
1 sh Imperial at 152 per share.
42 shs Imperial at 150 per share, s 30.
40 shs Imperial at 151 per share.
5 shs Imperial at 152 per share, h 30.
15 shs Imperial at 149 per share, s 5.
15 shs Imperial at 149 per share, s 3.
5 shs Imperial at 149 per share.
10 shs Overman at 80 per sh.
10 shs Overman at 80 per sh, s 10.
15 shs Overman at 81 per share.
10 shs Overman at 84 per sh, h 30.
10 shs Overman at 81 per sh, s 10.
5 shs Bullion at 110 per share, s 3.
AFTERNOON SESSION.
48 shs Ophir at 825 per foot.
48 shs Ophir at 815 per foot.
24 shs Ophir at 820 per foot, h 30.
84 shs Ophir at 810 per foot, s 3.
72 shs Ophir at 810 per foot.
84 shs Ophir at 805 per foot.
120 shs Ophir at 800 per foot, s 30.
72 shs Ophir at 710 per foot, h 3.
48 shs Ophir at 807½ per foot.
24 shs Ophir at 825 pr ft, h 30.
12 shs Ophir at 800 per foot, s 3.
60 shs Ophir at 800 per foot.
12 shs Ophir at 795 per foot, s 5.
24 shs Ophir at 870 per foot, h 3.
60 shs Ophir at 795 per foot, s 30.
4 shs Yellow Jacket at 810 per ft
1 sh Yellow Jacket at 805 per foot, s 10.
2 shs Yellow Jacket at 820 per foot, h 30.
3 shs Yellow Jacket at 807½ per foot.
1 sh Yellow Jacket at 805 per foot, s 15.
1 sh Yellow Jacket at 825 per foot, h 30.
2 shs Savage at 1110 per foot.
4 shs Chollar-Potosi at 340 per foot, h 30.
1 sh Chollar-Potosi at 340 per foot, h 5.
6 shs Chollar-Potosi at 343 per foot, h 30.
36 shs Chollar-Potosi at 335@336 per foot.
7 shs Belcher at 340@345 per foot.
8 shs Crown Point at 1360 per foot, s 30.
5 shs Imperial at 143½ per share, s 3.
45 shs Imperial at 148@150 per share.
50 shs Imperial at 149@148 per sh, s 30.
10 shs Exchequer at 10 per share, s 3.
Amount of sales.....$187,384 00

Friday, April 20.

300 shs Ophir at 775@740 per foot.
144 shs Ophir at 740@750 per foot.
168 shs Ophir at 765 per foot.
96 shs Ophir at 765 per foot.
6 shs Savage at 1110@1100 per foot.
28 shs Chollar-Potosi at 307½@330 per foot.
10 shs Chollar-Potosi at 340@320 per ft, h 30.
10 shs Chollar-Potosi at 330@328, s 30
10 shs Chollar-Potosi at 340 per foot, h 3.
63 shs Imperial at 153@152 per share.
35 shs Imperial at 150@150½ per share, s 30
21 shs Yellow Jacket at 795@780 per foot.
9 shs Yellow Jacket at 760 per foot
5 shs Yellow Jacket at 810@770 per ft, h 30
1 sh Yellow Jacket at 750 per foot, s 30.
15 shs Confidence at 35@36 per share.
4 shs Hale & Norcross at 945@950.
19 shs Belcher at 350@340 per foot.
5 shs Bullion at 116 per share.
28 shs Overman at 79 per foot.
75 shs Exchequer 10 per share.
$610,000 U. S. 7 3-10 Bonds at 81½ per cent.
20 shs San Francisco Gas Co at 105 per sh
20 shs Spring Valley W W Co at 67 per ct.
Amount of sales.....$109,624 00

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, April 21, 1866.

The money market presents rather more activity, owing in part to the opening up of trade with the interior, and the inauguration of a number of enterprises requiring the immediate use of considerable capital. Rates of interest are, however, unchanged, and still rule at 1@1¼ ₱ cent. per month in Bank.

Receipts of gold and silver from the mining districts, since the date of our last reference, amounted to $1,850,000, making an aggregate thus far, for the current month, of $2,700,000.

Shipments of treasure from Nevada are increasing, and during the month of April will, probably, exceed those of any former like period since September last.

Bullion is abundant, occasioned mainly by the light requirements for shipments East, and gold bars have been dull this week at 840@850. Silver is also in less request, and bars of average fineness may be quoted at ¾@1¼ ₱ cent. premium.

The deposits of gold and silver at the Branch Mint in this city during the past quarter (ending March 31st) amounted to $3,087,308.04. The gold coinage (mainly double eagles) was 2,549,000, and the silver coined amounted to $206,838. The receipts of gold were, in part, as follows: From California, $1,707,772.63; from Idaho, $338,472; from Montana, $198,574.44, and from Oregon, $131,911.36. From Nevada $164,265.36 was received in silver.

The Mining Share market has exhibited rather less animation since Saturday last, and the aggregate sales are lighter than for some time past. Some stocks have been subjected to a material decline, while others are in better favor and are firmly held at the close. Advices from Nevada are, for the most part, favorable, and a large number of mills are now kept constantly employed.

Crown Point rose to $1,375, ex-dividend, receded to $1,350, rallied to $1,370, and then sold at $1,365. During the week ending 14th instant, 783 tons of ore were extracted. The south drift (main lode) now 290 feet from the north line, and 190 feet south of south incline, continues to look very promising, the body of ore widening and of good quality. More than 3,000 tons of ore will be reduced this month, and the receipts of bullion will probably equal those of March. It is thought that more ore is now disclosed than at any former period in the history of the mine.

Savage has been well maintained, and some 40 feet were dealt in, advancing from $1,095 to $1,120, and selling yesterday at $1,110@1,100. During the week ending 14th instant, 266 tons of ore were hoisted to the surface, as follows: 28½ tons first-class, from the old North Potosi chimney, valued at $250 per ton; 186 tons, 2d-class, valued at $35 per ton, and 51 tons, 3d-class, at $20 per ton. In the upper levels the reserves left from former workings still contain a small amount of fair ore. A small opening was made last week in the 6th level, but the drifts have now reached the best ore seam lying to the east, and a large quantity of ore will soon be taken from the mine. Work has been commenced upon the main shaft from the 6th level for a new station 100 feet deeper.

Gould & Curry met with small sales, receding to 900, seller 30, and closing at $925 asked. There is no new feature in this claim. Drifting continues vigorously north and south from the 4th station. Receipts of bullion during the first half of this month exceeded $80,000, and the company's mill is reducing an average of about 100 tons of ore per day.

Hale & Norcross has been sold within a range of 920@930, closing at $945@950. Some 1,550 tons of ore were crushed last month, yielding $64,092, or an average of $41.35 per ton. The company are now employing three mills, and hoisting 50 to 60 tons of ore per day. The 7th level is said to be looking as well as ever. The incline being sunk from that level is prospecting at the rate of 2½ feet per day.

Yellow Jacket rose from $810 to $850, receded to $810, and closed yesterday at $760@770. The entire cost of crushing 2,317 tons of ore at the company's mill last month was $11 per ton. During the week ending April 2d, 1,142 tons were extracted. The lower level, south mine, is said to disclose a body of ore 30 to 35 feet wide.

Ophir has attracted considerable attention, and nearly 400 feet were dealt in, advancing from $845 to $865, receding to $792½, rallying to $825, and selling yesterday at $775@765. Latest telegraphic advices state that the mine continues to present a flattering appearance, and that the body of ore in the 9th gallery is widening and improving in quality as ascended upon. Recent returns from different mills will, it is thought, show an average of $90 per ton for most of the ore crushed. Receipts of bullion since 1st inst., amounted to $73,000.

Chollar-Potosi has been in less request, and about 250 feet were sold, steadily declining from $365 to $307½, and closing at $305@314. In drifting south from the lower stope of the Bajazette ground, a body of good ore, nearly eight feet wide, has been met with. There is no improvement to note in any other portion of the mine. The drift from the new shaft is now in some 240 feet. During the week ending 13th inst., 913½ tons of ore were sent to Custom mills.

Alpha is dull and inactive, and small sales have been made at $450 @425 per foot, closing at $425 asked. The debt of the company at this time exceeds $90,000. Belcher declined from $370 to $342, and sold yesterday at $340@345.

Empire Mill and Mining receded from 200 to 193, and closes at about $200 asked.

Imperial has been very steadily maintained this week, advancing from $149 to $155, receding to $149, and selling yesterday at $150@148. The first clean up of the Gold Hill mill, and the second of the Rock Point mill, amounts to $24,267, making the aggregate for the first half of the month $36,726. This is a decided improvement over last month.

Bullion declined from $115 to $102½, then sold at $116, assessment delinquent, and closed at $115 bid.

Overman rose from $74 to $85, buyer 30, receded to $75, rallied to $80, and sold yesterday at $79@78.

Confidence was dealt in at $39½@38, closing at $36.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinqnent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment, Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT.	DAY ADV'G DELINQ'T LIST.	OF SALE.
Arizona Consolidated	Annual meeting May 7*		
Assurance, Monterey co, Cal, 25c		May 11	May 29*
Alpha, Gold Hill, Storey co , Nev., $30		Mar 24	April 24
Altaville, $1.25		April 14	April 30
Adams' Petroleum, $5		April 30	May 19
Astor, Gold Hill, Nev	Annual meeting April 30		
Beard & Seaver, Lander co., Nev., 50c		April 14	May 1*
Batopilas, Chihuaha, Mex., 25c		May 10	May 28*
Belcher, $50		April 30	May 30
Belcher, Baldwin & Abernathie Co, $20		April 30	May 30
Baltimore American, Storey co., Nev., $2.		April 12	April 28
Bullion	$10 00		
Barreteros, Sonaloa, Mex., $5		May 10	May 28
Cosala, $1		April 26	May 12*
Capital, Lander co., Nev., $5		April 13	April 23
Chipiunca, Sonora, Mex., $5		April 28	May 12
Confidence, Storey co., Nev., $25		May 4	May 18
Capitola	Meeting April 30		
Daney, 50c		May 12	June 9
Evoca Consolidated Copper	Annual meeting May 24*		
Eagle Quartz, Amador co., Cal., $1		April 7	April 25*
Emerald Copper, $1		Feb 10	Feb 24
Eureka, Plumas Co.	Meeting May 1		
Exchequer, $2		April 30	May 16
Geo. Washington, Alpino co., Cal., $1.00		May 12	May 29*
Harker, Lander co., Nev., 50c		April 14	May 1*
Hanscom, Copper, Del Norte co., 15c		May 1	May 21*
Hale & Norcross	Dividend—payable April 12		
I. X. L., $1.50		May 17	June 7*
Jefferson Lander co., Nev., 50c		April 14	April 30*
Jeffrey Oil, Humboldt co., Cal., 50c		April 17	April 28
Kentucky, $1		May 8	May 30*
Keokuk, Contra Costa co., Cal., 10c		May 18	June 4*
Keystone	Annual meeting May 2		
Lady Franklin, Alpino co., Cal., 25c		May 7	June 5*
Lady Bell, 10c		April 14	April 28*
Lady Bryan, Storey co., Nev., $1		April 9	April 21
La Trobe T & M co., Storey co., Nev., $1		April 10	April 28
La Victoire, $1		May 4	May 21
Madison, Lander co., Nev , 50c		April 14	April 30*
Monitor, Lander co., Nev., 75c		April 14	April 30*
Mosquito, Calaveras, Cal., $5		April 7	April 28*
Moss Ledge co., $25		May 1	May 16
North Star, Lander co., Nev , $25		May 14	June 6*
Oregon, Lander co., Nev., 25c		April 14	May 1*
Oxford Reta, Esmeralda, Nev., 50c		April 7	April 25*
Old Colony, Austin, Nev., $1		April 14	April 28*
Open Sesame, 50		April 20	May 2
Pride of the East, 50c		April 14	April 27*
Providence, Nevada co., Cal., $1		Mar 17	Mar 31*
Refugio, Chihuahoa, Mex., $2½		May 21	June 6*
Refugio, Mex		Meeting April 26	
Silver Cloud, Lander co., Nev., 50c		April 14	April 27*
Santa Cruz 50c		April 14	April 28*
Sweet Vengeance, $1		May 11	May 30
Siskiyou, $1.50		April 23	May 25
Sophia, Tuolumne county, $7		April 26	May 11
Shoshone, Lander co., Nev., $1		April 9	April 23
Salambo Copper, $1		May 8	May 29
Seaton	Sale March 30		
Stephen A. Douglas, Lander co., Nev	Meeting May 2		
Sierra Nevada, Storey co, Nev., $4		May 7	June 6
United States, Storey co., Nev., 50c		May 25	June 13*

*Those marked with an asterisk (*) are advertised in this Journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 81¼	$ 82
Gov. Legal Tender Notes	79¼	79½
State Bonds, 7 ₱ cent	84	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	71	..
San Francisco Bonds, 1858, 6 ₱ cent	89	..
Sacramento City Bonds, 6 ₱ cent	20	30
Sacramento County Bonds, 6 ₱ cent	58	50
Marysville Bonds, 10 ₱ cent	75	100
Stockton Bonds, 10 ₱ cent	80	65
Yoba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	75	73
California Navigation Co	55	57
State Telegraph Stock	32	35
San Francisco Gas Co	97	100
Sacramento Gas Co	..	75
Spring Valley Water Co	88	70
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	50	..
Central Railroad Co	70	..
North Beach and Mission	60¼	61
MINING STOCKS.		
Ophir	$ 755	$ 750
Gould & Curry	000	025
Empire M. & M. Co	105	195
Savage	1080	1100
Chollar-Potosi	305	310
Hale & Norcross	045	950
White & Murphy	....	....
Sierra Nevada	8	0
Yellow Jacket	750	755
Overman	70	80
Crown Point	1385	1370
Antelope	....	....
Esmeralda	1	5
Real del Monte	....	....
Bullion, G. H.	113	114
Buckeye	....	....
Dick Sides	....	....
Imperial	147	148
Alpha	450	460

ITS correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco. [Nye County News.

REMINGTONS'
ARMY AND NAVY REVOLVER,

THE REMINGTON REVOLVER

Has been approved by the United States Board of Ordnance, and has so satisfactorily met the requirements of the Government, not only in the field, but in the official tests and examinations made by prominent officers of the Ordnance Department, that it stands at once the most popular, serviceable and approved arm of the kind in use. Upwards of 12,000 have been supplied to the Government within the past four years, for the land and naval service, furnishing ample evidence of the estimation in which the arms are held.

Simple and symmetrical in its entire construction, securely strong, of most modern improvement in mechanism and material; its unequaled range and penetration, together with its durability, are points in its favor now well known, and which challenge a comparison with any other pistol of the kind made in this country or in Europe.

The superior strength and capacity of the arm for constant and long use is apparent from the fact that the entire frame is constructed of a single piece of metal, thus preventing the extension of some portions of the frame, from the effect of firing—a serious defect in many pistols—in which the frame is composed of two or more parts.

The frame of the Remington Revolver furnishing a TOP STRAP or support above the cylinder, served to protect the base pin (on which the cylinder revolves) from any undue strain to which it would otherwise be subjected, and which would immediately render the line of fire from the cylinder to the barrel imperfect, thus destroying force and accuracy.

Another advantageous feature of the arm is the means afforded for the instantaneous removal of the cylinder from the frame. This not only facilitates the cleaning of the pistol, but by the quick adjustment of the cylinder, one pistol can be made as effectual as two—and, considering the difference of weight, it is far preferable—by simply possessing a spare cylinder loaded and capped to instantly replace the exhausted one.

The above is a general summary of the points of peculiar merit in the Remington Revolver which a trial of the arm is only needed to attest. For sale at Manufacturers' rates, by

ALBERT E. CRANE, Manufacturers' Agent,
310 Washington Street, up stairs.

16v12

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 50 @ 6 75
Do Superfine	6 00 @ 6 50
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	1 75 @ 2 00
Oats, choice, ₱ 100 lb	2 00 @ 2 10
Barley, ₱ 100 lb	85 @ 1 00
Beans, ₱ 100 lb	4 50 @ 5 00
Potatoes, ₱ 100 lb	1 05 @ 1 15
Hay, ₱ ton	10 00 @15 00
Live Oak Wood, ₱ cord	8 00 @10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ 9
Hogs, dressed, ₱ lb	12 @ 13
Groceries, Etc.	
Sugar, crushed, ₱ lb	16 @ 18¼
Do China	10 @ 12½
Coffee, Costa Rica, ₱ lb	— @ 24
Do Rio	23½@ 24
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	8 @ 10
China do	7 @ 8
Coal Oil, ₱ gal	75 @ 80
Candles, ₱ lb	22 @ 24
Ranch Butter, ₱ lb	37½@ 40
Isthmus do	35 @ —
Cheese, California, ₱ lb	18 @ 20
Eggs, ₱ doz	40 @ —
Lard, ₱ lb	20 @ 21
Ham and Bacon, ₱ lb	— @ 22½
Shoulders	20 @ 22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45@ 50
do pickled ₱ lb	38@ 40
do Oregon	35@ —
do New York, ₱ lb	50@ —
Cheese, ₱ lb	25@ —
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	—@ 50
Lard, ₱ lb	25@ —
Hams and Bacon, ₱ lb	24@ 28
Cranberries, ₱ gal	75@ 1 00
Potatoes, sweet, ₱ lb	—@ —
do Irish, ₱ lb	1@ 1½
Tomatoes, ₱ lb	@ —
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	3@ 8
Pears, table ₱ lb	8@ 25
Plums, dried, ₱ lb	20@ 22
Peaches, dried, ₱ lb	16@ —
Oranges, ₱ doz	50@ —
Lemons, ₱ doz	75@ —
Chickens, apiece	87@ 1 12
Soap—Pale & C. O	10@ 12
Castile	14@ 15

San Francisco Metal Market,

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, March 17, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 80c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@ 1¾c ₱ lb; Plate 1¾c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	55 @60
American Pig ₱ ton	50 @55
Refined Bar, bad assortment, ₱ lb	@—
Refined Bar, good assortment, ₱ lb	3¼@—
Boiler No. 1 to 4	4 @ 5
Plate No. 5 to 9	4½@ 8
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—
COPPER.—Duty: Sheathing 3¼c ₱ lb; Pig & Bar 2½c ₱ lb	
Sheathing ₱ lb	34 @36
Sheathing, Old	20 @30
Sheathing, Yellow	30 @32
Sheathing, Old Yellow	12 @13
Bolts	13 @16
Composition Nails	30 @32
TIN PLATES.—Duty: 2¾c ₱ lb.	
Plates, Charcoal, IX ₱ box	16 @18
Plates, I C Charcoal	14 @15
Roofing Plates	12 @13
Banca Tin Slabs, ₱ lb	30 @35
STEEL.—English Cast Steel, ₱ lb	12½@18
QUICK-SILVER.—Per lb	— @65
For export	55 @—
ZINC.—Sheets ₱ lb	9½@10
LEAD.—Pig ₱ lb	8 @—
Sheet	10 @12
Pipe	10 @12
Bar	10 @11
BORAX—California, ₱ lb	20 @23

WORDS FOR MINERS.—The Gold Hill *Daily News*, Nevada—a medium of good authority—saith thus:

The MINING AND SCIENTIFIC PRESS is a weekly journal, published in San Francisco, which is entitled to the subscription patronage of every practical miner in Nevada, and every person interested in Nevada or California mining operations. It is a well gotten up sixteen-page quarto; and its reading would tend vastly to the particular "post-log" and general enlightenment of our sort of working folks. Subscribe for it. Five dollars a year; three dollars for six months. It should have an agency in Virginia and Gold Hill; but we see none advertised in its columns. Every new improvement in mining implements and operations are fully described by words and illustrated by wood cuts in this excellent publication. A specimen number can be seen at our office.

BRANNAN HOUSE,
(Formerly Vernon,)
J street, between Front and Second streets,
SACRAMENTO.
FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m **MRS. J. DUNN, Proprietress.**

INTERNATIONAL HOTEL,
K Street, between Third and Fourth,
SACRAMENTO.
IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.
Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

WHAT CHEER HOUSE,
SACRAMENTO.
Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m **A. J. SENATZ, Proprietor.**

The Excelsior Hat
—OF—
SAN FRANCISCO.
Paris, New York and London Styles
For Spring and Summer, 1866,
Will be introduced
SATURDAY.....MARCH 3
—AT—
MEUSSDORFFER'S
Hat Manufactories,
Nos. 635 and 637 Commercial street.....San Francisco
No. 125 J street.....Sacramento
Corner D and Second streets.....Marysville
OUR STYLE IN MOLESKIN, for this season, is, we feel confident, the SUPERLATIVE OF ELEGANCE AND FINISH; our MERINO PINAUD and ST. CLOUD the most successful result of Parisian taste.
Especial attention also deserve our
CHELSEA
CHESTER,
CRESCENT,
NEWPORT,
DERBY and
CLARENDON RESORTE.
☞ Call and see them. 9v12-3m

Mining and Scientific Press
JOB PRINTING OFFICE,
No. 505 Clay street, corner of Sansome.

CERTIFICATES
—OF—
STOCK
—FOR—
MINING
—AND—
PETROLEUM
Companies
Neatly Printed.

Stock Certificates of all kinds embellished with wood cuts and electrotype engravings. We devote special attention to the execution of all kinds of work required by Mining Companies, Machinists and Manufacturers.

PREMIUMS.

1st Premium, at Sacramento Fair.....1862
1st Premium, at S. F. Bay District....1862
1st Premium at Sacramento.....1863
1st Premium, at San Francisco.....1864
1st Premium, for Cordials.....1864
1st Premium, for Hygienic Bitters....1864
Awarded to
V. SQUARZA.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLATure of the State of California, entitled "An Act concerning Corporations," passed April 22, 1858, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS.

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire	$12,973,949
Marine	484,493

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	O. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm Hooper,	Lloyd Tevis,
Anson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs.	A. B. Forbes,	David Stern.

Frederick Billings, J. G. Kellogg.

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

By Authority of the State of California,
Having fully Complied with the Law by a Deposit of $525,000 Bonds of the State of California and the United States.
BIGELOW & BROTHER,
General Insurance Agents.
Fire, Marine, and Life Insurance.
CAPITAL REPRESENTED $15,000,000.
California Deposit, $525,000.
OFFICES---N. W. corner of Montgomery and Sacramento streets.
COMPANIES REPRESENTED:

HOME INSURANCE CO. OF N. Y., Assets	$3,700,000
HARTFORD FIRE INSURANCE CO., Assets	1,500,000
PHENIX INSURANCE CO., N. Y., Assets	1,000,000
ARCTIC INSURANCE CO., N. Y., Assets	700 000
WASHINGTON INSURANCE CO., N. Y., Assets	700,000
NEW YORK ACCIDENTAL INS. CO., Assets	260,000
CONNECTICUT MUTUAL LIFE INS. CO., Assets	8,000,000

POLICIES issued on Freights, Cargoes and Treasure from and to all parts of the World.

FIRE INSURANCE POLICIES issued on all kinds of Insurable Property in Country or City.

ACCIDENTAL POLICIES issued on the most favorable terms, insuring the payment of stated sums in the event of death, or a fixed Weekly Compensation for Total Disability for the term of twenty-six weeks for any one accident. These Policies cover all kinds of Accidents, and are issued for single trips or for the year.

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Mining Summary.

CALIFORNIA.

The production of both the placer and quartz mines of California is progressing very satisfactorily at the present time. The abundance of water has imparted unusual activity to the former, and enabled work in the "dry diggings" to be continued much later in the season than usual. Many new placers have been discovered, while numerous old ones have been worked over with large profit. Perhaps, however, the most important improvement in placer mining may be found in the increased attention which is being given to what are known as "cement diggings." It has recently been discovered that a large amount of "cement," which has hitherto been considered worthless, will pay well when subjected to a mill process. One in particular, at French Coral, has been kept constantly and profitably at work for the past two or three months, upon cement that had been previously thrown away as worthless. Quite a number of new mills for working this class of gravel have been put up within a few months past, and many others are in contemplation.

In the quartz districts the promises held out last autumn have been more than realized, and the yield of bullion from this source is constantly increasing. The heavy experiments in deep mining about Grass Valley are resulting most favorably, and present a most strikingly favorable contrast with similar operations in the silver regions to the eastward of the Sierra Nevada. As the condition of the mines always reacts upon all other developments of industry in the State, we may reasonably look with much confidence for a most successful business season during the current spring and coming summer and fall. We append our usual summary for the week:

The Shasta *Courier*, of April 14th, learns, on tolerably good authority, that two men, engaged in working a claim some two or three miles from the town of Shasta, have been realizing for the past six or eight weeks one pound of gold dust each per day from their claim. It is said they are working on a ledge, and find the gold in seams about an inch wide, imbedded in quartz. They take it out, pound the mass in a hand mortar, and amalgamate the gold with quicksilver. It is further said, that the sum total of the earnings of these men amounts in the aggregate to over $13,000. The *Courier* is promised further revelations.

Plumas County.—The only item of interest for this county which we have noticed the past week is the statement in the Quincy *Union* that Major Love has recently discovered a rich copper ledge in the canon of Indian Creek, and about three miles below Indian Valley, which prospects very rich.

Sierra County.—A new discovery of rich gold bearing quartz is reported in the Downieville *Messenger*, about one mile northeast of town. It is plentifully spangled with free gold James Meserve is said to be the lucky discoverer.

A correspondent of the *Messenger*, writing from Howland Flat, says that considerable dirt has been run off there during the winter in the hydraulic claim; but the profits are not great, as the attending expenses were much increased on account of the unsteadiness of the work through the weather's ever-changing freaks. The winter season, though not causing the suspension of work in tunnel mining, is always sufficient to make a difference very perceptible in the profits. Our tunnel claims have more generally paid well this winter than at any time heretofore, and with the loss of snow, the prospects of a general gold yield beyond other years, is decidedly good.

Comparatively speaking, our hydraulic mines are "played out." They now form but a small proportion of the mining of this place and vicinity. At Rabbit Point and Chandlerville, however, there are some good claims. The Campbell boys and Snow claims stand first as paying ones.

The creek or tailing claims form an important branch in mining here, and will be extensively worked the present summer, with a very good prospect of success. The high waters of last fall and winter have washed away large quantities of tailings that have laid uncovered since '61, and left the beds of creeks and ravines exposed, so as to ensure profitable working.

The same correspondent thinks that economy in mining is very generally overlooked there, and many disastrous failures must be entirely attributed to this cause. He can scarcely recall to mind a claim wherein there has not been a wanton and wholesale butchery of ground, and valuable rich dirt been made to yield nothing above expenses. Still, some in opening claims are loth to adopt any other than the "good old way" and plan of working. To remedy this evil a county convention of miners is suggested to compare notes, and to discuss the modes of working such claims as are found there, from a practical point of view. The writer thinks that local miners' conventions would be much more profitable than State or national conventions. By free conference, laws governing mining might be adopted to suit each locality, and still be so general and plain as to obviate greatly costly and injurious litigation in the future.

Placer County.—The Auburn *Stars and Stripes* says that the Minerilla quartz claim in Baltimore Ravine, near Auburn, owned by Messrs. Mallett and Havey, is one of the best in the district. The ledge is about a foot in width, and the rock taken from a shaft sunk on the ledge to the depth of thirty feet shows considerable free gold. Five tons of the rock taken from near the surface, and crushed in an arastra, yielded over an ounce of gold to the ton, while a good prospect was obtained from the tailings. They are now taking out rock which they believe to be much richer than that which they crushed. Messrs. Mallett & Havey are now negotiating for a mill, which they design erecting upon the ledge, and which no doubt will prove a remunerative enterprise to them. They are also about commencing a tunnel to strike the ledge below the bottom of the shaft—a work which will greatly facilitate the getting out of rock.

Calaveras County.—A rich lode of gold-bearing quartz was recently discovered near San Andreas by a Mexican in the employ of B. K. Thorn and Wm. Irvine. The lode runs across Willow Creek, near a point where, in early days, gold was taken out in pound nuggets. The discovery created quite an excitement among the miners of San Andreas.

Tuolumne County.—A rich pocket of quartz is reported to have been found in the city of Sonora, Tuolumne county.

Amador County.—The Belding mine, located about ten miles southeast of Volcano, according to the Amador *Ledger*, is producing a large amount of gold, considering the facilities for crushing the rock. They have a little mill of five stamps, and with this they are crushing from four to five tons of rock per day, which yields, on an average, one hundred and ten dollars to the ton.

A correspondent from Volcano writes to the *Ledger* that quartz mining in that vicinity is constantly improving, and that another mill will soon be put up there by the Sorocca Brothers and McLain.

The Golden Gate, owned by Mr. Hurd, is being pushed ahead with vigor under his own supervision. The mill is driven for the present by an overshot wheel thirty-five feet in diameter. It is a good one, and contains two of Hendy's sulphuret concentrators. A 40 horse power engine has just been erected, which will be put in operation as soon as the water fails. They are now crushing fifteen tons of rock per day, which pays from $20 to $40 per ton.

Mariposa County.—Henry & Co.'s smelting works on the Lone Tree vein at James' ranch, are turning out copper pretty rapidly. One hundred and eighty bars were smelted between Sunday morning and Tuesday night.

The Mariposa *Gazette* of April 7th says "a great many tons of pure copper have been smelted within the last few months at the Chowchilla copper mines, and that the veins increase in width and quality as they go down. The vein at Buchanan Hollow is five feet thick, and of the richest carbonates. Thursday last, Mr. Haskell operated with his smelting works twenty-seven hours, and the product of copper, in pigs, during that time, was *two tons and a half*. We doubt whether similar results can be shown since the organization of the State."

Tulare County.—A correspondent of the Visalia *Delta* says that the Long Tom lode, which was originally but two and a half feet wide, is now, at the depth of 140 feet, about *seven feet wide*, has paid richly all the way down, and now averages across the entire seven feet, *seventy dollars per ton*. The new mill is working finely, and crushing regularly about one hundred tons per week. Other lodes are being prospected here, with apparently equally good indications, and two or three mills might now be erected to advantage.

George D. Roberts & Co., the proprietors of this lode, may be set down as among the most fortunate quartz operators on the coast. Ex-Governor Wm. Bigler, of Pennsylvania, and J. C. Birdseye, of Nevada City, are now putting up a 20-stamp mill, W. W. Boston, of this place, having the contract for the work.

Five additional quartz mills are being erected in the Clear Creek mining district.

Nevada County.—William N. Mitchell of the Wisconsin Hotel, Grass Valley, recently purchased a two and three-quarters interest in the Stockbridge mine, paying therefor eleven thousand eight hundred dollars. The Stockbridge is the continuation of the famous Massachusetts Hill lead, which is considered one of the most valuable quartz mines in the State.

We learn from the Grass Valley *Union* that the company owning the Mohawk claim, a short distance from Larimer's mill, are running a tunnel to strike their lode. The proprietors are C. C. Smith of the Exchange Hotel, Whitney, Ross, Larimer and others. This is said to be one of the most promising of the recent locations in that neighborhood.

The Grass Valley *National* gives some interesting quartz items from the town of Rough & Ready: On Thursday of last week, a crushing of seven tons of rock from the Ault & McCauley ledge was had, which yielded thirteen dollars to the ton—the rock being taken from a depth of twelve feet from the surface. A few days since a small crushing of rock taken from the Washington claim, on Posey Ravine, at a depth of thirty feet from the surface, yielded twenty dollars to the ton. A crushing from another ledge, the name of which we have not heard, yielded fourteen dollars to the ton. Several new discoveries have been made, which pay from five to nine dollars per ton, almost from the surface; in many cases pay rock being found at depths varying from five to ten feet.

We learn from the Nevada *Gazette* that a new and promising discovery has recently been made by Mr. H. Southard, a short distance above the Star Spangled Banner.

Some thirty or more tons of rock, from the northerly extension of the Star Spangled Banner, crushed recently at Stile's mill, yielded a little over eighteen dollars a ton. This is considered a good yield, being sufficient to pay a fair profit, with the prospect of striking better rock at a greater depth. The rock was taken from a shaft about eight hundred feet north of the Banner works. The extension is owned by Tisdale and Stiles. The southerly extension of the ledge has never been found.

A third extension northerly of 1,500 feet, has been taken up by Messrs. Tisdale and Niles of Nevada, and Hallidie and others of this city.

Heughs & Thom, proprietors of the Nevada Foundry, are manufacturing an engine and other machinery, for hoisting and pumping purposes, to be erected on the Barrington ledge, at Willow Valley. The work of putting up the machinery on the ledge will be commenced in a few days.

ESMERALDA, NEVADA.

The Esmeralda *Union* of April 7th, says that the Golden Age & Empire company have resumed work on their deep shaft on Last Chance Hill and intend to prosecute the work vigorously till a depth of five or six hundred feet has been attained. As soon as the machinery is put up, Mr. Benson, the Superintendent, will put on as large a force of men as he can find room for in order to push the work ahead with all possible speed. The finances of the company are in good condition. The sinking of this shaft and the running of a few side drifts from it, will give the mines of Last Chance Hill a more thorough test than they have ever had before.

On the 30th ult., the Baldy mining district was organized by the adoption of a code of mining laws and the election of T. N. Brown, Recorder. The mines of this new district were lately discovered and located about twenty-five miles almost east of Aurora. Wood is abundant in the vicinity of the mines, and water can be easily obtained by digging. A New York company has already located several claims, which they intend soon to commence developing in an energetic manner. Specimens taken principally from the croppings of three claims—the Mitchell, Constitution and Golden Fleece—show considerable quantities of free gold, and appear to be rich in silver also. One of the ledges is over fifty feet in width. These mines have been so recently discovered that very little is known of them yet, but from the specimens shown us we think they will prove to be astonishingly rich.

Mr. M. DeKay had two and a half tons of quartz crushed at Poor's mill on the 4th inst., which yielded the handsome sum of $1,016. The rock was taken from a rich spot in a small lead on Middle Hill.

HUMBOLDT.

Elzy, working the Monroe Series, informs the *Register* that he has just received the crude bullion from 5¾ tons of quartz worked at Holt's mill. As nearly as they can judge before melting, the yield is about $800 to the ton—which is better than—well, better than any of *our* mines ever panned out. Elzy is still sinking, taking out rich quartz; and Tom Rule and other worthy boys have got the same ledge in an extension claim.

The boys continue stripping Ledge No. 1 of the Silver Bullion series, prepartory to sinking. Parkinson brought up, Tuesday, April 3d, samples of very rich rock from it.

VIRGINIA CITY AND VICINITY.

The prospecting season seems to have commenced in Washoe. Numerous prospecting parties appear to be starting out for the various districts already known, and to look for new ones. Work at the mills and upon the mines is unusually active at the present time, and things generally wear a healthy aspect. From the Crown Point, Yellow Jacket, Imperial and other prominent mines at Gold Hill, very rich ore is now being taken out, and the supply of the article is said to be decidedly on the increase.

Mining operations about Virginia City are also progressing favorably. The value of the bullion shipped from the office of Wells, Fargo & Co., at Virginia City for the week ending April 15th, consisted of sixty-six bars, weighing 4,518 pounds, and valued at $117,796.

We have nothing especially new from the Ophir for the past week. The Sierra Nevada company are progressing finely with their new shaft, having their engine and hoisting works in full operation. The new shaft is some 300 yards east of the old works.

The main shaft of the Challenge mine is being sunk deeper in order to get more fully at the rich bodies of ore known to exist below the lower levels. The shaft is now a little over 600 feet deep, and Lem Colbath, the efficient Superintendent, informs the *Enterprise* that it is his intention to sink to the depth of 750 feet, which will be considerably below any depth yet attained in the mine. Meanwhile, ore enough is being hoisted from the mine to keep the Comet mill running steadily.

Mr. Osborne, Recorder of the Truckee district, is sanguine that New Truckee will prove one of the richest districts in the State. Water is scarce in the immediate vicinity of the mines, but an artesian well is being bored, and it is thought a good supply will soon be obtained.

We learn from the *Enterprise* that the Connecticut & Nevada mining company of Mountain Wells district, J. S. H. Hall Superintendent started up their 10 stamp mill on the 13th instant. The mill is in the town of Averill, about three miles east of La Plata. It is working rock from a lead found by the company in running a tunnel for the Satellite lead. The ore assays from $250 to $350 per ton, and the lead, from wall to wall, is about fourteen feet defined. The Satellite tunnel is now in a distance of 750 feet, and it is thought that by running 150 feet further the lead will be struck. The croppings of the lead are about six feet in width, and prospects in gold and silver about $80 per ton. The company own a number of leads in the vicinity of their mill which they are developing.

Of the other claims in this company, the Silver Spoon has a shaft down 200 feet, and are taking out ore from a 9 foot lode. The Washington has a tunnel in 250 feet. The affairs of the company are said to be in a flourishing condition, and now that they have got their mill started they will begin to get back the coin expended in opening their mines.

From the Kearsarge, Mr. J. H. Mills reports to the *Enterprise* that the mill of A. B. Paul is nearly ready to start, and will commence crushing ore from the famous Kearsarge mine at once. The Kearsarge company are busily at work developing their valuable mine. Some ten tons of the ore are on the way to be tested at Dall's mill, Washoe Valley. Mr. Mills thinks Kearsarge is one of the richest districts, if not the richest yet discovered. Among the rich and promising ledges he mentions the Giant, which may prove to be the richest of all. The old Kearsarge, though, is the only ledge where any work of consequence is being carried on. Over $20,000 have been expended on this noted mine, and the whole is owned by citizens of Gold Hill, all of whom are sanguine of their claim yielding them rich returns.

Denominationalism Extraordinary.—While urging the united efforts of Christians of every name to reach and rescue the neglected masses of our country, one of the speakers at the convention in Cleveland related an anecdote that showed that the word 'denomination' was not restricted to its theological meaning. A western farmer who wished to invest the accumulations of his industry in U. S. securities, went to Jay Cooke's office to procure the treasury notes. The clerk inquired what *denomination* he would have them in. Having never heard that word used except to distinguish the religious sects, he, after a little deliberation, replied, "Well, you may give me part in Old School Presbyterian to please the old lady, but give me the heft on't in Free-will Baptist."

The water that flows from a spring does not congeal in winter. And those sentiments of friendship which flow from the heart cannot be frozen in adversity.

THE RISE AND FALL OF CHIVALRY.

Previous to the days of cheap printing and "yellow covered literature," the stories and romances of knight-errantry were generally among the first reading books to find their way into the hands of young men and young ladies. Whether the access of the more modern class of light reading is a loss or gain, may be difficult to determine, where so little of positive value is to be found in either. The general impressions left upon the mind, after reading the romances founded upon the events and condition of society in the middle ages, has ever appeared to us less injurious than those derived from the more modern class of light literature. Without, however, discussing the merits of either, we have prepared for the readers of the COMPANION a brief synopsis of the rise and fall of chivalry, which cannot fail to interest many, and may be valuable, as a correct outline of a most interesting portion of the social history of modern times:

Chivalry had its origin about 500 years after the birth of Christ, and during the decline of the Roman Empire. The northern and western countries of Europe were, at that time, almost destitute of national government. Whatever existed of such power was concentrated in numerous chiefs, more or less powerful as each one could enforce his power over the inhabitants around him. Sometimes these chiefs would combine for the accomplishment of a common object; but ordinarily they were hostile to one another, and constantly waging little petty wars one with the other.

In such a state of things the rights of the humbler portions of society were very little looked after; and the individuals of that class were exposed to the hostile attacks or gross impositions from whatever assailant might choose to manifest any unfriendly disposition toward them. As the power of the Roman Empire gradually grew weaker, this condition of things grew more and more alarming; until the inhabitants of those countries seemed about to relapse into the barbarism from which the civilization of the Romans had raised them. The church made vain efforts to stay the downward progress, but it was too much degenerated of itself to stop the evil which was threatening the very existence of society.

But ere the last spark of generosity and sense of right was crushed under the weight of passion and selfishness, the dawning of chivalry made its appearance, and formed a crude ideal of heroism; combining valor, justice, loyalty, modesty and courtesy.

The term chivalry was derived from the French *cheval*, a horse; from the fact that the chivalry were mounted men.

The term knight was originally applied to boys or servants. The chivalry became the servants of the innocent and oppressed; hence those who went forth on chivalric errands were termed knights. This privilege was granted only to young men of fortune or noble parentage. The masses were not allowed to carry arms. A knight was now transferred from a servant or menial to a mounted warrior—a man of rank.

At first the knights confined themselves to their own localities, and employed their time in redressing wrongs and preserving the peace. They established a sort of independent mounted police in time of peace; tendering their services to their acknowledged chiefs in time of war. They were also much in attendance upon the person and at the courts of their chiefs.

They were very fond of adventure, especially when accompanied with daring and danger; this disposition gradually led them to traverse the country far and near in search of it. They set forth on errands generally for redressing wrongs and enforcing rights; but often for the fulfillment of some vow of religion or love. These wandering knights were called "knights-errant." They were everywhere welcomed to the castles of the nobles, where they were usually entertained with banquets, and where tournaments were often given, wherein they might display their valor and skill.

This roving disposition soon led to degeneracy, and the justice at first administered by this instrumentality declined from its early purity to that of the rudest description. The power which was originally organized to redress wrongs, gradually became a most powerful agent in the infliction of wrong, and the knightly castles soon became dungeons for the incarceration of oppressed and innocent knights and ladies who chanced to incur the displeasure of the more powerful of their class.

With the revival of letters came another change, and this time upon a grander basis. The more cool and dispassionate of the nobles united in putting a stop to rampant chivalry, which was generally compelled to give way before the light of reason and education; until the reign of law became supreme, and the civil magistrate took the place of the mailed champion of right. The last spark of chivalry was finally extinguished by the ridicule heaped upon it by Cervantes, in his inimitable volumes of Don Quixote.

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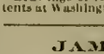

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The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

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Mining and Scientific Press.

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O. W. M. SMITH. W. B. EWER. A. T. DEWEY.

DEWEY & CO., Publishers.

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It Is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:

Saturday Morning, April 21, 1866.

INAUGURATION OF THE STATUE OF LINCOLN.—The statue of Lincoln, in front of the Lincoln School House, was inaugurated according to notice, on Saturday last. The ceremonies were witnessed by a large concourse of people. Several prominent speakers were introduced, whose remarks were fitting for the occasion, and listened to with much interest by all present. The opening commenced with the unveiling of the statue; the boys of the Lincoln School chanting the Lord's Prayer, accompanied by Willis' brass band. Mr. Badger then introduced Rev. Chas. L. Ames, who offered up a prayer to God for the preservation of the nation, which Lincoln as it were died to save. The inagural address was then delivered by J. W. Winans. Rev. Dr. Stone, Col. Hawkins and State Superintendent J. Swett made appropriate remarks. Extracts from Lincoln's last Inaugural were read by Professor Knowlton; the singing of "America," accompanied by the band, concluded the exercises.

NEW MODE OF DESULPHURIZING.—Messrs. Tait & Avie, of New York, have patented a process of desulphurizing sulphurets by a current of heated, compressed air, impelled by an air pump, in combination with a closed furnace containing the ore. They also claim in their process the use of nitro-oxide gas in combination with atmospheric air; also the use of steam in combination with the heated air.

A NEW MATERIAL for soling shoes has made its appearance at the East. It is a substance of which India rubber is the basis, but it is heavier, and, while as solid as iron, is flexible and elastic. It is said one pair of shoes soled with this article will outwear four pairs soled with the best English leather.

BUTTE CITY.—This once flourishing place, three miles from Jackson, has pretty much "gone in." The ground on which it stood has been nearly all washed down the gulch, and but three or four houses now remain to mark the spot where once dwelt the inhabitants of Butte City.

THE PATENT OFFICE.—One hundred and seventy-eight patents were to have been issued for the week ending March 20th, 1866. This is the second highest number ever issued in one week, the highest amounting to one hundred and eighty-four for the week ending July 25th, 1865.

THE LATE TERRIBLE DISASTER.

A few minutes after one o'clock P. M., on Monday last, our citizens were startled by a terrific explosion, the peculiar sharpness and great force of which astonished every one. So unlike was the report to that produced by the explosion of gunpowder or of a steamboiler, that every one instinctively asked: "What is it." No one for a moment appeared to think it could have been the effects of either powder or steam. On finding that it had occurred in the rear of a chemical laboratory, the impression at once obtained was that it must have proceeded from some kind of chemical compound not in ordinary use. Nitro glycerine was at once suggested; and subsequent investigations proved that supposition to be correct. The character of the report had all the sharpness of the crack of a rifle, while the tremendous concussion produced was greater even than that of the heaviest ordnance. Just such a report might be readily expected as the result of exploding a large quantity of that terribly effective agent, whose explosive power is said to be thirteen times that of gunpowder, when volumes are compared, and eight times its power when weight is considered. The effect was so great as to shake the earth, like an earthquake, for a circuit of a quarter of a mile. A full and complete account of this preparation, its wonderful explosive power, its chemical constituents, etc., together with a description of the mode of using it, illustrated with numerous engravings, was given in the MINING AND SCIENTIFIC PRESS of the 23d and 30th of December last.

The explosion occurred in an open yard or area in the rear of Wells, Fargo & Co's express office, the entrance to which was from California street, near the corner of Montgomery, and between the building occupied by the banking department of Wells, Fargo & Co. and J. C. Bell's assay office. The immediate cause of the explosion was supposed to have been the attempt to open a box containing several packages of nitro glycerine, one or more of which packages had undoubtedly been broken, allowing the fluid to find its way out of the box. The box was being opened to ascertain the nature and amount of the damage sustained, and without any knowledge whatever of what were its contents, as there was no mark upon the box itself or the accompanying way-bill, by which that fact could be ascertained.

It appears, from the testimony before the Coroner's Jury, that the parties opening the box were using a hammer and chisel, and the natural inference is that a blow from the hammer upon some part of the box saturated with the oil was the immediate cause of the explosion. Experiments made within the past few days upon small fragments of wood saturated with the oil, show that the oil contained, in even a very small chip scraped off with a pen-knife, may be thus exploded, with a report equal to that from a pistol.

The box measured, according to the freight clerk's record, a fraction over fourteen cubic feet. It was placed on the ground about six feet distant from the outer wall of a store room. This wall, which was of brick, one foot thick and twenty-five feet high, was completely demolished for the length of thirty feet, while the rear wall of the room was also badly shattered and cracked. All the brick walls around the area within the distance of twenty-five feet were badly shattered. The hard ground beneath where the box was lying, presented a depression to the depth of about one-and-a-half feet—probably in a great measure pressed downward by the force of the explosion.

The scene presented along California street to a short distance below Montgomery, and along Montgomery for the distance of several hundred feet, throughout the entire of the three story building in which Bell's assay office was located, and the entire of Wells, Fargo & Co's building, quite to its front on Montgomery street, can scarcely be conceived by one who did not see it. The fragments of glass, window-sash and shutters, covered the sidewalks and streets; while numerous fragments of the three unfortunate victims who were examining the box were picked up from the street, sidewalks and the tops of the buildings, upon and over which they were thrown for the distance of an entire block.

The loss of life was terrible. Eight persons were killed instantly, and three more died of their injuries two or three days afterward. Quite as many more were seriously wounded. The names of the killed are as follows:

Samuel Knight, Superintendent of Wells, Fargo & Co.'s express; G. W. Bell, assayer and member of the Board of Supervisors; F. E. Webster, clerk in the New York department of the express; William H. Haven, freight book-keeper of the Pacific Mail Steamship Company; William D. Jester, porter with Wells, Fargo & Co.; Felix Durivault, first cook at the Union Club; John Gallagher, hostler in Wells, Fargo & Co.'s stables; Dennis O. Donnell, waiter at the Union Club.

The results of this terrible calamity will probably prevent any further attempt at an immediate introduction of this new agent into general use for blasting purposes; although a more intimate acquaintance with its nature and properties, such as future researches will doubtless give us, may yet render it as safe as any other explosive compound. We are informed by Mr. Messrs. Bandmann, Neilson & Co., the sole agents for its sale in California, that they telegraphed to their principals ten days before the late explosion, that they had better discontinue any further shipments, until further orders.

In justice to Messrs. Bandmann & Neilson it should be stated that those gentlemen had nothing whatever to do with the shipment of the box which produced this terrible disaster. Their shipment was forwarded directly from the steamer's wharf to a safe deposit in a powder house on the Potrero. The shipper of the exploded box is unknown, although measures have been instituted by telegraph to ascertain who he is. It was addressed to "W. H. Mills, Los Angeles."

We hope to give some new facts, of scientific and general interest, bearing upon the nature and properties of this new compound, in the next issue of the PRESS.

LATER.—The telegraph, this morning, brings us the startling and deplorable intelligence that ninety cases of nitro-glycerine exploded at Aspinwall, on the 3d instant, aboard the steamer European, which brought the article from Liverpool. Fifty persons were killed, and the ship and 400 feet of wharf destroyed, including a loss of $1,000,000. The infamous oil was addressed to Bandmann & Neilson, of this city.

THE PARIS EXHIBITION.—Dr. Pigne of this city has been commissioned by the French Minister of Commerce and Public Works to make a collection of mineral specimens belonging to California, for the Museum of the Mining School of Paris. The Doctor invites all persons and especially all mining companies to contribute for this collection any interesting specimens which they may see fit to offer for this purpose. The collection, before being sent to the museum for which it is intended, will be placed on exhibition at the World's Fair, which is to be held at Paris in the summer of 1867. As it will be necessary to send on the collection early in the coming fall, contributors will see the necessity of sending in their specimens with as little delay as possible. A description should accompany each specimen, describing its character, the name of the contributor, the name of the mine, its locality, etc. When the cabinet is put up, this description will be neatly printed on cards to accompany the specimens. If any analysis has been made of a specimen, the result of it is requested with the ore. In all cases, where it is possible, the size of the specimen should not exceed four or five cubic inches. Specimens should be addressed to the care of Dr. Pigne, Dupuytreo, 1,022 Stockton street, San Francisco.

OIL WELL BORING IN SAN FRANCISCO.—Boring still continues at the well on the Potrero. A depth of 280 feet has been reached, and the drill is now passing through blue clay, of a very tough nature. The proprietors are sanguine of striking oil after passing this substance. For the information of the curious in such matters, we give the different stratas already passed through by the drill. The first 160 feet was green shale, resembling soapstone; then sand 18 feet; then green shale with streaks of white and blue clay 80 feet; then sand rock 22 feet; then blue clay, which has recently been struck, and in which they are still boring. The parties at the well assure us that at times the smell of oil is very strong, and that they intend boring, so long as the *smell* continues. We hope that they may be successful and realize their most sanguine expectations. There is no especial geological reason why oil may not be found, in some quantity at least, at the point where this well is being sunk, near the Potrero end of the long bridge.

"INFLUX OF WATER INTO MINES."—Especial attention is called to a letter from Professor Rowlandson, on the above subject, which will be found in another column of the present issue. The matter is one deserving of careful attention. It is quite evident that more care should be taken in conveying the water raised from mines to a safe distance from the mine's surface. We are impressed with the belief that if careful examinations are made a large number of our mining pumps will be found doing much of their duty twice over. We were especially pleased, during a recent visit to the Sneath & Clay mine, in Nevada, now under the management of Mr. S. P. Leads, to observe the care taken by the Superintendent to keep the water of Little Deer Creek from percolating into the mine. The entire Creek, together with a small branch, is taken up and carried over the mine in a wooden conduit. Would it not also be advisable to carry away, in the same manner, the water now received into the drain tunnel? We would again request a careful perusal and consideration of the letter referred to.

MECHANICS' INSTITUTE.—Another large meeting of this association was held last evening, at which the Board of Directors were authorized, by a decisive vote of 117 to 64, to sell the present building and appropriate the funds toward erecting the new Institute buildings on the lot already purchased and graded by the society, on Post street. We presume this action will satisfy the parties who recently obtained the injunction restraining the committee from proceeding with the work, thereby greatly hazarding the common interests of the Institute. The majority vote last evening comprised many of the best members who heartily sustain the new board of officers. The decided majorities shown at the two last meetings in favor of the committee and the board of directors, must convince the disaffected ones that they are unquestionably in the minority, and in our opinion they ought to submit in a good common sense way to the fairly expressed will of the majority.

METALS IN ERUPTIVE ROCKS.—M. Engelbach has discovered in the basalt of Annerod, at Giessen, near the Hartz Mountains in Germany, small quantities of the following very rare metals: Lithium, rubidium, titanium, and vanadium, together with traces of copper, cobalt, lead, tin and chromium. There is much probability that with careful analysis, a trace of most of the metals might be found in nearly or quite all eruptive matter.

MINING MACHINERY.—Capt. Lee, of Grass Valley, we understand, has ordered six Knox amalgamators, of the Golden State Foundry, to be placed in his new mill. Messrs. Dodge & Bro., of this city, have also ordered of the same foundry six of Hendy's Improved Concentrators, for the Benton mill, Bear Valley, Mariposa county. One of these concentrators was also shipped this week for Bigelow Bros., Coney Mill, Amador Co.

COPPER WORKS.—Persons in want of any description of copper or sheet iron work will do well to call upon Mr. M. Reynolds, on Market street, near First. All kinds of cooking stoves tinned or made to order at the same place.

We give below some statistics with regard to the efforts which the Superintendent and Board of Education have been making, within the past few months, to accommodate the children of this city with seats in the Public Schools. It will be seen that a large number of new classes have been formed; and we are assured that no efforts will be spared to provide a seat in the Schools for every child within the legal limits of age, who may do sire such accommodation.

No. of Pupils admitted to the Public Schools since April 1st, 1866.

Brannan street, one class	57
Perry and Third streets, one class	80
Union and Montgomery streets, one class	40
Broadway street, two classes	80
Corner Hyde and Bush streets, one class	60
Natoma street, two classes	80
St. Marks Place and Stockton st., two classes	80
Eighth street, one class	60
Tehama street, one class	40
Total	536
No. of Pupils admitted from July 1st, 1865, to April 1st, 1866	1,114
Total Primary	1,700
Total Grammar	711
Grand Total	2,414

Interesting to Smokers.—Messrs. Gibb & Stahl, at 120 Kearny street, are manufacturing a cigarette of improved construction, so rolled up and adjusted as to be much more easily smoked than those of the ordinary make. A small mouth-piece of stiff paper is attached to each cigarette, while the wrapper of the same is so secured as to preclude the possibility of its losing the "weed" by any unrolling, while in the act of smoking. The tobacco is also of a superior quality, and the cigarettes are much larger than those of the common make. The improvement has been patented. For sale at the cigar stores generally. See advertisement in another column, and inquire for the "Patent Russian Cigarettes."

Ward's Shirts.—The enterprising gentleman who has indissolably attached his name to one of the most indispensable articles of male apparel, has met with such unexpected success as to be compelled to open a second establishment in this city; and Ward's shirts, and all other goods in the gentlemens' furnishing line can now be obtained at the lowest prices, at either 323 Montgomery street, or at the new stand in the elegant block at the corner of Third and Market streets. Persons from a distance who are desirous of securing shirts of Ward's superior make, can obtain printed directions for self measurement, with price list, etc., in addressing a letter as above. See advertisement in another column.

Wm. H. Keith & Co., at Apothecaries' Hall, 521 Montgomery street, advertise in another column some very valuable medical compounds, in addition to their usual large stock of drugs, chemicals, fancy goods, etc. This is one of the oldest and best known drug stores on the Pacific Coast. Physicians and others from the interior ordering goods from them, can always rely upon having their orders filled with the utmost care and promptness.

A Wood Splitting Machine is now in operation on the long bridge, near Grant's stone wharf. The machine is run by steam, and consists of two knives, crossing each other after the manner of a +; the pieces of *wood* being placed upon the center where the knives cross, is split into four pieces by a hammer like a pile driver falling upon it. This appears to be a great improvement on the ordinary method of splitting wood.

A Tight Place.—Messrs. Kittridge & Leavitt have recently constructed a large vault for the Bank of California, seventeen feet in length by five and a half in width, and eight feet high. This vault is secured by a burglar and powder proof lock, which is constructed without a keyhole or any other visible mark by which it is opened. The lock is a new invention, and must be peculiarly discouraging to burglars.

Hon. W. B. Ogden, of Chicago, President of the Northwestern Railroad, who had invested large sums in the Nevada silver mines, has received his first dividend in the shape of a ton of silver in bars, valued at $45,000 to $50,000, based on the present value of greenbacks.

Wire Rope for Mining Purposes.—Wire rope is coming into quite general use for mining purposes. It is found, in practice, to be more convenient, more durable and cheaper than hemp. The establishment of Messrs. Hallidie & Co., for its manufacture in this city, affords mining companies the opportunity to order any kind, size or length of rope which they may need. This establishment has recently received an order from the Savage Company, of Washoe, for a flat hoisting rope, four inches broad by half an inch in thickness, and 750 feet in length. Its cost will be $3,500. This same Company has been using a rope of English manufacture which, although it cost $500 more than what the same size of rope will be furnished for by Messrs. Hallidie & Co., has, nevertheless, proved quite inefficient and much inferior to those manufactured here.

Hoagland & Newsom architects, practical builders and superintendents, office 328 Montgomery street, between Pine and California, room No. 3, up stairs, are ready at all times to furnish plans, specifications, accurate detail drawings and estimates for every description of buildings.

New Agricultural Implements.—We notice among the improved implements for labor-saving, Myers' Patent Hay Elevator or Horse Fork, by which hay or loose grain can be handled with great advantage by horse power, either in the open field or barn. It is made strong, and is said to be easily worked, taking from 500 to 800 pounds at a load to baling or threshing machine. They are manufactured by the Remington Agricultural works, Ilion, N. Y. Agency, 310 Washington street. There are also many improvements in Reapers, Mowers and Threshers, all of which will be of great use to the farmer. We have been shown an improved horse power on an entire new plan, doing away with all large and heavy castings, said to save one-half the power. Should it be as successful here as in New York and the Western States, it will be valuable to farmers, mechanics and miners.—*S. F. Mercantile Gazette.*

Fire-arms.—For the past few months these articles have been in light demand, and prices below home cost. Stocks on hand are not large. There is now a fair trade for mining and other expeditions. Many new styles as well as old are discarded, selling, if at all, for scarcely the cost of raw material. Standard arms long known to the public have slow sale, among which may be named E. Remington & Son's, Colt's, Smith & Wesson's, and Sharp's. Revolvers from six to eight inch barrel, sell from $9 to $12 each. Springfield rifles and like Government arms are in small demand at from $8 to $10 each. Remington & Sons, of Ilion, N. Y., one of the oldest and most prominent arms manufactories in the United States, have an agency at 310 Washington street. We notice a great improvement in their revolvers, the entire frame being composed of a solid piece of metal, rendering it of great strength, and desirable for long use, as the barrel, it is said, cannot get out of line and become worthless.—*S. F. Mercantile Gazette.*

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CAUTION.

TO WHOM IT MAY CONCERN:—THE PUBLIC ARE hereby notified that a patent was allowed, December 27th, 1864, and issued June 27th, 1865, to Professor Henry Wurtz, for the use of sodium and amalgams thereof with quicksilver, in the extraction of precious metals from their ores. All persons using said amalgams, or purchasing or selling sodium or said amalgams for use in the treatment of gold or silver ores, are hereby cautioned that they will be prosecuted to the full extent of the law.
The patents of Professor Wurtz have been assigned to the Wurtz Amalgamation Company of New York city. It is the intention of the said company soon to appoint agents for California and the other mining States and Territories. In the meantime, applications for licenses to use sodium and its amalgams, may be addressed to the company, at their office, No. 57 Broadway, New York.
C. ELTON BUCK, Secretary.
March 9th, 1866. 14v12-6t

GEORGE E. BROWN,
(Late Assistant Examiner in the U. S. Patent Office.)
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Already granted; will act as an Attorney in presenting Applications at the Patent Office, and in managing them to a final issue; will draw up Assignments; will examine into the condition of Rejected Applications when desired to do so, and undertake the prosecution of such as may be considered patentable, and do whatever else is usually done by Patent Solicitors.
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[Written for the Mining and Scientific Press.]

From Calaveras County.

[BY OUR SPECIAL CORRESPONDENT.]

[Continued from our issue of April 7th.]

Leaving Mokelumne Hill on the following day, I passed through San Andreas, and arrived at night at Calaveritas. This is certainly about as dull a camp as I have ever seen. I found a supper at a French restaurant, kept, however, by Mexicans, and a bed in an old barn of a building, which had once been a hotel, but which was now like

> —"a banquet hall deserted,
> Whose guests were fled, its garlands dead,
> And all but rats departed."

At least if any other living animals besides myself and the above mentioned rodents were its tenants, that night they showed no signs of their presence. At Douglass Flat, where I spent the night of the 16th inst., I found more life and business than at any other point on my trip. The deep placer mining at that place is more prosperous now than at any time within the last year. The lead of gravel is struck at depths ranging from 100 to 200 feet, and varies from six inches to six feet in thickness. It is generally opened by vertical shafts, through which the water is pumped out, and the gravel hoisted by water power. One company, the Dashaway, on the south side of the Flat, and another on the north side, have opened the lead by means of inclined tunnels dipping into the hills, which they consider preferable. I was entertained for the night at the house of Mr. Hitchcock, there being no hotels in the place, a fact which I did not regret, as it was the cause of my forming the acquaintance of a very agreeable family, and passing a pleasant evening.

AT ANGEL'S CAMP

Business is beginning to look up, though there is still great scarcity of money. Several companies are now at work taking out and crushing quartz, but want of space forbids my giving a full description of each. The ledges at this place are very large, and would doubtless pay well, if the rock was rich enough. Eight dollars per ton was the best average that was being obtained by any mills at the time of my visit, while the number of abandoned mills and fixtures lying around told, plainer than words, that more fortunes have been lost here than have been made. Two mills were running at the time of my visit, that of the Stickle Bros. of ten stamps, and that of the Angel Quartz Mining Company of seventeen. Both of these mills are using a machine, the invention of Dr. Hall of Angels, for catching the waste amalgam from the batteries. It is called the "Gleaner," and consists of a shallow pan, conical in shape, lined with amalgamated copper plates, which are so placed that the pulp discharged from the batteries runs directly into it in the center, and as the pan is kept revolving is discharged over the sides. The Superintendent of the Angel's company told me that one-third of the gold saved in his mill was caught in this pan.

Three miles west of Angels is the mine of

THE ALTAVILLE QUARTZ MINING COMPANY.

This mine has been opened to a depth of 140 feet, the lowest working level being 100 feet. At the surface there seems to be three or four small veins running in at north and south directions, and of various widths from a few inches to five or six feet. Some very rich pockets have been found, the rock from which has been worked in arastras. The average yield of that worked under the stamps is set down by the Superintendent at $10 to $15 per ton. The mill is of sixteen stamps and two arastras, and is driven by an overshot wheel, forty-eight feet in diameter, which is also employed to pump the water from the mine, and hoist the ore. While at this mine I was shown a pan of dirt taken from a crevice in the vein a few days before, which contained about $100 in coarse gold. If many such prospects as that are found, the mine is certainly a rich thing.

I arrived at this place on Monday morning, the 19th inst., and have spent my time since then in looking at the copper mines of this neighborhood. I wish, however, in making a notice of them, to include also a description of those in Amador county. The first of these that I visited is that of

THE COSUMNES CEMENT MINING COMPANY,

Located at Copper Hill, about five miles west of Latrobe. The company at first consisted of 100 persons, citizens of Michigan Bar, who located a claim 20,000 feet in length, on a range of croppings running in a northwesterly and southeasterly direction. At Copper Hill the croppings of the lode are probably 100 feet wide. The main shaft is sunk near the west side of the vein, and by a fine chimney of ore about 100 feet in length and from three to four feet wide. The dip of the vein is about forty degrees to the eastward, and that of the chimney some fifteen or twenty degrees north. The ore is a yellow sulphuret full of seams and cracks, and assays from fourteen to twenty per cent. The shaft is 400 feet deep, the lowest working level 370 feet. Another chimney has been opened, some distance southeast from the main shaft, from which a large amount of fine ore has been taken. It is intended to sink another shaft this summer in a central position, and work both chimneys from it. The ore and water are hoisted from the mine by a 25-horse power steam engine with reversible motion, and friction geared reels. The Superintendent, Mr. C. H. West, took great pains to give me information and make my stay agreeable. Near the Consumnes, on a parallel vein is the claim of the Oriental company. They have sunk several shafts, to depths varying from ten to 150 feet, with good prospects, having taken out some very good ore, but from some cause, probably mismanagement, the mine has failed to pay, and has been abandoned, at least for the present.

THE NEWTON COPPER MINE

Is located on the Jackson road, four miles east of Ione City. The claim consists of 1,800 feet on a vein running northwest and southeast, the croppings being visible for a distance of 800 feet, and the vein the most regularly defined of any I have ever seen. The dip of the vein is about thirty degrees east. The vein is opened to a depth of 155 feet, at which depth levels have been run 270 feet north of the shaft and 215 feet south, developing a vein of solid yellow sulphurets of copper from twelve to thirty-four per cent., from two to eight feet in thickness, averaging nearly five feet. There is no sign of "running out" either end of the drifts, and prospects are that the chimney will prove to be of indefinite length. C. T. Meader & Co., purchased a controlling interest in this mine about a year ago, Dr. Newton, the Superintendent retaining his interest of 250 feet, and one other of the former owners reserving thirty-seven feet, the others all selling out. The steam hoisting works were completed about the first of last September, since which time 1,800 tons of ore, from 12 per cent. upwards, have been shipped. No ore has been taken out north of the shaft, and only about one-fourth of that in sight, south of it, leaving between 30,000 and 40,000 tons of No. 1 ore in sight, which may be taken out in a years' time if desired. About 400 tons are now lying in sacks awaiting shipment.

Adjoining the Newton, being an extension southward of the same vein, is the Oak Hill claim. This company have not yet struck the lead, and work has been suspended for some months. I was informed, however, by Mr. C. B. Strong, of Ione, the President of the company, that work would soon be recommenced. On the south extension of this lode, Dr. Randall has struck very good looking ore, and is carrying on his prospecting with energy and good prospects.

Yesterday I spent in exploring the two principal mines of this place, the Union and Keystone, of which, and indeed of all the mines on this coast, the most important is the famous

UNION COPPER MINE.

The vein on which this mine is located lies in a northwest and southeast direction, and dipping to the eastward at an angle of sixteen to twenty degrees, the foot wall being a dyke of serpentine, some twenty or thirty feet wide, and the hanging wall the ordinary slate of the country. The claim consists of 1,950 feet, and has been open for a distance of 800 feet from the northern end. The main shaft is vertical, and has reached a depth of 480 feet, with levels running each way at depths of 72, 106, 150, 200, 250, 300, and 384 feet respectively. A cross is being started for a level at the bottom of the shaft. The shaft cuts the vein at a depth of seventy-two feet, at which point it is eight feet wide, the chimney extending a distance of about 100 feet. From this down to the 250-foot level it steadily increases in width until at that point it is from twenty-five to forty feet, the average of this level and the one next below being about thirty feet. On the two lower levels, the chimney has not yet been struck. As far down as this chimney has been traced, its length is about the same (100 feet), while it dips to the northward, by the measurement of Mr. Pethe-

rick, at an angle of about sixty degrees. At the north end of the main "chute" of ore the vein is divided by a "horse," which extends through this claim and the Keystone, forming two distinct veins. In the north shaft of the Union, the western vein is from four to five feet thick, and the eastern about three, on the lowest level in that shaft, a depth of 170 feet. At the south end of the chimney there is but one narrow vein, which in the south shaft has an average width of three feet, with from twenty to twenty-four inches of concentrated ore. I was told by the Superintendent, Mr. Balch, that nearly 25,000 tons of ore had been shipped during the past year, and he estimates that there are about 50,000 tons more in sight. There are now about 195 men in the employ of the company, nearly half of whom are employed in assorting the ores for shipment, as the low grade ores, being mixed with a large quantity of slate, require to be broken up and selected by hand. The machinery for hoisting and pumping is, as may be expected in such a mine, of the very best. In the main shaft a safety-cage is used, which is the invention of Mr. Wm. N. Shaw, one of the employees of the company, which is one of the most perfect working machines of the kind in use.

THE KEYSTONE

Is an extension of the Union, northward. The claim consists of 3,300 feet. The principal shaft, (called the Houlton shaft) follows the inclination of the vein, and is 360 feet in depth. Levels have been opened at depths of 90, 134, 195 and 275 feet respectively, developing two veins about twenty five feet apart. In the west vein but little copper is found, but in the east vein a chimney is found, varying from one to six feet in width, and about seventy-five feet in length, dipping to the north. The ore assays from fourteen to twenty per cent. Near the bottom of the shaft the dip of the vein is much greater than it is above, and at the bottom the shaft runs some distance into the serpentine, which forms the foot-wall of the vein. Another shaft, 430 feet northwest of the Houlton shaft, and known as the Discovery, is 175 feet deep. Here the conditions are reversed, the west vein being productive, and the eastern one barren. The chute in this shaft appears to be from 80 to 100 feet long, and to average about two feet in width. About 100 feet north of the Discovery shaft, and directly under the old "dressing works," a fine outcrop of gray ore has been struck on the east vein, on which Mr. Sheldon has commenced sinking a shaft. The lode throughout is very irregular in its developments, and the ore is mixed with slate to a very great extent, much of it requiring a large amount of assorting to fit it for market. An attempt was made a short time since to reduce these ores by crushing, and separating by water, after the Welsh method, but the machinery being somewhat imperfect, the work has been suspended for the present, though I was informed by the Superintendent that the last run of the machinery was attended with considerable profit to the company. The ore and water are hoisted from the Houlton shaft in tubs by a 28-horse power engine, while the pump in the Discovery shaft, and the machinery of the reduction works are driven by a fine engine of 60-horse power. Mr. Sheldon seemed to take great pleasure in showing me the works, and treated me with the greatest kindness and courtesy. On the southeast extension of the Union lead, the Empire company are prospecting quite vigorously, but have not yet struck the vein. The Harlem company, two miles west of town, have sunk on their lode to a depth of over 150 feet, and have found some very good ore, though not yet in paying quantities. The rock in their claim is very hard, making prospecting expensive business, but they are not the men to be discouraged. I sincerely hope they may be successful, for if perseverance was ever worthy of success, it certainly is in their case. D.

Copperopolis, March 21, 1866.

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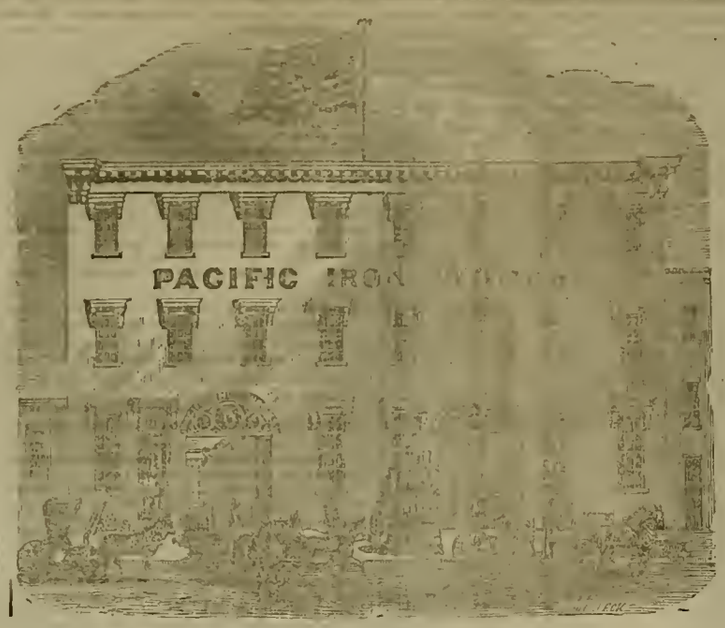

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Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

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WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

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HINCKLEY & CO.,

MANUFACTURERS OF

STEAM ENGINES,

Quartz, Flour and Saw Mills,

Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

Miners' Foundry

—AND—

MACHINE WORKS,

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EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,

Machinery, Mining Pumps, Amalgamators,

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Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

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All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

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MANUFACTURERS OF

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And all kinds of Mining Machinery.

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Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

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Boiler Makers and Sheet Iron Workers,

N. B.—All kinds of Boiler and Sheet Iron Work executed at the shortest notice, and on the most reasonable terms.

Mission street, between Beale and Fremont streets, San Francisco. 10-v12

JOHN LOCHHEAD'S

STEAM ENGINE WORKS,

Beale Street, near Mission Street,

SAN FRANCISCO.

Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc

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It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid.—[Nye County News

Postage.—The postage on the MINING AND SCIENTIFIC PRESS to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents

SEND US WORD.—If any subscriber to this journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

New Mining Advertisements.

Continued Mining Advertisements will be found on another page.

Arizona Consolidated Mining Company.—Location: Colorado River, Eureka District, Arizona Territory.

NOTICE.—The Annual Meeting of Stockholders of the above named Company, for the election of Trustees to serve for the ensuing year, will be held on MONDAY, the 7th day of May, at four o'clock P. M., at the office of said Company, No. 611 Clay street.

CEO. W. BUNNELL, Secretary.

San Francisco, April 16, 1866. ap21

Evoca Consolidated Copper Mining Company.—Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that the Annual Meeting of this Company will be held on THURSDAY, the 24th day of May, 1866, at No. 532 Merchant street, room No. 3, San Francisco, California. By order of the President.

CHARLES E. ABBOT, Secretary.

April 20th, 1866. ap21

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on the 18th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 4th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. B. WINEGAR, Secretary.

Office, 308 Front street, San Francisco. ap21

North Star Gold and Silver Mining Company, Reese River Mining District, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 9th day of April 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately to the Secretary, GOTTLIEB BEER, No. 226 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 14th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 6th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GOTTLIEB BEER, Secretary.

Office, No. 226 Front street, San Francisco, Cal. ap21

United States Mining Company.—Location: Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of April, 1866, an assessment of one dollar per share was levied on each and every share of the capital stock of said company, payable immediately, in gold coin of the United States, to the Secretary, at his office, or to DR. T. H. PINKERTON, South B street, Virginia, Nevada

Any stock upon which said assessment shall remain unpaid on Saturday, the 26th day of May, 1866, will be advertised as delinquent, and unless paid, will be sold on Wednesday, the 13th day of June, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. ad2l

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Assurance Mining Company.—Location: Occidental Lode, San Benito Mining District, County of Monterey, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the company, 302 Montgomery street, Room No. 4, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. F. BRANDRETH, Secretary.

Office, 302 Montgomery street, Room No. 4, San Francisco, California. ap14

Beard & Seaver Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
H H Allen	25	25	$12 50
H H Allen	27	30	15 00
H H Allen	108	15	7 50
H H Allen	110	5	2 50
Geo M Blake	14	3	1 50
H T Booraem	54	20	10 00
C W Brooks	58	20	10 00
C W Brooks	59	5	2 50
C W Brooks	80	10	5 00
Chas Bertody	64	20	10 00
Wm H Chevers	18	3	1 50
H F Cutler	51	8	4 00
W K Detrick	18	3	1 50
John Dall	21	3	1 50
W C Doane	95	5	2 50
D B Francis	3	3	1 50
S H Greene	8	5	2 50
R W Heath	7	7	3 50
Sarah Holmes	57	3	1 50
T E Lindenberger	5	3	1 50
T E Lindenberger	87	7	3 50
P C Lander	107	3	1 50
T J Lamb	46	12	6 00
W F Ladd	61	10	5 00
F P McMahon	43	20	10 00
Wm Nicol	1	3	1 50
S Pinkham	42	10	5 00
L B Pierce	75	25	12 50
L B Pierce	76	25	12 50
L B Pierce	77	25	12 50
L B Pierce	78	25	12 50
L B Pierce	79	25	12 50
O A Peck	86	5	2 50
E P Stone	44	15	7 50
E P Stone	45	15	7 50
S B Stoddard	55	10	5 00
J T Sixby	55	25	12 50
L B Seaver	68	25	12 50
L B Seavor	89	25	12 50
L B Seaver	70	25	12 50
L B Seaver	97	8	4 00
J M Stewart	95	5	2 50
E L Taylor	55	25	12 50
John Wightman	12	3	1 50
J H Woods	53	11	5 50
Beard & Seaver Stock account—		147	73 50

And in accordance with law and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 1st day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C FASSETT, Secretary.

Office, 402 Front street, San Francisco. ap14

Batopilas Mining Company, Batopilas District, State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of April, 1866, an assessment (No. 2) of twenty-five (25) cents per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 311 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 10th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.

Office, 311 Montgomery Street, San Francisco, Cal. ap7

Cosala Silver Mining Company, District of Cosala, Sinaloa, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of the Cosala Silver Mining company, held on Saturday, the 24th day of March, 1866, at the office of the company, an assessment of one dollar ($1) per share was levied on each and every assessable share of the capital stock of said company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the company, No. 310 Battery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on Thursday, the 26th day of April, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 12th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

CHAS. BAUM, Secretary.

No. 310 Battery street, opposite the Custom House, San Francisco. mar31

Eagle Quartz Mining Company—Location of Mine and Mill: Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of March, 1868, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
J P Bush	10	100	$100 00
J S Calef	76	100	100 00
J S Calef	77	50	50 00
J S Calef	78	50	50 00
J S Calef	136	55	55 00
J S Calef	180	121	121 00
Mrs H S Calef	181	40	40 00
J A Carrie	balon 183	155	155 00
Hudson, H S	61	10	10 00
Francis Kirk	182	5	5 00
Isaac Rowell	8	25	25 00
Eli Schell	173	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of John Middleton & Son, 404 Montgomery street, San Francisco, on the 25th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Building San Francisco, Cal.

MONEY BY MAIL.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County Cal.—Assessment No. 11.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the Office of the Company only.

Any stock upon which said assessment shall remain unpaid on the 12th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. ap14

Good Hope Gold and Silver Mining Company, Alpine District, Alpine County, California.

On and after April 23d, 1868, the Office and principal place of business of the above Company, will be located in the town of Markleeville, Alpine County. By order of the Board of Trustees.

PRESTON MORRIS, Secretary.

San Francisco, March 23, 1866. mar24-3w

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of April, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States Gold and Silver Coin, to the Secretary, S. S. SWEET, No. 611 Market street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 8th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.

Office, No. 611 Marke street, San Francisco, Cal. ap7

Harker Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
B Argyras	94	5	$ 2 50
G M Blake	65	10	5 00
F A Bee	128	5	2 50
A Block	117	10	5 00
Mrs S R Cagwin	56	10	5 00
Geo Clifford	53	10	5 00
James Camp	124	10	5 00
J A Drinkhouse	100	5	2 50
J A Drinkbouse	148	76	38 00
C J Dryer	98	1	50
C J Dryer	139	4	2 00
W C Doane	121	5	2 50
L Dinklespiel	141	10	5 00
D B Francis	50	10	5 00
A B Cayle	105	35	17 50
A B Gayle	107	3	1 50
A B Cayle	129	20	10 00
W B C Harker	27	20	10 00
W B C Harker	28	20	10 00
W B C Harker	27	10	5 00
M Harker	92	5	2 50
S Haas	95	15	7 50
S Haas	125	30	15 00
S Haas	127	15	7 50
S Haas	134	5	2 50
A W Hawkelt	110	5	2 50
John C Hall	120	10	5 00
N Jacobs	58	5	2 50
A D Meacham	91	5	2 50
F W Myrick	123	10	5 00
G A Pitney	38	20	10 00
G A Pitney	39	20	10 00
C A Pitney	40	20	10 00
G A Pitney	41	20	10 00
G A Pitney	42	20	10 00
C A Pitney	43	20	10 00
G A Pitney	44	20	10 00
G A Pitney	45	20	10 00
G A Pitney	47	10	5 00
G A Pitney	48	10	5 00
G A Pitney	122	15	7 50
Johanna Rosenbaum	59	10	5 00
W T Reynolds	85	20	10 00
W T Reynolds	86	10	5 00
W T Reynolds	87	10	5 00
E F Stone	62	10	5 00
C M Thureman	119	9	4 50
J W Work	51	10	5 00
L Wadhams	64	5	2 50
Geo Work	85	10	5 00
W G Wendell	57	5	2 50
Mark Wiggins	116	20	10 00
H Woodleaf	118	10	5 00

And in accordance with law and an order of the Board of Trustees, made on the 14th day of March, 1868, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 1st day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary,

Office, 402 Front street, San Francisco, Cal. ap14

I. X. L. Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of April, 1866, an assessment of one and a half dollars per share was levied upon the capital stock of said Company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 338 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 17th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 7th day June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary,

ap14 No 338 Montgomery street, San Francisco

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for BOOK AND PAMPHLET PRINTING entrusted to the Mining and Scientific Press Job Office.

Jefferson Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1868, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
O J Bacon	39	7¾	$8 88
O J Bacon	136	10	5 00
O J Bacon	137	10	5 00
O J Bacon	139	5	2 50
Bridgeport C nad S M Co	170	20	10 00
J S Currie	1	24	12 00
S O Clifford	33	2	1 00
S O Clifford	108	10	5 00
S O Clifford	109	10	5 00
S O Clifford	151	10	5 00
Jonas C Clark	156	23¼	11 62
M J Farrell	132	10	5 00
T L Frew	153	15	7 50
Jos Gilbert	68	20	10 00
Jos Gilbert	70	10	6 00
Jos Gilbert	71	10	5 00
Jos Gilbert	72	10	5 00
Jos Gilbert	73	10	5 00
Jos Gilbert	74	10	5 00
Jos Gilbert	75	10	5 00
Jos Gilbert	76	10	5 00
Jos Gilbert	77	5	2 50
Jos Gilbert	78	5	2 50
A B Cayle	173	5	2 50
John Hewston, Jr	81	20	10 00
A Hartman	184	10	5 00
A Hartman	185	15	7 50
S Jackson	14	20	10 00
S Jackson	15	20	10 00
S Jackson	18	8¼	4 12
T C Johnson	149	8	4 00
S T King	108	5	2 50
S T King	167	5	2 50
S T King	188	10	5 00
B Littlefield	121	10	5 00
James McGahey	20	5	2 50
James McGahey	21	5	2 50
D McDonnell	34	9¼	4 63
Eli McIntyre	122	11	5 50
Eli McIntyre	123	10	5 00
Eli McIntyre	124	10	5 00
Eli McIntyre	125	10	5 00
Chas McElvy	159	5	3 00
Chas McElvy	161	10	5 00
Chas McElvy	162	10	5 00
Chas McElvy	163	5	3 00
H Oyer	49	20	10 00
H Oyer	53	10	5 00
H Oyer	54	10	5 00
H Oyer	55	5	2 50
H Oyer	58	6	3 00
S W Potter	128	5	2 60
Georgo Priest	145	10	5 00
H H Pearson	154	15	7 50
Georgo Riley	150	7	3 50
M Seller	148	48	23 00
Sepastopol G and S M Co	155	9¼	4 63
N A Watson	142	3	1 50
Mark Wiggins	117	20	10 00
Mark Wiggins	118	10	5 00
Mark Wiggins	119	10	5 00
Mark Wiggins	120	11	5 50
J J Wooster	127	5	2 50
J H Woods	157	15	7 50
Georgo Work	159	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1858, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the office of the Company, on the 30th day of April, 1886, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. ap14

Kentucky Copper Mining Company, Mine Fe. lix District, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 2d day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable on the 3d day of April, 1866, in United States gold and silver coin, to the Secretary, at his office, 614 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 8th day of May, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 30th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. A. BAUER, Secretary.

Office, 614 Washington street, San Francisco, Cal. ap7

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
B Austin	358	50	$ 6 00
N Tack	271	100	10 00
N Tack	272	100	10 00
N Tack	273	50	5 00
N Tack	274	50	5 00
D F Richards	238	500	50 00
D F Richards	239	50	5 00
D F Richards	240	50	5 00
D F Richards	241	100	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1860, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Maurice Dore & Co., No. 327 Montgomery Street, San Francisco, Cal., on the 28th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

ap14 C. HEYWOOD, Secretary.

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 31st day of March 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 305 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 5th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. S. LUTY, Secretary,

Office, 305 Montgomery street, San Francisco, Cal. ap6

Madison Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
John Bicknell	131	15	$ 7 50
Peter Brust	121	3	1 50
Peter Brust	132	7	3 50
S O Clifford	117	10	5 00
S O Clifford	55	5	2 50
H F Cutter	65	10	5 00
B W Crowell	125	5	2 50
D F Coll	127	0	3 00
D F Coll	128	7	3 50
Jonas G Clark	129	10	5 00
Jonas G Clark	134	10	5 00
John Deardon	124	10	5 00
A N Davis	122	5	2 50
A B Gayle	137	5	2 50
Chas G Going	100	20	10 00
Chas G Going	101	0½	3 25
Chas G Going	102	5	2 50
Chas G Going	103	5	2 50
Chas G Going	104	10	5 00
Chas G Going	105	10	5 00
John Garber	108	10	5 00
John Garber	109	10	5 00
John Garber	110	10	5 00
R G Huffaker	77	10	5 00
E V Hatfield	78	10	5 00
S C Jewett	76	10	5 00
T G Johnson	112	0½	3 25
S Lathrop	133	10	5 00
P McAlaster	24	10	5 00
P McAlaster	25	10	5 00
C F Meyers	111	7	3 50
C F Meyers	135	2½	1 25
Arthur Moor	113	5	2 50
Chas McElvy	123	10	5 00
E Northrup	31	10	5 00
E Northrup	30	10	5 00
C M Pryor	30	5	2 50
C M Pryor	41	10	5 00
C M Pryor	42	10	5 00
C M Pryor	44	10	5 00
C M Pryor	45	10	5 00
C M Pryor	46	10	5 00
B L Plummer	79	10	5 00
B L Plummer	80	10	5 00
B L Plummer	81	10	5 00
B L Plummer	82	10	5 00
B L Plummer	88	10	5 00
B L Plummer	136	10	5 00
A G Silles	73	5	2 50
John Spencer	84	20	10 00
John Spencer	85	30	15 00
R Snyder	05	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the company, on the 30th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. ap14

Monitor Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent, upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
H W Bradley	11	13	$9 75
Charles Bartody	80	10	7 50
J F Bartholomew	102	10	12 00
Wm H Chevors	18	7	5 25
A P Cox	74	10	7 50
A P Cox	75	4	3 00
Jas Camp	88	10	7 50
L Dinkelspiel	25	5	3 75
S H Greene	83	9	6 75
W G C Harker	62	5	3 75
R W Heath	10	11	8 25
Jno W Harker	59	4	3 00
N B Jacobs	65	25	18 75
T E Lindenberger	1	3½	2 62
T E Lindenberger	79	6½	4 87
J M Shotwell	71	30	22 50
O V Sawyer	78	5	3 75
Anna K Turner	26	0	4 50
John Wightman	14	7	5 25
J J Williams	84	3½	2 62

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 30th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. ap14

Mosquito Quartz Mining Company.—Location of Works: Calaveras County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 31 day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
A Borel	52	5	$25 00
A Borel	220	39	195 00
D Davidson	117	5	25 00
T Goodchaux	167	12	60 00
Robert Irwin	134	1	5 00
B Levy	75	2	10 00
R R Maurice, J Percy	201	1	5 00
F Rollet	192	2	10 00
H Schmitt	178	5	25 00
H Schmitt	194½	5	25 00
P Torrie	111	4	20 00
P Torrie	112	4	20 00
P Torrie	113	2	10 00
O Touchard	228	16	80 00
F J Wilson	222	4	20 00
S M Wellhoff	109	2	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 31 day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 620 Montgomery street, San Francisco, Cal., on the 23d day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

E. H. WATERS, Secretary.

Office, 536 Clay street. ap7

POSTPONEMENT.—The above sale is hereby postponed until Saturday, the 28th day of April, 1866, at the same hour and place. By order of the Board of Trustees, duly made and entered on the records of the corporation.

ap21 E. H. WATERS, Secretary.

Oregon Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount
Ayres, W O	86	20	$ 5 00
Allen, H H	111	2	50
Allen, H H	203	5	1 25
Bee, A W	178	30	9 00
Buel, D E	207	2	50
Blake, G M	68	4	1 00
Blake, G M	45	8	2 00
Blake, G M	102	1	25
Bowman, Jno S	91	4	1 00
Bower, George	181	20	5 00
Bachman, N S	187	10	2 50
Crane, Israel	172	5	1 25
Chapin, S A	185	10	2 50
Cutter, H F	61	4	1 00
Cutter, H F	186	18 4 21	4 55
Colin, Samuel	189	14	3 50
Dettlebach, S M	105	10	2 50
Dinkelspiel, L	132	10	2 50
Davidson, Jacob	145	10	2 50
Earl, R M	162	30	7 50
Francis, D B	2	10	2 50
Francis, D B	0	10	2 50
Frank, J	117	20	5 00
Frank, J	193	8	2 00
Fish, Mrs Emma T	217	2	50
Fassett, N C	71	2	50
Greene, Samuel H	3	8	2 00
Greene, Samuel H	10	8	2 00
Greene, Samuel H	07	2	50
Greenbaum, A	155	10	2 50
Gentry, Abner	164	50	12 50
Grinbaum, M S	173	50	12 50
Grinbaum, M S	174	50	12 50
Heath, R W	4	12	3 00
Heath, R W	11	12	3 00
Heath, R W	69	2	50
Hanchett, H H	25	10	2 50
Haas, S	105	20	5 00
Herrington, W C	208	2	50
Haas, C S	190	15	3 75
Heineberg, A	104	8	2 00
Harker, J W	200	3	75
Hutchins, W P	201	6¼	1 56
Joh, Jerry	125	10	2 50
Newmark, M J	113	5	1 25
Newmark, M J	103	30	7 50
Perley, D W	20	20	5 00
Perley, D W	21	10	2 50
Perry, R	55	1	25 00
Rosenbaum, F H	7	5	1 25
Rice, H F	199	30	7 50
Strauss, M	93	10	2 50
Smith, A N	23	50	12 50
Simonsfield, Julius	96	10	2 50
Strauss, Emanuel	70	10	2 50
Salomon, Sylvan	108	2	50
Stateler, J W	133	10	2 50
Stateler, J W	134	10	2 50
Stateler, J W	135	10	2 50
Stateler, J W	136	10	2 50
Stateler, J W	137	10	2 50
Sharp, Geo F	157	4	1 00
Sinsheimer, S	101	10	2 50
Titus, J W	165	10	2 50
Wightman, Jno	60	4	1 00
Work, J W	65	2	50
Weill, Alex	74	5	1 25
Weill, Alex	106	5	1 25
Weill, Alex	146	10	2 50
Wheeler, M A	130	30	7 50
Wheeler, M A	129	20	5 00
Woodleaf, H	118	20	5 00
Woodleaf, H	140	10⅔	2 67
Waterman, E R	168	2	50
Litchfield, W D	48	1	25
Litchfield, W D	204	1	25
Lindenberger, T E	40	1	25
Levy, Isaac	107	20	5 00
Levy, Isaac	168	20	5 00
Levy, Isaac	169	20	5 00
Levy, Isaac	170	20	5 00
Levy, Isaac	171	10	2 50
Molitor S & M Co	13	10	2 50
McManus, M	77	0¼	1 57
Manheimer, J	175	10	2 50

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the company, on the 1st day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. ap14

Oxford Beta Tunnel and Mining Company, Esmeralda District and County, State of Nevada

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Ambrose Hiads	33	25	$12 50
Ambrose Hinds	34	10	5 00
Ambrose Hinds	35	10	5 00
Ambrose Hiads	36	5	2 50
Jacob Wissiug	140	5	2 50
Sidney Lemon	150	15	7 50
S F Wallace	174	10	5 00
L T Smith	183	5	2 50
J G Stover	220	25	12 50
J G Stover	221	25	12 50

And in accordance with law, and an order of the Board of Trustees, made on the 5th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the salesroom of Maurice Dore & Co., 327 Montgomery street, San Francisco, on the 25th day of April, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

GEO. H. PECK, Secretary.

Office, Corner Broadway and Sansome streets, San Francisco. ap7

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Pride of the East Gold, and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described Stock, on account of assessment levied on the 13th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
J M Ball	58	12	$0 00
J M Ball	59	10	5 00
J M Ball	60	10	5 00
J M Ball	61	10	5 00
J M Ball	62	10	5 00
J M Ball	63	10	5 00
J M Ball	65	10	5 00
J M Ball	67	10	5 00
J M Ball	68	10	5 00
J M Ball	69	10	5 00
J M Ball	70	10	5 00
J M Ball	72	5	2 50
J M Ball	73	5	2 50
J M Ball	74	5	2 50
J M Ball	75	5	2 50
S O Clifford	81	5	2 50
S O Clifford	82	5	2 50
S O Clifford	83	10	5 00
S O Clifford	84	10	5 00
S O Clifford	85	10	5 00
S O Clifford	86	10	5 00
Jefferson Cocke	150	10	5 00
James Camp	155	10	5 00
E M Darneal	39	12	6 00
E M Darneal	40	10	5 00
E M Darneal	41	10	5 00
E M Darneal	42	10	5 00
E M Darneal	43	10	5 00
E M Darneal	44	10	5 00
E M Darneal	45	10	5 00
E M Darneal	46	10	5 00
E M Darneal	47	10	5 00
E M Darneal	48	10	5 00
E M Darneal	49	10	5 00
E M Darneal	50	10	5 00
E M Darneal	51	10	5 00
E M Darneal	52	10	5 00
E M Darneal	53	5	2 50
E M Darneal	54	5	2 50
E M Darneal	55	5	2 50
E M Darneal	56	5	2 50
E M Darneal	57	5	2 50
Miss H Del'eu	146	5	2 50
R Ferguson	158	5	2 50
J W Harker	88	5	2 50
J W Harker	90	5	2 50
J W Harker	142	3	1 50
Jno Hunt, Jr	144	1	50
D L Hayward	156	5	2 50
Mrs Jas Heath	160	5	2 50
Joshua Lewis	151	10	5 00
H H Lieville	157	5	2 50
Wm M Matthews	1	15	7 50
Wm M Matthews	2	12	6 00
Wm M Matthews	3	12	6 00
Wm M Matthews	5	13	6 50
Wm M Matthews	7	10	5 00
Wm M Matthews	9	10	5 00
Wm M Matthews	10	10	5 00
Wm M Matthews	13	10	5 00
Wm M Matthews	14	10	5 00
Wm M Matthews	15	5	2 50
Wm M Matthews	16	5	2 50
Wm M Matthews	17	5	2 50
Wm M Matthews	18	5	2 50
Wm M Matthews	19	5	2 50
Geo H Matthews	152	5	2 50
W C Matthews	153	5	2 50
A Peterson	159	5	2 50
B L Plummer	101	4	2 00
B L Plummer	102	3	1 50
B L Plummer	103	10	5 00
B L Plummer	104	10	5 00
B L Plummer	105	10	5 00
B L Plummer	106	10	5 00
B L Plummer	107	10	5 00
B L Plummer	108	10	5 00
B L Plummer	109	10	5 00
B L Plummer	110	10	5 00
B L Plummer	111	10	5 00
B L Plummer	112	10	5 00
B L Plummer	113	10	5 00
B L Plummer	114	10	5 00
B L Plummer	115	10	5 00
B L Plummer	116	10	5 00
B L Plummer	117	5	2 50
B L Plummer	118	5	2 50
B L Plummer	120	5	2 50
Miss C L Rhodes	145	5	2 50
Alfred Rising	143	1	50
Henry R Reed	154	5	2 50
Samuel Smith	20	12	6 00
Samuel Smith	21	10	5 00
Samuel Smith	22	10	5 00
Samuel Smith	23	10	5 00
Samuel Smith	24	10	5 00
Samuel Smith	25	10	5 00
Samuel Smith	26	10	5 00
Samuel Smith	27	10	5 00
Samuel Smith	28	10	5 00
Samuel Smith	29	10	5 00
Samuel Smith	30	10	5 00
Samuel Smith	31	10	5 00
Samuel Smith	32	10	5 00
Samuel Smith	33	10	5 00
Samuel Smith	34	5	2 50
Samuel Smith	35	5	2 50
Samuel Smith	36	5	2 50
Samuel Smith	37	5	2 50
Samuel Smith	38	5	2 50
Jas Steel	147	8	4 00
Wm R Smith	149	10	5 00
J B Trask	78	10	5 00
Samuel Winans	4	10	5 00
Samuel Wioans	121	5	2 50
Samuel Winans	122	5	2 50
Samuel Winans	123	5	2 50
Samuel Winans	124	5	2 50
Samuel Winans	125	5	2 50
Samuel Wiaans	126	5	2 50
Samuel Winans	127	10	5 00
Samuel Winans	129	10	5 00
Samuel Winans	130	10	5 00
Samuel Winans	131	10	5 00
Samuel Winans	132	10	5 00
Samuel Winans	133	7	3 50
Samuel Winans	134	10	5 00
Samuel Winans	135	10	5 00
Samuel Winans	136	10	5 00
Samuel Winans	137	10	5 00
Samuel Wioans	138	5	2 50
Samuel Winans	139	5	2 50
Samuel Winans	140	5	2 50
Samuel Winans	141	5	2 50
Chas W White	161	10	5 00

And in accordance with law and an order of the Board of Trustees, made on the 13th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the Company, on the 27th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. ap14

ELECTROTYPE CUTS, ENGRAVINGS, ETC.—Our Job Printing Office is abundantly supplied with elegant engravings, ornaments, and other embellishments to suit the various branches of industry in this State.

Santa Cruz Petroleum Oil Works Company—Location of Works: Santa Cruz County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment No. 15, levied on the 10th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bruley, Patrick	505	10	$ 5 00
Bailey, Patrick	506	10	5 00
Curtis, Lucien	584	6	3 00
Curtis, Lucien	584	25	12 50
Gray, R S	198	50	25 00
Gray, R B	323	7	3 50
Gallagher, F D	740	10	5 00
Lledan, A	744	45	22 50
Langdom, Samuel	173	20	10 00
Langdom, Samuel	174	20	10 00
Langdom, Samuel	175	20	10 00
Langdom, Samuel	176	20	10 00
Langdom, Samuel	222	50	25 00
Langdom, Samuel	342	11	5 50
McComb, James	739	25	12 50
Moore, J H	325	300	150 00
Neville, Mrs A E	693	5	2 50
Ransom, Mrs A M	313	4	2 00
Ransom, Mrs A M	692	10	9 50
Ransom, Lee J	604	5	2 50
Reichert, I A	500	10	5 00
Sheldon, J P	732	30	15 00
Sheldon, J P	733	200	100 00
Tillinghast, W H	1	30	15 00
Tillinghast, W H	351	4	2 00
Tillinghast, W H	499	50	25 00
Tillinghast, W H	714	16	8 00

And in accordance with law and an order of the Board of Trustees, made on the 10th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Cobb & Sinton, No. 406 Montgomery street, San Francisco, Cal., on Saturday, the 28th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco. ap14

Silver Cloud Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 13th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
C T Gayle	1	50	$25 00
C T Gayle	2	10	5 00
C T Gayle	3	10	5 00
C T Gayle	4	10	5 00
C T Gayle	5	10	5 00
C T Gayle	6	10	5 00
C T Gayle	7	10	5 00
C T Gayle	8	10	5 00
C T Gayle	9	10	5 00
C T Gayle	10	10	5 00
C T Gayle	11	5	2 50
C T Gayle	12	5	2 50
A B Gayle	13	10	5 00
A B Gayle	18	5	2 50
A B Gayle	59	5	2 50
A H Hawley	76	10	5 00
A H Hawley	77	10	5 00
A H Hawley	78	5	2 50
E P Jones	19	25	12 50
E P Jones	20	25	12 50
E P Jones	21	25	12 50
E P Jones	22	10	5 00
E P Jones	23	10	5 00
E P Jones	24	10	5 00
E P Jones	25	10	5 00
E P Jones	20	10	5 00
E P Jones	27	10	5 00
E P Jones	28	10	5 00
E P Jones	29	10	5 00
Geo W Kinney	62	30	15 00
Geo W Kinney	63	10	5 00
Geo W Kinney	64	10	5 00
Geo W Kinney	65	10	5 00
Geo W Kinney	66	10	5 00
Geo W Kinney	69	5	2 50
Henry Ollis	73	25	12 50
Henry Ollis	74	25	12 50
Henry Ollis	75	30	12 50
J H Patty	30	25	12 50
J H Peoples	32	25	12 50
J H Peoples	33	25	12 50
J H Peoples	34	25	12 50
J H Peoples	35	25	12 50
J H Peoples	36	10	5 00
J H Peoples	37	10	5 00
J H Peoples	38	10	5 00
J H Peoples	39	10	5 00
J H Peoples	40	10	5 00
J H Peoples	41	10	5 00
J H Peoples	42	10	5 00
J H Peoples	43	10	5 00
George Peoples	45	25	12 50
George Peoples	46	25	12 50
George Peoples	47	25	12 50
George Peoples	48	25	12 50
George Peoples	49	10	5 00
George Peoples	50	10	5 00
George Peoples	51	10	5 00
George Peoples	52	10	5 00
George Peoples	53	10	5 00
George Peoples	54	10	5 00
George Peoples	55	10	5 00
George Peoples	56	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 13th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 27th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of the sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. ap14

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THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lover; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same veloeity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduetion to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been furnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

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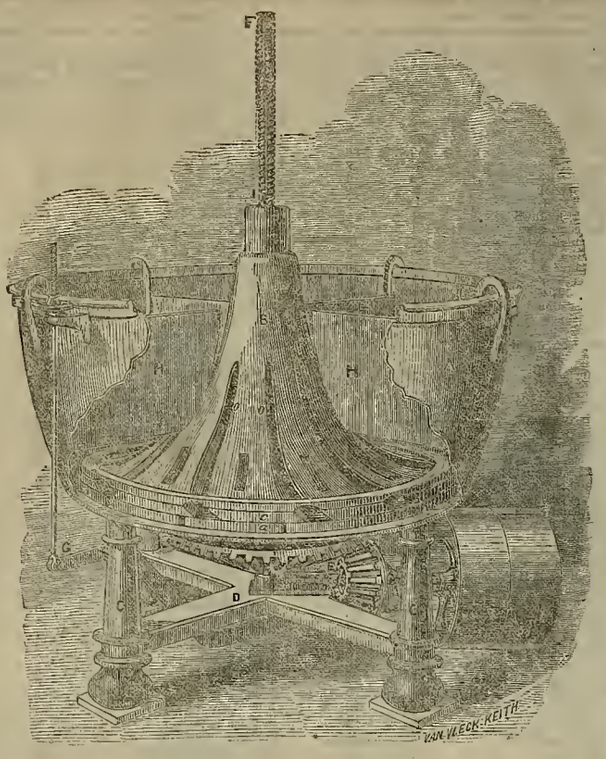
WHEELER & RANDALL, Inventors.

The nndersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.



Machinery.

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

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HUGO HOCHHOLZER,

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Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.

15v12-3m

EXCELSIOR DOUBLE ACTING
Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

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No. 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
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The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,

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Prater's Concentrator.

NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Dinsmore's Machine and Iron Works,

SAN FRANCISCO

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

Address: MORGAN HUNGERFORD,

10-v12 San Francisco, Cal.

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setters made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setters for themselves, at the **PACIFIC FOUNDRY,**

1v1 San Francisco.

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

GALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

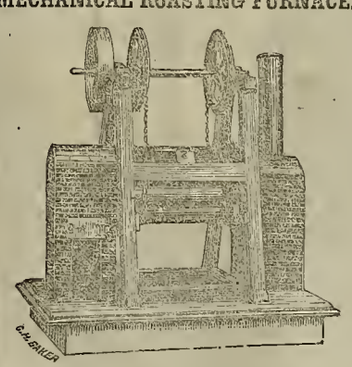
CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.

4v10

The Mechanics' Institute

AWARDED A

PREMIUM SILVER MEDAL
TO BRUCKNER'S
MECHANICAL ROASTING FURNACE.

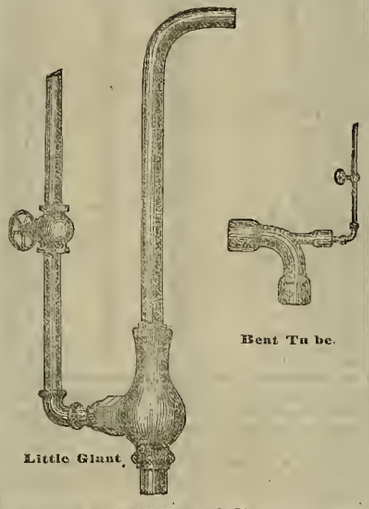


Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,

12v11 416 Market street, San Francisco.

TO PLACER MINERS AND OTHERS.



BREARS'
Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 320 Pine street.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 245 First street, San Francisco.

LIST OF PRICES:

Little Giant.		Bent Tube.	
Brass	$65	Iron, 4 in cl	$100
Iron	50	" 3 in. cl	75
		" 2 in cl	50
		" 1½ in. cl	35
		Brass, 1 in. cl	25

13-v12

PETROLEUM STOVES.

A MOST USEFUL INVENTION FOR ALL manner of COOKING and for IRONING, without any litter, as ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Cooking by them is divested of its disagreeableness and becomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,

Proprietors for California.

San Francisco, March 3d, 1866. 10-v12

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12. **DEVOE, DINSMORE & CO.**

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

Twelfth Volume.—The Mining and Scientific Press, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

Of the Term "Printer's Devil."—When Aldus Manutius set up in business as a printer in Venice, he came in possession of a little negro boy. The boy was known over the city as the "little black devil," who assisted the mysterious hiblofacter; and some of the most ignorant believed him to be none other than the embodiment of Satan, who helped Aldus in the prosecution of his profession. One day Manutius, desiring to dispel this strange hallucination by publicity, displayed the young "imp" to the poorer classes. Upon this occasion he made this short but characteristic speech: "Be it known to Venice, that I, Aldus Manutius, printer to the Holy Church and Doge, have this day made public exposure of the printer's devil! All those who think he is not flesh and blood may come and *pinch* him."

The Word "News."—Some lover of the curious in literature asserts that the word "news" is not derived from the adjective "new," as many suppose. He says that in former times it was common to see on the newspapers of the day the initial letters of the cardinal points of the compass, thus:

N.
W. —— E.
S.

These letters were intended to indicate that the paper contained intelligence from the four quarters of the globe; but they finally came to assume the form of "news," from which the term "newspaper" is derived. How remarkable is the power of that invention, which, by the aid of the telegraph, brings daily in small compass of the newspaper, news from all parts of the globe.

The Sponge Divers of Calymnos.—Mr. C. T. Newton, in his "Travels and discoveries in the Levant," says: "The island of Calymnos is celebrated for its sponge-divers, who sail in a fleet of caiques for the coast of Asia Minor and Syria, during the month of May, and fish up annually £16,000 worth of that valuable substance. The diver descends holding a flat stone in both hands, to assist him in sinking, on which stone a cord is fastened. When he gets to the bottom he puts this flat stone under his arm and walks about in search of sponges, putting them in a net around his neck as fast as he uproots them; he then pulls the cord as a signal, and is drawn up again. It is said that the best divers can descend to a depth of thirty fathoms, and that they can remain under water for as long a period as three minutes. From inquiries which I have made, it does not appear that they are often cut off by sharks, though these monsters are not unfrequent in the southern part of the archipelago. It is possible that the rapid descent of the diver may scare away this fish, who generally seizes his prey on the surface. A Calymniote told me that the most terrible sensation he had ever experienced was on finding himself close to an immense fish at the bottom of the sea. Under the roots of the sponge is a parasitical substance of a caustic nature. This often bursts when the sponge is suspended round the diver's neck, and the liquid it contains causes deep ulcers in his flesh."

Influence of Newspaper Reading on the Minds of Both Sexes.—We have found it to be the universal fact, without exception, that those scholars of both sexes who have access to newspapers at home, when compared to those who have not, are:

1. Better readers, excellent in pronunciation, and consequently read more understandingly.

2. They are better spellers, and define words with ease and accuracy.

3. They obtain practical knowledge of geography in about half the time that it requires others, as the newspapers have made them acquainted with the location of important places, nations, their governments and doings, on the globe.

4. They are better grammarians, for, having become so familiar with every variety of style in the newspaper, from the common-place advertisement to the finished and classical oration of the statesman, they more readily comprehend the meaning of the text, and consequently analyze its construction with accuracy.

5. They write better compositions, using better language and more connectedly expressed.

6. Those young men who have been readers of the newspapers are always taking the lead in the debating societies, exhibiting a more extensive knowledge upon a greater variety of subjects, and expressing their views with greater fluency, clearness, and correctness in the use of language.

Dr. Abernethy used to tell his pupils that all human diseases sprang from two causes—stuffing and fretting.

KEEPSAKES.—Let us say a word u on such remembrances as lockets, love-gifts and keepsakes. From the crooked sixpence which Mary, the maid-of-all-work, hoards jealously up in her box, because John the footman gave it to her—from the humble testimony of love to the glittering bauble that decks the fingers of her young mistress, we admire and prize them all. A keep-sake, like mercy, is "twice blessed —it blesseth him that gives and him that takes." No heart can be so dead to the best feelings of humanity as not to throb with some little emotion when the eye is gazing in solace and secret on the last relic of one we dearly loved. It hallows the mind and purifies the heart, and we have a saving faith, too, that it absolutely betters their morals. No very atrocious deed could be committed when the present of one we esteemed and respected was near to us to check every action. A locket, containing the hair of one no longer living, is a melancholy, but yet a gratifying memorial It is a kind of pledge given to those on earth in anticipation of a blessed union hereafter. The hair, too, is the last thing that decays, and is, therefore, the most appropriate relic of the dead. We never behold a locket suspended amongst the glittering jewelry of a pawnbroker's without being led into a train of most sombre reflections. What a struggle between life and death must that have been that induced the possessor to relinquish this last token to satisfy the cravings of hunger. It is too painful a theme to dwell upon long. The heart sickens at the sight of things, the very possession of which speaks of former o, ule ce and present poverty—of a once happy home, now deserted. These glittering memorials of love, these sacred offerings of friendship, are here exhibited like the bony integuments piled up in the Parisian catacombs, as part and parcel of the virtually dead.

LADY SUBSCRIBERS.—The editor of a Boston weekly paper pays a high and well deserved compliment to the fair patrons of the press. 'Women,' he says, 'are the best subscribers in the world to newspapers, magazines, etc. We have been an editor now going on forty-eight years, and we have yet never lost a single dollar by female subscribers. They seem to make it a point of conscientious duty to pay the preacher and the printer—two classes of the community that suffer more from bad pay, and no pay at all, than all the rest put together. Whenever we have a woman's name on our book, we know it is just as good for two dollars as a picayune is for a ginger cake.'

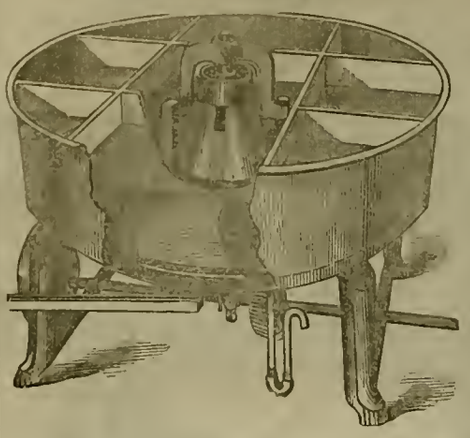
NATURAL HISTORY FOR THE YOUNG.—For many years it has been one of my constant regrets that no school-master of mine had a knowledge of natural history, so far, at least, as to have taught me the grasses that grow by the wayside, and the little winged and wingless neighbors that are continually meeting me with a salutation which I cannot answer as things are Why didn't somebody teach me the constellations, too, and make me at home in the starry heavens, which are always overhead, and which I don't half know to this day? I love to prophesy that there will come a time, when not in Edinburgh only, but in all Scottish and European towns and villages, the school-master will be strictly required to possess these two capabilities (neither Greek nor Latin more strict!) and that no ingenious little denizen of this universe be thenceforward debarred from his right of liberty in these two departments, and doomed to look upon them as if across grated fences all his life.—*Thomas Carlysle.*

NEST OF THE HUMMING BIRD.—The nest of the humming bird is a miracle of perfection in domestic economy. For beauty, fitness and safety, the wisdom and taste displayed in its arrangement are irreproachable. Bedecked in plumage of emerald, ruby and topaz, remarkable for the delicacy of its form and grace of its motion, unsullied by rain from the clouds or dust from the earth, feeding upon the nectar of the flowers, its habitation should be in character, and so it is. Shaped like a half cup, it is delicately formed of lichens, colored like the branch on which it is fixed, and lined with the soft down of plant blossoms, of mullen leaves, or the young fern. It is delicately soft, sheltered, and is indistinguishable from the bark of the tree, of which it seems a most natural excrescence—a moss-grown knot. Two white eggs as large as peas adorn the nest, upon which, as asserted by some naturalists, the cock and hen sit by turns for ten or twelve days. The little birds, scarcely larger than flies, enter upon their existence in a chamber tapestried as with velvet, and are fed with the sweets of flowers from the maternal tongue. The tiny household exhibits not only a commendable neatness but exquisite taste and delicacy in all its arrangements. Can gentle humanity derive no lesson from such an example?

AT the mines of Traversalla, in Savoy, magnets revolving on a wheel are used to pick up the powdered ore, leaving the copper pyrites behind.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of many years' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

3d. The "slushing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of ISRAEL W. KNOX, on W. A. PALMER, Inventors,

14v13-pl2q At the Golden State Iron Works, No. 19 First street, San Francisco.

HEUSTON, HASTINGS & CO.,

—THE—

FASHIONABLE CLOTHIERS

OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLES

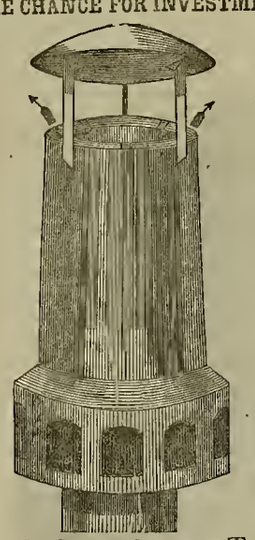
—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12 3m ☞ At Reduced Prices. ☜

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE



FOR STATES, TOWNS AND COUNTIES.

For the Best Chimney Top.

Ever Invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel.

Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee, E. A. HENRIKSEN,

Or J. E. JOERGENSEN,

12v12 3m No. 328 Kearny street, San Francisco.

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and nomadizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

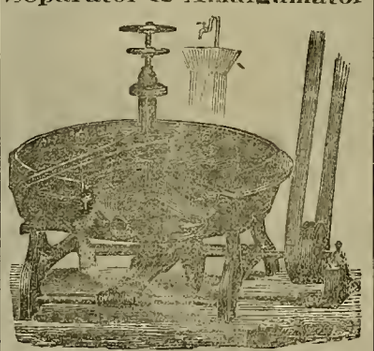
For sale by TREADWELL & CO.,

3v12-3m Corner of Front and Market streets.

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

BAUX & GUIOD S

Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Wahman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Hough & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v6-ddf

JAMES MACKEN,

COPPERSMITH,

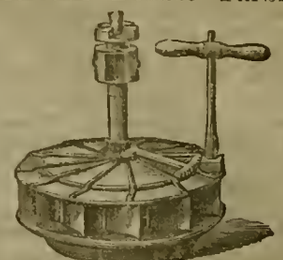
No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to. 13v11

LEFFEL'S

American Double Turbine



THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water wheel ever made, and which has given unusual satisfaction wherever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 300 feet fall Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require Write or send for circular to KNAPP & GRANT,

—ALSO— San Francisco.

Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by KNAPP & GRANT,

12v12-3m San Francisco,

HUNTER'S

PREMIUM

CONCENTRATOR, AMALGAMATOR

AND SEPARATOR,

Awarded a Silver Medal at the late Mechanics' Fair.

HUNTER'S CONCENTRATOR CAN BE SEEN IN OPERation daily at the Novelty Iron Works, Fremont street. Parties wishing to purchase Concentrators will find it to their advantage to examine the above machine before purchasing elsewhere, for the following reasons:

1st. It will work the sands from a 5-stamp battery, and save from 10 to 20 per cent. more sulphurets than any machine built on the Pacific coast.

2d. The Sulphurets are washed clean, containing less than ten per cent. of sand.

3d. The waste free gold and amalgam is amalgamated on the copper plates; no trace of ground mercury and scarcely a trace of metal passes off with the sand.

4th. Its simplicity is a sufficient recommendation for its general use as a Concentrator. The variation of speed in a Quartz Mill does not effect the working of the Machine. The same was demonstrated at the late Mechanics' Fair, when with the greatest IRREGULARITY OF SPEED the best of results were given.

5th. There is no clogging or stopping to clean out the sulphurets and sand; consequently no waste from any inattention on the part of the attendant.

6th. In exhibiting the working of the machine (it is not run empty), all classes of ores and tailings, from 50 pounds and upwards, are concentrated that parties may see fit to test the machine with.

Give it a trial, and satisfaction is guaranteed. All orders and any information required, address,

ANDREW HUNTER,

Novelty Iron Works, Fremont st., San Francisco,

15v12-3m Or to E. T. STEEN, Agent.

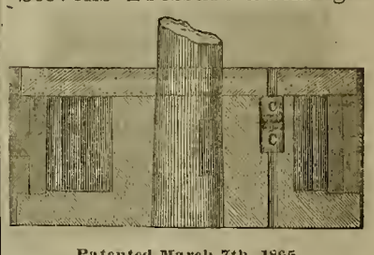
FOR SALE

A STEAM ENGINE!

18-INCH CYLINDER, 5 FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to HEYNEMANN & CO.,

26v11tf 311 and 313 California street.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

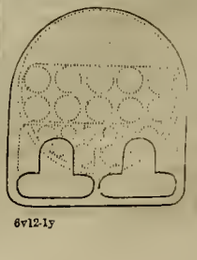
Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they an be seen, or at any time, in course of construction.

10tf **ANDREW STEVENS.**

NEPTUNE IRON WORKS,

Corner of Mission and Fremont Streets,

SAN FRANCISCO.



MARINE,

Locomotive,

And all kinds of

HIGH PRESSURE

Steam Boilers

MADE.

All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.

All kinds of Sheet Iron and Water Pipe, Coal Oil Stills, Wrought Iron Worms, etc., etc. Manufactured to Order.

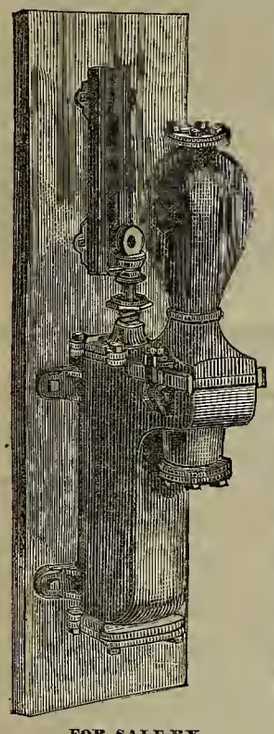
6v12-1y **Old Boilers Repaired**

D. CAMERON.

SCHOOL FESTIVAL.—The young ladies of the "Q. V. F. B." Society, of the San Mateo Female Institute, hold a festival for the benefit of the Society Library, on Friday next, April 27th, from 6½ to 11 o'clock, P. M. Tickets fifty cents. The cars for San Mateo leave this city at 4½ P. M., and return at 11 P. M. Tickets for the excursion $1. The ride will be a pleasant one, and the object is one well worthy of patronage. It is expected that there will be a pretty general turn out of the friends of the Institute.

Six-Inch Mining Pump.

THE HANSBROW PATENT PUMPS!



Warranted the Best Pumps Offered. All Sizes for Any Purpose.

FOR SALE BY

JOHNSON & CO.....Grass Valley, Cal.
CRAWFORD, LEAVETT & CO.....Nevada, Cal.
GEORGE E. TURNER.....Nevada, Cal.
JACKSON & BLISS.....Stockton, Cal.
FRANCIS SMITH.....Austin, Nev.
THOMAS HANSBROW.....Sacramento, Cal.

And Hardware Dealers Generally.

WHOLESALE AGENTS:

LOCKE & MONTAGUE,

112 and 114 Battery street, San Francisco.

Send for Catalogue and Price List. 16v12-1m

TRY IT 50 PER CENT SAVED BY USING

STANDARD SOAP COMPANY'S WASHING POWDER,

THIS POWDER IS SUPERIOR TO ALL OTHER PREparations for washing and cleansing. It is made of pure material, and contains nothing that will injure the finest fabric. Equally as good for using in hard as soft water. One pound will make three gallons of beautiful soft soap. Put up in wrappers of 1-lb each, and in wooden boxes of 10 lbs bulk. Ask your grocer for a package, and test its virtue. Manufactured at **207 Commercial street,** San Francisco. 15v12q

Pacific Mail Steamship Co's THROUGH LINE TO NEW YORK,

Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

On the **10th, 18th** and **30th** of each month that has **30** days.

On the **10th, 19th** and **30th** of each month that has **31** days

When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceding; when the 18th falls on Sunday, they will leave on Monday following.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departures of 18th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

30th—GOLDEN AGE.....Capt. E S. Farnsworth.
Connecting with ARIZONA, Capt. Maury.

Cabin passengers berthed through Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

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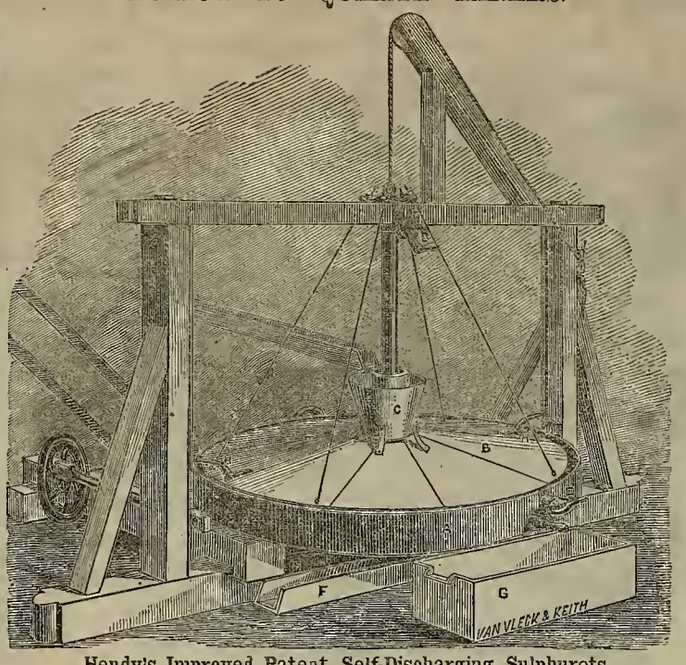

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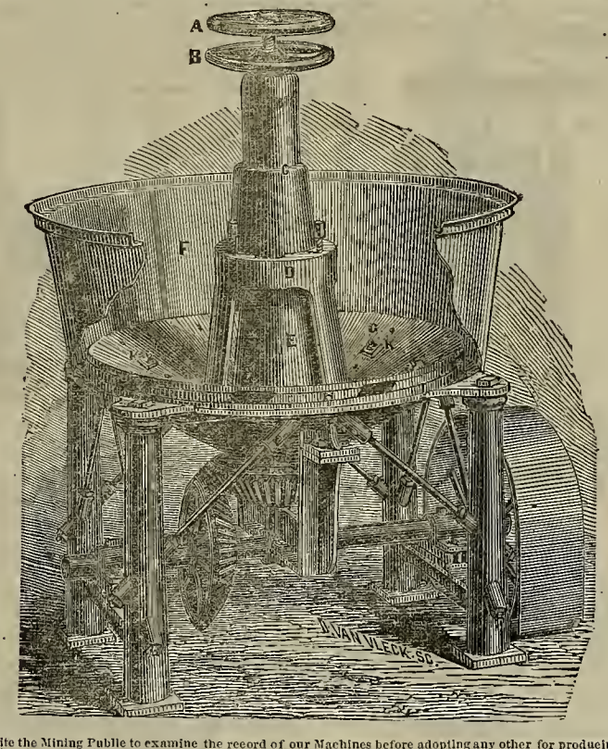

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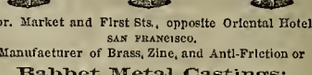

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Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors. | SAN FRANCISCO, SATURDAY, APRIL 28, 1866. | VOLUME XII. Number 17.

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THE AMERICAN FLAG.—The facts as to the origin of the American Flag, are simply these: A number of flags had been used previous to the Declaration of Independence, none of which could be called *national*. On the 14th of June, 1777, Congress ordered "that the flag of the thirteen united States be thirteen stripes, alternate red and white; that the union be thirteen stars, white in a blue field, representing a new constellation." The idea is supposed to have been suggested by John Adams, who was then chairman of the board of war; and it is believed that he took the idea from the arms of the Washington family, the shield of which represents a white field traversed by two red bars, with three spur rowels or stars in the upper portion. The resolution of June 14th was not made public until September 3d, 1777, and the stars and stripes were first displayed conspicuously at the surrender of Burgoyne, in October of the same year. No attempt was made to alter the flag until 1794, when it was resolved by Congress that there should be fifteen stripes and fifteen stars in it. The addition of a star and a stripe for each new State was found to be exceedingly inconvenient, as it would soon enlarge the flag to ridiculous proportions. In 1817, Captain Reid, of the navy, who had commanded the famous privateer General Armstrong, suggested that the thirteen stripes be retained in commemoration of the thirteen original colonies, and that a new star be added to the cluster in the union on the Fourth of July next succeeding the admission of any new State. The suggestion was adopted by Congress, and on April 4, 1818, became a law. The first flag under this law was made by the wife of Captain Reid. This lady died in Baltimore, Md., about the year 1857.

PAHRANAGAT.—The Reese River *Reveille* of April 3d, has the following:

Another View.—As everything in relation to Pahranagat is now of special interest to our readers, we give below the summary of a letter written to us by Joseph Todd. He is well known both in this State and in California, and his statements will be readily believed. Under date of March 21st, Todd writes: "I will give you my opinion of this country by saying that we are beautifully bilked. There is not a mine here that I would have as a gift. The mineral is principally antimony, galena and copper, with very little silver. You remember a piece of ore that was shown to us and others in Austin as coming from this district; well, I am now satisfied that it came from the Gould & Curry mine."

TEACHER'S PARTY.—The use of Lincoln Hall has been granted by the Board of Education to the teachers of the Lincoln School, to hold a party for the teachers of the Department and their friends, on the evening of May first. A pleasant time will doubtless be enjoyed on that occasion, by such as are so happy as to be numbered among the teachers of San Francisco, or who may be enrolled on their list of friends.

THE BIG VAULT manufactured by Messrs. Kittredge & Leavitt, and mentioned in our last issue, was made to the order of the Bank of British Columbia.

STATE BOTANIST.

Under the above caption several of our contemporaries have announced that our fellow citizen, Mr. H. N. Bolander, has recently been appointed Botanist to the State Geological Survey, whose duties, it is further stated, will commence with the examination of that hitherto almost unexplored district north and west of Clear Lake, to the Pacific; after the completion of which, his labors will be devoted to researches in Alpine country. The selection by the survey of the individual named, as well as the localities are equally excellent, and we may anticipate from the researches of Mr. Bolander, a description highly interesting, not only to those connected with California, but to science generally, combined with such deductions of an economic character as the observations made will justify.

The last idea induces us to throw out a suggestion that the next Legislature will do well to consider the propriety of appointing Mr. Bolander, to a certain extent, at least, an independent State Botanist. Our reasons for making the suggestion are because Mr. Bolander, in addition to the great and acknowledged ability which he possesses as a scientific and technical botanist, is one of those few, but when found most valuable scientific characters, in an economic point of view, who to an ardent attachment and pursuit of their favorite study never neglect, when an opportunity occurs, of pointing out where any scientific discoveries or observations can be made available to improve the condition of agriculture, and thus furnish additional stores for the enjoyment and blessings of life.

This climate, so peculiar in its character, and so variable in its seasons from the extreme of aridity to seasons of great rain, render the services of such a gentleman of the utmost economic value. A practical report from such an experienced botanist as Mr. Bolander on our indigenous grasses and clovers, for which latter California possesses a great variety, and their adaptation to different soils and climates, as well as the introduction of new species and varieties calculated for our special requirements, would be a boon of almost inestimable value, and should have a general circulation throughout the State, independent of the Geological Survey. By such means our farmers would at once obtain access to the accumulated observations of scientific men of various countries and ages in such a popular form as to be available to the humblest capacity. A report of the kind noticed, written in a popular form, would be calculated to advance our agriculture many years, and save large sums in the aggregate, which would probably be otherwise expended from time to time in individual trials; it would also greatly accelerate the acquirement of knowledge which, without the assistance of such information, would probably be obtained only at the expense of the losses occasioned by repeatedly dear bought experience. We have the utmost faith that when the labors of Mr. Bolander are given to the world, they will not only prove creditable to himself, but also reflect honor upon the State which has employed him. He has already entered upon his labors in the vicinity of Clear Lake.

REESE RIVER ORES.

The recent discussion which took place in this journal respecting Reese River ores, induced a gentleman to wait upon us for the purpose of inquiring into the real merits of the controversy. The applicant alluded to was referred, as the best information we could afford, to the table which appeared in the MINING AND SCIENTIFIC PRESS of the 3d February last, as respects the quality of the ores crushed at Reese River. This information did not appear satisfactory to the applicant, as he stated that the returns made by working with the pan process, would not be any criterion of the actual value of the ore attempted to be reduced. He described two species of ores found in the vicinity of Austin, one of which may be termed a strict antimonial ore; the other as very quartzose, intermixed with sulphurets, consisting of sulphurets of antimony, lead, zinc, silver and occasionally copper. Of these ores the party stated he had received information of a quite opposite character, as to the quantity obtainable; one party asserting that twenty tons per week could not be obtained in that vicinity, averaging $70 per ton; the other asserting that the quantity obtainable would keep 200 stamps at constant work. Which is correct? If sufficient ores of a class that would *assay* $75 per ton could be obtained to constantly maintain a small mill at work, we understand it is probable that, if encouragement were given, some parties in San Francisco would venture on a trial. What say our friends at Austin about this? What patronage would be afforded to such an enterprise?

Since the above was in type, we have been informed that it is under contemplation, by certain parties in this city, to send a competent person to Reese River to report on the conflicting statements made; and that, if the report of the party should prove favorable, to form a company, having for its object the development of the mineral resources of that district. As the party may leave here before our next publication, we would advise those interested in the matter at Austin, to be on hand and ready with all needed information.

We devote a large space in our columns today to the reply of Mr. Randall to Mr. Goodyear's review of Randall's first discussion of the "Grinding Effects of Differently Formed Plates." We have given the reply entire, in one number, in order that the matter may be transferred to book form. It will be our aim hereafter to guard as far as possible against lengthy discussions on any subject whatever.

A LIBRARY FOR THE DENMAN SCHOOL.—The use of Lincoln Hall has been granted for the purpose of holding an exhibition at the close of the present term, the proceeds of which are to be applied to purchasing a library for the Denman School. The friends of the Denman and all the other Schools should turn out on that occasion and give the "Denman girls" a right generous lift in aid of the good cause which they have undertaken. More particular notice will be given of the proposed exhibition when the arrangements for the same are fully completed.

NEW GRANADA.—A letter of date March 26th, from a Barbacoas miner to a friend in Virginia city, Nevada, speaks of those mines as the greatest "sell" of the day. Three days from Panama to Tumaco—500 miles—by the English steamer; three days at that place,—then off for the mines. Twenty miles by sea, and one hundred miles on the river in a canoe,—eight days. Mosquitoes intolerable. Two weeks work for the party of ten men, seventy-five cents. One mine, worked by a man named O'Connor, is the only one which "pays." The party were glad to get back to Panama. Forty men,—old miners,—"dead broke," came up at the same time.

A letter dated Panama, March 15th, says that twenty men of Joe Nelson's party from Virginia city and Gold Hill, Nevada, were drowned in the Checo river. Nelson was among the saved.

The U. S. Consul at Panama has visited the mines, and publishes the following card in the Panama *Herald*:

Consulate of the United States, Panama, March 28th, 1866. Messrs. Editors *Star and Herald*—Gentlemen: I fully approve the views expressed in your paper of the 27th instant, in regard to the emigration of poor miners to Barbacoas. Great suffering already exists at the mines, and my advice to all miners in California and Nevada is, do not come unless you have at least five hundred dollars in your pockets above the expense of getting to the mines, as a capital to start with, or as means of returning if sick or dissatisfied. I am very respectfully your obedient servant,

W. B. LITTLE,
United States Consul.

CEMENT MINING IN YUBA COUNTY.—A late correspondent of the Marysville *Appeal*, writing from Smartsville, under date of April 20th, gives a description of the "Blue Gravel" claims, now becoming famous, and he indulges in some speculations in regard to the origin of the formation in which it is situated.

We quote a few lines: "The appearance of the country—the nature of the gravel beds; petrifactious; conglomerate character of the soil; traces of aqueous action on the bed-rock, all lead to the conclusion that these mines occupy the bed of some ancient river, whose level line has been by some terrible convulsion, not raised up, but filled in. Why not raised? may be asked by some. Simply from the fact that if the bed had been raised, the gold-bearing dirt would be as much on the surface as in any other point, which is not the case. The pay dirt is not discovered until the depth of some hundred feet has been reached. Lying along this ancient bed are the following claims: Creary's, Blue Gravel, Pittsburgh, and Yuba River Company, Shamrock and Taylor's claim, in the vicinity of Smartsville, while the same indications are continued through the various claims near Timbuctoo, which were in earlier days so famed and rich." Most of the companies here named have "gone to work in earnest." The last run for the Blue Gravel, $50,000 for thirty-five days. The writer witnessed a mammoth blast, in which three hundred kegs of powder were used.

THE ÆTNA IRON WORKS is the name of the new foundry and machine shop just established at the southeast corner of Fremont and Tehama streets, by Messrs. John Hunscom, Henry S. Smith, Wallace W. Hanscom, and Thomas Pendergast.

To bring up a child in the way he should go—travel that way yourself.

"Grinding Effects of Differently Formed Plates."

REPLY TO W. A. GOODYEAR, CIV. AND MIN. ENG.

BY P. M. RANDALL.

Messrs. Editors of the Mining and Scientific Press:—I have read in your very valuable paper, Volume XII, pages ninety-eight to two hundred and ten, inclusive, with no little interest, Mr. W. A. Goodyear's elaborate discussion of the "*Tractory Curve and the Properties of Grinding Plates.*"

That motives no less pure than the exposing of "*fallacies*" and the enlightening and elevating of the public mind have actuated the author, I shall not at present call in question. Nor shall I doubt his self-imposed avowal that he has "never *seen* a discussion of this curve, other than that contained in the book referred to"—the Quartz Operator's Hand Book. Much less should I question any statement of his to the effect that he had "*never seen a discussion*" of the properties of "Grinding Plates." For the mathematical learning displayed in his discussion of the curve, would seem almost to preclude the possibility of the commission of errors so palpable and radical as abound in his discussion relating to grinding plates of different forms, had he hitherto given any study to the subject.

That the Hand Book is not entirely perfect, I am frank to admit; but if the few errors therein committed be likened to mole-hills, my critic's errors assume the proportions of "Ossa piled on Pelion." There is a saying that "critics, like flies, pass over one's good parts and light upon his sores." Not so in this case. Mr. Goodyear is far more considerate, perhaps deeming it cruel to sting an author in a sore place. So he nobly passes over, for the most part, the little imperfections of the Hand Book, and, like Don Quixote in his famous encounter with the windmill, valiantly attacks those mightier "giants," stubborn facts, rails at them, and terms them *fallacies*—"Only this, and nothing more."

His observation that "the analytical discussion which it (Hand Book) contains of the tractory curve alone, is correct as far as it goes," has reference, I suppose, to the relation of the coördinates of the curve to each other, the rectification of the curve, quadrature of its meridian plane, its surface of revolution and volume of the conoid therein determined, since, by comparison, I find in his discussion, for these properties, the same results. His going farther and determining the cusp points, the convexity on concavity of the curve toward the axes, that the directrix is an asymtote to the curve, and that the curve has four similar and equal branches, will, it is hoped, be found as highly useful and interesting to the general reader, as appropriate for the pages of an elementary treatise on the calculus. The facility with which Mr. Goodyear demonstrates that the evolute of the tractory is the common catenary, is highly creditable to his talents and acquirements. His vindication of D' Alembert and criticism of the Hand Book on this point, are entirely just as well as delicately expressed. But since he informs us that "the tractory curve itself is not a peculiarly difficult one to treat," *modestiæ gratia*, may I not add that I had the pleasure of discovering my error and of demonstrating the truth of D' Alembert's assertion, shortly after the publication of the Hand Book. In the "Differential Calculus, by James Haddon," pages 142 and 143, will also be found a very fine solution of the same proposition; but perhaps less elegant than that of Mr. Goodycar. His conjecture, arising probably from intuitive genius, is also quite correct that "It is not likely that either it (the tractory curve), or the properties of grinding plates, have remained until this late day undiscussed by able mathematicians, other than D'Alembert." That is—*correct*, providing D' Alembert has demonstrated the properties of grinding plates; on which subject the Hand Book is silent and I am uninformed.

His discussion of a certain curve, secondary to the tractory, is not without interest, and the curve itself unquestionably, for some purposes, might prove of no little value. At least, as Mrs. Toodles thought of Thompson's door-plate, under certain conditions "it would be a good thing to have in the house." But should the inventor construct a grinder to work on the principle of this curve, he would find ere long the muller running on the outside of his pan, if not altogether outside of his quartz mill. In passing from the primary to the secondary curve, Mr. Goodyear errs in premising that the wear to the plates takes place in the direction of the normal, reckoned from the point of tangency—this is impossible. No wear can take place in the plates farther from the center or axis than the point producing it. The direction of wear for any point taken in the revolving plate, is parallel with the axis of revolution. The relative position of any point taken in the plate cannot be changed without contracting, enlarging, or breaking the plate; and for that point we have the same ordinate or radius in the secondary curve as in the primary. The above being true, Mr. Goodyear has not come within beat of drum of the demonstration on page 103 of the Hand Book; but on the contrary, has simply conjured up a monstrous fallacy, and then cried out against the creature of his own distorted imagination.

But before going farther, let us distinctly state the main questions now at issue. It is proposed in the "Quartz Operator's Hand Book," to demonstrate that there is a difference in the grinding effects of differently formed grinding plates, all of uniform and same hardness, same diameter, same weight, and running at the same velocity; and that this difference in the grinding effects is due to the several forms of the plates themselves. The forms first discussed and compared, being the Plane, Conical and Tractory Conoidal. The forms next discussed and compared, being the Plane, Conical and Tractory Conoidal Rings, respectively the same as to their exterior and inner radii, weight, hardness and motion. Now, on the other hand, Mr. Goodyear says that there is no difference, and claims to have demonstrated the same. And it is utterly astonishing, that a person of such preëminent abilities, and so profoundly learned in mathematical and mechanical lore as Mr. Goodyear, should have found, neither in his deep investigations nor his extensive researches, a complete refutation of the deductions to which he has come. For, indeed, on this subject he does hut put his pen to the paper, and the sheet is sullied with a blunder. In proof of this, let us turn to a few of the standard authors.

In "Weishach's Mechanics," edited by Walter R. Johnson, page 165, on the subject of Pivot Friction, we find: "If the axle has conical ends, the friction comes out greater than if it has plane ends, because the pressure of the axle R is resolved into the normal forces N, N_1 which produce the friction, and which together are greater than R alone." In the original work of Weisbach, page 317, it is also shown that the moment of friction for tractory-formed pivots is greater than that of those having plane ends.

Professor Rankine, in his work on "The Steam Engive and other Prime Movers," page 17, says: "For Schieli's anti-friction pivot, whose longitudinal section is the curve called the tractrix, the moment of friction is $f \times$ the load, $\times$ the external radius. This is greater than the moment for an equally smooth flat pivot of the same radius; but the anti-friction pivot has the advantage, inasmuch as the wear of the surfaces is uniform at every point, so that they always fit each other accurately, and the pressure is always uniformly distributed and never becomes, as is the case in other pivots, so intense at certain points as to force out the unguent and grind the surfaces."

In "MM. Armengaud, Sen., Armengaud, Jun., and Amouroux's Practical Draughtsman's Book of Industrial Design," pages 181 and 182, we find as follows: "The ingenious and important contrivance of the 'anti-friction curve,' by Mr. Schiele, has found an important application in the grinding surfaces of millstones, in which it has introduced a striking departure from old estahlished principles. The inventor was led to the consideration of this system of working surfaces by the irregularities of wear in the common conical plugged stop-cock. Considering the truncated cone of the stop cock plug to he divided into a series of infinitely short lengths, he proposed to take a more obstuse cone for each larger portion, and in such progression that it would require equal pressure for every portion of the surface to cause a uniform sinking of the plug in the course of wear." (The manner of constructing the curve tractory and a description of his mill here follow.)

The authors then say: "No fixtures are required, as the weight of the parts insures steadiness in working. Perfect uniformity of wear in the grinding surfaces is attained hy the use of the curved face. * * And the inventor states that his experimental results go to show that a two feet runner produces as much flour as a four feet flat millstone, the power required being a minimum."

In the same work will be found a description of the "Ring Millstone," in which the inner radius is about one-half that of the external. And in summing up its advantages over the common millstone, the writers say: "Finally, by getting rid of the great area of *superabundant* stone at the center, the operation of dressing is obviously simplified very considerably."

It is evident from the above quotations, that the authors are clearly of the opinion that there is a difference in the amount of friction generated by differently formed pivots. Also as to the amount of grinding effect of differently formed plates, some of the authors are equally clear. In fact, grinding plates or mullers are hut large pivots. our calculations respecting both are based upon the same laws, except that authors have made no allowance for wear in case of pivots. Let us now determine the measure of this difference as shown by some of our ablest writers on applied mechanics. Turning to "Des Ingenieurs Taschenhuch," pages 143 and 144, and to "Weishach's Mechanics," pages 313 to 318, inclusive, we find the subject fully discussed. We find for the plane or flat pivots,

$$(1) \qquad M = \frac{2}{3} f R r$$

For the conical or pointed pivot,

$$(2) \qquad M = \frac{2}{3 \sin a} f R r$$

For the tractory conoidal pivot,

$$(3) \qquad M = f R r$$

In these formulas M denotes the moment or amount of friction, f the coëfficient of friction, R the pressure, r the radius of the pivot, and a the angle included between the axis and side of the cone. Professor Rankine, in his "Manual of the Steam Engine and other Prime Movers," page 17, expresses in substance the same as above, for flat and tractory formed pivots, hut is silent as to conical.

Taking in the above formulas the moment of friction $f R r$ as the unit, $r = 1$; and in formula (2) r = the hight of the cone, as in the Hand Book, and the relative moments of friction, expressed decimally, will stand for the

(1) Flat pivot ..... ,6667
(2) Conical pivot ..... ,7453
(3) Tractory conoidal pivot 1,0000

Now Mr. Goodyear tells us that there is no difference in the grinding effects of differently formed plates. He would have us helieve, both as expressed hy word and formula, that the relative grinding effects or moment of friction, would stand for

(1) Flat plates or pivots 1,0000
(2) Conical plates or pivots 1,0000
(3) Tractory conoidal plates or pivots. 1,0000

See his formulas (64), (72), and (76).

It is thus apparent, according to the authorities cited, that the moment of friction of flat pivots or plates is hut two-thirds as much as Mr. Goodyear makes it; and that of conical pivots or plates of the given proportion, a trifle less than three-fourths as much; nnd that in the former case this friction or effect is but two-thirds that of tractory-formed plates or pivots, and in the latter a trifle less than three-fourths as much. What of "*fallacies?*"

Mr. Goodyear says in his preface, in referring to the "Quartz Operator's Hand Book," "I am sorry to appear in public to depreciate the work of any man; hut when, in a case like this, fallacies are presented as mathematical demonstrations, it is hut just to the public, who are interested, that they should be informed of the fact."

Now, if he has accomplished what he there proposed, it seems to me, and I think it does to the reader, that he

has given Professor Rankine, Weisbach, Johnson, Schiele, the authors of "Des Ingenieur's Taschenbuch," and MM. Armengaud and Amouroux what the "Robber Kitten" in the *dreary wood* gave the cock, "an awful shock! shock, shock, shock!" But if he has not accomplished what he proposed, he will at least have the consolation left to him in knowing that "it is not the first time in the history of human affairs that the vigor and success of the war have not quite come up to the lofty and sounding phrase of the manifesto."

By applying the same scale as adopted above, in reference to the relative grinding effects of differently formed plates to the formulas obtained on pages 107, 108 and 109 of the "Quartz Operator's Hand Book," and we shall have for the grinding effect of

Flat plates or pivots	,5000
Conical plates or pivots	,5590
Tractory conoidal plates or pivots	1,0000

These results differ from those obtained by the authors cited. The reason of this difference is, that the authors in determining the moment of friction for differently formed pivots, have not taken into account the wear to the pivot itself. That is, they have presumed friction to take place without wear to the pivots, depending upon unguents to prevent the pivot and step coming in contact. Professor Rankine on the subject of unguents, says: "Three results in the preceding table, Nos. 16, 17 and 18, have reference to smooth, firm surfaces of any kind, greased or lubricated to such an extent that the friction depends chiefly on the continual supply of unguent, and not sensibly on the nature of the solid surfaces; and this ought almost always to be the case in machinery." See also quotation hereinbefore given from the same author on the subject of "Scheile's anti-friction curve."

If the pivot and step come in contact so as to grind, I conceive but two cases as to flat and conical pivots, compared to tractory-formed in which the authors cited are strictly correct; one in which all the surfaces are infinitely hard, and the other in which the hardness of all at the circumference is the same, and decreases in the flat and conical pivots toward the center in the ratio of the decrease of their radii. See Hand Book page 107. But if they do not come in contact, being as they should prevented by proper unguent, then for most practical purposes the authors cited are correct.

Comparing results it will be found that the authorities cited, and the Hand Book agree as to the ratio of the moments of friction or grinding effects between the flat and conical pivots or plates, thus,

,5000 : ,5590 : : ,6667 : ,7453

But Mr. Goodyear finds no such ratio. He tells us with the utmost assurance that the grinding effect of plane plates is *one*, that of conical, *one*, that of tractory conoidal, *one*; that it is *one, one, one,* "all the way down," like the rocks on which other distinguished philosophers averred the earth to stand.

Again, to prove the truthfulness of the deductions in the "Quartz Operators Hand Book," relative to the grinding effects of plane and tractory conoidal plates. Conceive a plate having a plane grinding surface, to be made up of an indefinite number of independent concentric rings, all of the same weight and thickness, and let their grinding effects be measured in the plate on which they revolve. It is now evident, if each ring be revolved independent of the others once about its axis or center, that all will wear into the stationary plate at right angles to its face, to the same depth; and hence the secondary surface to which they shall have arrived, will also be a plane.

But if there is no tendency of the rings to pass each other up or down, in other words, in a direction parallel with the axis of revolution, then a solid of the same dimensions and weight, would give the same result. Let us next determine the form and contents of this solid. It is evident that a ring of half the radius of another must be of twice the hight, in order to weigh as much. So a ring of one-third, one-fourth, one-tenth, one-hundredth, or one-thousandth, etc., of the radius of another, must be three, four, ten, one hundred, or one thousand, etc., times the hight in order to weigh as much. The hight of these rings may be determined relatively by dividing the constant radius by the radius of the ring whose hight is sought. The thickness of each ring is to be supposed infinitely small.

The contents, since the rings are all of the same weight, are readily found by multiplying the product of the greater or constant radius, and its circumference by the hight of the ring (outer). Call this plate (A). Now the contents of a plane plate of uniform thickness, and of the same radius and hight as the outer ring in the solid above, are equal to one-half the product of the radius and circumference multiplied by the hight. Call this plate (B).

We thus perceive that the contents or weight of plate (B) is but half the contents or weight of plate (A). And this plate (B) being rigid, as to its parts, would have but half the grinding effect of plate (A). If the grinding effect of plate (A) be a unit (1,0000), that of (B) will be (,5000).

Now the grinding effect of plate (A) has been shown to be uniform like that of the tractory. That is, no portion of the plate impedes or increases the grinding effect of any other portion of the plate. If equally thin rings of the same radius and hight be taken at the circumference of each plate, and revolved about their respective axes, their grinding effects will be equal. Each will wear into the stationary plate to the same depth. But that the grinding effect of the outer ring, taken in the tractory plate, shall neither be impeded nor increased by the balance of the plate, it follows that the vertical hight at all points of the plate, parallel with the axis, is equal to the hight of the outer ring.

The contents of a plate of this form are the same as the contents of a plane plate of equal radius and hight. See Hand Book, page 105. But the contents of the plane plate have been shown equal to half the contents of plate (A).

The contents of the hollow tractory plate are then equal to half the contents of plate (A). But the grinding effects of the tractory, have been shown equal to the grinding effects of plate (A), that is a unit (1.0000). While the grinding effects of the plane plate of equal radius and weight have been shown equal to one-half of this, to wit, (,5000). This is precisely the same ratio as found in the "Quartz Operator's Hand Book."

As to the assumption in the above discussion, that the grinding effect of any portion of the tractory plate is not impeded nor increased by any other portion of the plate, I do not understand that there is any question. On this point, as already quoted, MM. Aremengaud & Amouroux say: "Considering the truncated cone of the stop-cock plug, to be divided into a series of infinitely short lengths, he (Schielo) proposed to take a more obtuse cone for each larger portion, and in such progression that it would require equal pressure for every portion of the surface to cause a uniform sinking of the plug in the course of wear;" also, "perfect uniformity of wear in the grinding surfaces is attained by the use of the curved face." Professor Rankine says: "The wear of the surfaces is uniform at every point, so that they always fit each other accurately, and the pressure is always uniformly distributed." Weishach, in determining the moment of friction of pivots or "toes" of uniform wear, says: "The moment has to be the same on all parts of the *toe*, if we wish to have equal wear of the *toe* and its journal, consequently the tangent for the whole generating curve of the *toe* has to be the same, *a*" —that is, the curve is the tractory. The demonstrations of the other authors hereinbefore cited, agree perfectly with the preceding quotations. And I am happy for once to find, if I understand Mr. Goodycar correctly, that he assumes the same thing. At least his demonstration is based on it.

But as to his attempted demonstrations of the grinding effects of plane and conical plates, it is quite evident that he was either knowing *too little, or too much.*

On page 178 of the Mining and Scientific Press, he says: "Let, now, the actual pressure per unit of surface at the circumference when the plates are in motion be represented by P; represent also the pressure at any point whose radius is *y*, by P'. Then if *a* denote the radius of the plates, we have

$$(62) \qquad P' = P\frac{a}{y}."$$

On these premises he finds the grinding effect of plane plates to be "$2\pi^2 Pa^3$."

And I will add that the result is correctly deduced from the premises.

Taking Mr. Goodyear's premises, let us see what would be the contents of the plate whose grinding effect would be "$2\pi^2 Pa^3$."

Putting V = the volume or solid contents, and we have $dV = 2\pi Pa\,dy$.

Taking the integral between 0 and *a*, and we have

$$V = 2\pi Pa^3.$$

Now, the solid contents or volume of a plane plate whose radius is *a*, and whose uniform pressure or hight, is represented by P, is

$$V = \pi Pa^2.$$

And this (πPa^2) is the volume or size of the plate which Mr. Goodyear tells the public has for its grinding effect ("$2\pi^2 Pa^3$"), when, in fact, as shown above, it is only half the volume or size of the plate which he has employed in his calculations to obtain that result.

Had he told the whole truth, he would have given the same result as found in the Hand Book, page 108, which, by word and formula and pretended demonstration, he has denounced a "*fallacy.*" It is said that "the art of all arts is to appear artless." Estimating by this standard, the palm must be awarded to Mr. Goodyear for having produced the great masterpiece of art.

The results which he obtains on page 194, Equation 72, set forth to be the grinding effect of conical plates, and the manner of obtaining these results, are open to still severer criticisms. There, after committing an error similar to the one in relation to plane plates, he "with one fell swoop lops off" the conic form and substitutes the plane. Having now attained his plane plates of double the weight proposed to be used at first, he all at once becomes highly consistent, and has them accomplish the same grinding effect as his other plane plates of the same radius and weight. By reference to the Hand Book, page 110, and to the formulas of Weisbach and "Des Ingenieurs Taschenhuch," hereinbefore quoted, it will be found that those authors were less *artful;* that they could not strip the cone of its conic form; nor, by any "*agamento, presto change,*" double its real weight, and still have it retain its weight and accomplish as a cone the same grinding effect as a plane plate of equal size and weight. This will be found no exaggeration by any one who will carefully examine Mr. Goodyear's calculations and deductions relative to the grinding effects of conical plates.

If this be the way in which Mr. Goodyear, as the public's benefactor, shows up the "*fallacies*" of authors, it may well be doubted whether he will challenge very much of the respect of mathematicians, mechanics and miners, saying nothing of the confidence of the public.

Let us now turn our attention to the grinding effects of plane, conical, and tractory conoidal rings, as practically employed in grinders and amalgamators. On this point I am frank to admit that the Hand Book is not entirely correct, and I am happy of the opportunity of making the corrections myself. I can but regard myself saved in this respect, as was Rome at the time when the sentinels had fallen asleep. But before making the corrections, let us compare the results obtained by Mr. Goodyear, to those of the authors hitherto quoted. Mr. Goodyear, in the Mining and Scientific Press, page 210, gives for the grinding effects of rings, whose inner radii are respectively one-third of the outer radii, as follows:

"(78)" Plane rings	"1,778"
"(80)" Conical rings	"1,778"
"(81)" Tractory conoidal	"1,778"

All the same—the "*irrepressible*" *unit ratio* still prevailing. It will be observed that he finds the grinding effect of the ring in each case to be less than that of the entire plate from which it was taken. This is only true in the case of the tractory conoidal plate. The grinding effect of the respective plates entire corresponding to the above numbers, is "(2)," as will be seen by referring to his formulas "(64," "(72)" and "(76)."

Turning to "Weisbach's Mechanics," page 313, and to Professor Rankine's "Applied Mechanics," page 617, and we find the following formula in each for the moment of friction of the flat ring pivot or plate, viz.:

$$(4) \qquad M = \frac{2}{3} f R \left(\frac{r^3 - r'^3}{r^2 - r'^2}\right)$$

In which *M*, *f*, *R* and *r* have the same values as in formulas (1), (2) and (3).

Putting $r = 1$, and $r' = \frac{1}{3}$, and we have

$$M = \frac{78}{108},$$

which, expressed decimally, is ,7222.

This we perceive to be greater than the moment of friction for the whole plate or pivot, which, as shown, is ,6667.

Taking now the formula for the moment of friction of the conical ring pivot, viz.:

$$M = \frac{2}{3 \sin a} f R \left(\frac{r^3 - r'^3}{r^2 - r'^2}\right),$$ and making, as before, the hight of the cone equal to one-half the constant radius, and we have for the moment of friction of the conical ring ,8074.

All agree (including Mr. Goodyear) that the moment of friction of the tractoroidal ring of equal weight and radii to the above is ,8889.

Taking the same unit as adopted by Mr. Goodyear,

and we have for the relative moments of friction of pivots or plates of the ring form as follows, to wit: for

(4) Plane ring.....1,4444
(5) Conical ring.....1,6148
(6) Tractoroidal ring.....1,7778

The above results clearly refute the deductions of Mr. Goodyear, not only in regard to the moments of friction of the rings as compared among themselves, but as compared to the whole plates. But the difference in the grinding effects of plane and conical rings as compared to tractoroidal, is greater than above shown; for by the above formulas, (4) (5) and (6), no *abrasion* of the pivot is supposed to take place, while in grinding plates the amount of effect is measured by the *abrasion*.

Professor Rankine says: "The bearings of axles should be made of materials, which, though hard enough to *resist the rubbing without abrasion*, are not as hard as the axle." The quotations already made in relation to unguents and the "anti-friction pivot," go to the same conclusion. Besides, the demonstrations themselves of the author's unmistakeably show that the *element of abrasion* was not introduced.

I will now offer the following solution of the problem of plane and conical grindiug plates, which, so far as I know, is "*original*." I obtained it sometime past, and am *certain* as to its correctness.

In plate (A),

Let a = the radius of the plate.
y = the radius of a central opening in the plate.
P = the pressure per unit of area or hight of the plate at the circumference.
S = solid contents.
E = the grinding effect by one revolution.
V = the solid contents of a plane plate of equal radius to that of (A) and uniform hight = P.
G = the grinding effect of the plane plate whose volume is V.
π = the ratio of the diameter to the circumference.

Then, $ds = -2\pi P a\, dy$

Taking the integral, observing that

S = 0, when $y = a$ $\quad S = 2\pi P a (a - y)$

$dE = -4\pi^2 P a y\, dy$

Taking the integral, observing that

E = 0 when $y = a$ $\quad E = 2\pi^2 P a (a^2 - y^2)$

$V = \pi P (a^2 - y^2)$

$S : V :: E : G$

Hence, $G = \pi^2 P (a+y)(a^2-y^2)$. (1_1)

Now, it has been shown by Weisbach and "Des Ingenieurs Taschenbuch," that the moment of friction of plane pivots is to the moment of friction of conic as "*sin* α," to 1. But

$$\frac{1}{\sin \alpha} = \sqrt{\left(1 + \frac{h^2}{a^2}\right)};$$

α denoting the angle included between the axis and side of the cone, and h the hight of cone.

If G denote the grinding effect of conical plates, we shall have

$$(2_1) \qquad G_1 = \pi^2 P \sqrt{\left(1 + \frac{h^2}{a^2}\right)} (a+y)(a^2-y^2),$$

Making $a = 1$, and $y = \frac{1}{3}$, and $h = \frac{a}{2}$, and substituting these values in equations (1_1) and (2_1), and we shall have, regarding π^2 P a unit.

$G = 1{,}1852$

and $G_1 = 1{,}3251$.

Thus we find the grinding effects, in fact, of the ring formed plates, as practically applied in grinders and amalgamators, to be as follows: That of

(7) Plane plates.....1,1852
(8) Conical plates.....1,3251
(9) Tractoroidal plates.....1,7778

These results differ from those obtained by the formulas of the authors cited. See (4), (5) and (6), for the moments of friction of pivots of different forms. The reason will more clearly appear from the following: They have taken it for granted that one part of the plate does not impede nor increase the moment of friction of any other portion.

On this hypothesis conceive of the plane plate (C) of the same weight and dimensions as plate (B), to be made up of an indefinite or infinite number of independent rings of equal thickness. Let each ring be revolved independently of the others once about its axis, and its grinding effect measured in the stationary plate. It is now evident that each ring will wear into the stationary plate proportional to its weight, which is also proportional to the radius of the ring revolved. The outer ring will wear into the plate to the same depth, or produce the same grinding effect as the outer ring in plate (A); and as each inner ring will wear into the plate proportional to its radius, a cone will be formed or left in the stationary plate whose radius and hight is equal to the radius and hight of the outer ring. Now, as the contents of a cone are equal to one-third the contents of the circumscribing cylinder, it follows that the two-thirds worn away, or into the stationary plate, express the grinding effect of plate (C). Now, as the grinding effect of plate (A), as also of the tractory plate, is taken as the unit (1,0000), the grinding effect of plate (C) is $\frac{2}{3}$ or (.6667).

The same result as obtained by the authors cited. Adopting the same *unit* as taken in the Hand Book, and also by Mr. Goodyear, and we have the same result as found on page 107 of the Hand Book, to wit: $\frac{4}{3}$, or (1,3333) for the relative grinding effect of plane plates, increasing in hardness from the center to the circumference in the ratio of the increase of the radius. Mr. Goodyear correctly obtains the grinding effect of the ring of this plate, to wit: (1,2839), and I congratulate him on his success in discovering and exposing the school-boy error in the Hand Book. In his grapple with the problem of the grinding effects of "Randall's Patent Grinding Plates," his locks appear to have been shorn. With great dexterity, however, he breaks his hold, and the ease and grace with which he then glides over this heavier and firmer-set problem, recall to mind the classic lines of Pope:

"When Ajax strives some rock's vast weight to throw,
The line, too, labors, and the words move slow;
Not so when swift Camilla scours the plain,
Flies o'er the unbending corn and skims along the main."

But personally I have no reason to complain of his results, for he has given these plates more credit than they deserve, in finding their relative grinding effect to be (1,4444).

Let us take three views of the grinding effects of these plates:

1st. Conceive the relative hardness of the two rings of which they are composed to be such that neither ring will impede nor increase the grinding effect of the other; then the inner radii of the respective rings being $\frac{1}{3}$ and $\frac{2}{3}$ and the outer radii $\frac{2}{3}$ and 1, and we shall have by formula (1_1) (1,2591).

2d. Conceive the relative hardness to be such that the weight of the inner ring rests entirely upon the outer ring, and we shall have by formula (1_1) 1,4815.

3d. Let the hardness (as given in the Hand Book) of the outer ring be three times as great as that of the inner. In this case it will appear by investigation that a portion of the weight of the inner ring rests upon the outer ring. In the analysis of this problem it will be found that the outer ring, independent of the inner, produces $\frac{25}{27}$ of effect; by this additional weight, $\frac{5}{27}$ of effect, and that the inner ring produces $\frac{6}{27}$ of effect, making in all $\frac{36}{27}$ of grinding effect, which expressed decimally, is 1,3333.

Recapitulating, we find the grinding effects of various forms and kind of grinding plates to be, for—

Plane plates entire.....1,0000
Conical plates entire.....1,1180
Tractory plates entire.....2,0000
Plane plates entire increasing in hardness, etc.1,3333
Plane plates, ring form.....1,1852
Conical plates, ring form.....1,3251
Tractory plates, ring form.....1,7778
Plane plates, ring form, increasing in hardness.....1,2839
"Randall's Patent Grinding Plates".....1,3333

Mr. Goodyear finds for—

Plane plates entire.....2,000
Conical plates entire.....2,000
Tractory plates entire.....2,000
Plane plates entire, increasing in hardness..1,333
Plane plates, ring form.....1,778
Conical plates, ring form.....1,778
Tractory plates, ring form.....1,778
Plane plates, ring form, increasing in hardness.....1,284
"Randall's Patent Grinding Plates".....1,444

Here the figures are, for what they are worth.

Mr. Goodyear would show by his, that a plane plate of uniform hardness will grind fifty per cent. more than a plate of the same size and weight and hardness at the circumference, and which decreases in hardness toward the center, in the ratio of the decrease of the radius. This, in effect, is saying that the harder the center the greater will be the grinding effect of the plate. Let him but make the experiment. Let the center of the plate be as hard as diamond, if he will, and let the hardness decrease toward the circumference, where it shall not exceed that of lead. Let him run this upon a similar plate, measure the result and compare it to the figures with which he has heralded himself to the public. Indeed, his figures, as clearly shown, for the most part are wrong—wrong, not as to any slip of the pen, but radically wrong. He cannot give a reason, nor point to a single authority, to support his deductions. The facts, as well as the authorities, are all against him. He tells us that the entire plate of any of the forms considered, will grind more than the corresponding ring-plate of the proportions given, which I have proven by the authorities and demonstration to be a mistatement.

He tells us that the plane plate of uniform hardness will grind more than "Randall's Patent Grinding Plates," which statement is doubly refuted.

He tells us that "tractory conoidal plates possess no advantages over plane circular ones, so far as their grinding effect is concerned." Opposed to which solitary assertion stand Rankine, Weisbach, "Des Ingenieurs Taschenbuch," and proof positive.

He tells us that "*none* of the forms considered possess any advantages above any of the others in their grinding effect." And I choose to believe that he is honest. It is said that Nature distributes her gifts more equally than we are wont to believe. So, perhaps in this case, the great goodness of heart ought to be taken as an apology for the errors of the head. Indeed, there is no attribute of spirit known to mortals more divine than that which would raise the *lowly* and *downcast* up to the hights of the most exalted.

The *poor old flat and conical-bottom pans*, which the world is giving the cold shoulder, find one friend left ready to sacrifice his reputation for their good name—a friend that would take them from their obscurity and elevate them to an equality with the tractory-formed "Excelsior."

Knight never drew sword in a more unequal contest, than has Mr. Goodyear against *stubborn facts*. But, hold! I hope, after all his parade and marshaling of his columns of figures, and hurling, defiantly, "*fallacies*" in my teeth, that I do not discover the *white feather*. No! either go down with sword in hand, or yield bravely.

But what means this? "But," says Mr. Goodyear, "it is important to observe that in order that the plates of uniform hardness should have the same pressure at the circumference as plates whose hardness varies as the radius, it is necessary that in the former case the plates themselves should be heavier than in the latter; since in the first case the pressure *increases* from the circumference toward the center, while in the latter it is constant." Again he says: "With the increased weight of the plates, under these conditions is connected of necessity an increase in the *power* required to drive them at an equal speed." Why, let it be asked, did he not state this premise, before giving the relative grinding effects of differently formed plates, and giving those results as though the plates compared were all of the same weight, each to each? But if these plates, the grinding properties of which he has been seeking, are to be of different weights, why has he not shown what the weights are?

It is no where shown, from first to last, that the plates were to be of different weights. The radius of each in the discussion was taken at a, and pressure or hight at the circumference P, for which in each case, in all his formulas, *unit, one* (1) was substituted. If the plates are to be of different weights, then what has he done, not having given those weights, either absolutely or relatively? His figures, by his own showing, are *meaningless*. He might just as well have taken a handful of any other figures indiscriminately and offered them to the public as the results of his solutions of the problems of grinding plates, or have cut the cards or thrown the dice. This is in keeping, though less scientific, with the mode in which Phœnix determined the "*exact time*" in his famous "military survey and reconnoissance." It is worse than *jargon*—Babel, I had almost said, nonsense in folio hound in opossum. Then, again, why lug in power? *Power* was not the subject of discussion, but effect—the *grinding effect of plates of different forms, but of the same size and weight*. And on this proposition Mr. Goodyear attempted to criticise the Hand Book. No mention in that work is made of *power* in *connection* with *grinding effect*. It requires no demonstration to prove that it takes more *power* to reduce *ten tons* of rock, than it does to reduce *one* to the same degree of fineness, from the same condition at first. Any school-boy can tell us that, saying nothing of practised miners and mechanics. What was claimed, and is claimed, and is true, is that the tractory-formed pan will do very much more work than either the flat or conical pan of the same weight. And, I will now add, do the same amount of work at a less expense of *power*.

Mr. Goodyear could not possibly have misunderstood the proposition, and he cannot now pass the threshold of either door at which he seems to be looking, to-wit: "POWER," and THE DIFFERENCE IN WEIGHT OF THE PLATES. On page 210 of the MINING AND SCIENTIFIC PRESS, he formally announced, "*conclusion*." This, then, was "the be-all and end-all" of his discussion.

In conclusion, I hope the reader will find that I have said nothing herein with any unkind feelings; "nor set down aught in malice." I am conscious of but having done my duty to myself and to my partner, Mr. Zenas Wheeler; to the manufacturers of the tractory-formed pans, Messrs. H. J. Booth & Co., the Golden State Iron Works, Miners' Foundry, San Francisco Foundry, Prescott & Schiedel, Oregon Iron Works, the Ætna Iron Works, and to the public. I have but expressed my honest convictions, deduced by no little labor; and, as the boy remarked when he threw the Bible at his brother's head, "If he cannot stand before the word of truth, let him fall." Personally toward Mr. Goodyear I entertain the kindest of feelings, and the utmost of respect. I have met him, and believe him to be a gentleman and scholar; scholar, especially in abstract mathematics, of no ordinary abilities and acquirements.

SAN FRANCISCO, April 20, 1866.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD

Friday, April 20.

AFTERNOON SESSION.

4 shs Crown Point at 1300 per fool, 30 d.
165 shs Ophir at 760@770 per foot.
72 shs Ophir at 770@765 per foot, s 3.
24 shs Ophir at 780@790 per foot, b 30.
12 shs Ophir at 770 per foot, b 3.
6 shs Chollar-Potosi at 310 per foot, s 5.
24 shs Chollar-Potosi at 305@315 per foot.
2 shs Chollar-Potosi at 305@307½ per ft, s 3.
14 shs Yellow Jacket at 760@770 per foot.
1 sh Yellow Jacket at 770 per foot, b 3.
8 shs Belcher at 340@350 per foot
2 shs Belcher at 345 per foot, b 3.
50 shs Exchequer at 10 per share.
20 shs Overman at 76@76 per ft.
20 shs Overman at 75 per foot, s 30.
20 shs Overman at 75 per ft, b 30.
5 shs Overman at 77 per sh, b 10.
20 shs Imperial at 152@147 per share.
10 shs Imperial at 150 per share, b 3.
50 shs Imperial at 145 per share, s 20.
15 shs Imperial at 147 per share, s 30.
Amount of sales.....$ 69,834 00

Saturday, April 21.

5 shs Savage at 1100@1105 per foot.
163 shs Ophir at 760@772½ per foot, s 3.
60 shs Ophir at 775@765 per foot, s 5.
72 shs Ophir at 800@795 per foot, b 30.
120 shs Ophir at 782½@785 per foot.
36 shs Ophir at 782½@780 per foot, b 3.
12 shs Ophir at 770 per foot, s 10.
5 shs Yellow Jacket at 800@810 per ft, b 30.
3 shs Yellow Jacket at 78 @790 per ft.
1 sh Yellow Jacket at 795 per foot, s 30.
2 shs Yellow Jacket at 790 per foot, s 3.
4 shs Crown Point at 1375 per foot, b 30.
8 shs Crown Point at 1350@1350 per foot.
37 shs Chollar-Potosi at 315@322½ pr ft.
17 shs Chollar-Potosi at 317½@320 per ft, s 3,
3 shs Chollar-Potosi at 320 per foot, s 10.
25 shs Chollar-Potosi at 325@360 pr ft, b 30.
2 shs Belcher at 310 per foot.
16 shs Belcher at 310 per foot, s 3.
1 sh Belcher at 340 per foot, s 5.
2 shs Hale & Norcross at 910 per loot, s 10.
84 shs Daney at 15@15 per foot.
4 shs Alpha, G H, at 415 per foot, s 30.
5 shs Imperial at 149 per share, s 3.
5 shs Imperial at 119 per shars.
60 shs Overman at 78@72½ per ft.
10 shs Overman at 77 per foot, b 20.
20 shs Exchequer 10 per share.
100 shs Exchequer at 10 per share, s 3.
27 shs Bullion at 115@114 per share.
39 shs Confidence at 34½@35 per share.
4 shs Empire M & M Co. at 195 pr sh.
Amount of sales.....$ 92,169 00

Monday, April 23.

402 shs Ophir at 775@755 per foot.
36 shs Ophir at 775@770 per foot, b 30.
24 shs Ophir at 765 per foot, b 10.
24 shs Ophir at 750 per foot, s 30
72 shs Ophir at 752½@755 per foot, s 3.
5 shs Yellow Jacket at 800 per foot, b 3.
6 shs Yellow Jacket at 800 per foot, b 20.
1 sh Yellow Jacket at 795 per foot, s 15.
7 shs Yellow Jacket at 830 per foot, b 5.
22 shs Yellow Jacket at 790@800 per foot.
2 shs Yellow Jacket at 810 per foot, b 30.
4 shs Yellow Jacket at 790 per foot, s 30.
15 shs Chollar-Potosi at 322½ per foot, b 3.
25 shs Chollar-Potosi at 322½@325 per foot.
5 shs Chollar-Potosi at 323 per foot, s 3
5 shs Belcher at 347½@340 per foot.
6 shs Belcher at 345@340 per foot, s 3.
1 sh Belcher at 352½ per foot, b 50.
1 sh Belcher at 350 per foot, b 3.
210 shs Overman at 80@85 per foot.
75 shs Overman at 84@85 per foot, b 10
40 shs Overman at 86 per foot, b 15.
25 shs Overman at 86 per sh, b 30.
10 shs Overman at 85 per ft, s 10.
15 shs Overman at 84 per sh, b 3.
5 shs Segregated Belcher at 15 der sh.
20 shs Exchequer at 10 per share, s 5.
90 shs Exchequer at 10 12½@10¼ per sh.
25 shs Exchequer at 10¼ per share, b 5.
1 shs Confidence at 35 per share.
15 shs Bullion at 110 per share.

AFTERNOON SESSION.

24 shs Chollar-Potosi at 325@340 per foot.
25 shs Chollar Potosi at 340@338 per ft, s 30.
2 shs Hale & Norcross at 950 per foot.
10 shs Yellow Jacket at 795@790 per foot
2 shs Yellow Jacket at 785 per ft, s 30
48 shs Ophir at 753@750 per foot, s 3.
12 shs Ophir at 755 per foot, b 10.
48 shs Ophir at 750 per foot.
120 shs Ophir at 750 per foot. b 3.
12 shs Ophir at 770 per foot, b 30.
1 sh Belcher at 360 per foot.
15 shs Confidence at 33 per share.
70 shs Overman at 81½@85 per foot.
10 shs Overman at 85 per share, b 30.
70 shs Exchequer at 10¼ per share, b 3.
10 shs Sierra Nevada at 7 per share.
20 shs Baltimore Americas at 10 pr ft.
5 shs Bullion at 105 per share.
Amount of sales.....$149,892 00

Tuesday, April 24.

528 shs Ophir at 445@730 per foot.
132 shs Ophir at 750@725 per foot, b 15.
24 shs Ophir at 730 per foot, s 3.
120 shs Ophir at 720 per foot, b 3.
60 shs Ophir at 720 per foot, s 30.
60 shs Ophir at 740 per foot, b 30.
10 shs Chollar-Potosi at 325@325 per foot, s 3.
3 shs Chollar-Potosi at 335 per loot, s 3.
4 shs Crown Point at 1110 per foot, 30 d.
4 shs Crown Point at 1240 per foot, b 5.
4 shs Crown Point at 1353 per ft, b 3.
16 shs Crown Point at 1330 per foot, s 30.
6 shs Yellow Jacket at 780@777½ per foot
5 shs Yellow Jacket at 780 per foot, s 3.
4 shs Alpha, O. H, at 410 per foot.
8 shs Alpha, G. H., at 415@420 per ft, s 3.
1 shs Savage at 1150 per foot, b 50.
4 shs Gould & Curry at 900 per ft, b 30.
1 shs Gould & Curry at 875 per foot.
105 shs Exchequer at 10 12½@10¼ per share.
25 shs Overman at 81½@80 per foot, b 30.
10 shs Overman at 77@78 per foot, b 3.
55 shs Overman at 78@79 per sh, b 10.
30 shs Overman at 78 per sh.
35 shs Overman at 78 per sh, s 10.
5 shs Imperial at 149 per share, s 10.
20 shs Confidence at 28 per share.
5 shs Bullion at 102½ per share.
10 shs Bullion at 100 per share, s 30.

AFTERNOON SESSION.

192 shs Ophir at 745@737½ per foot.
144 shs Ophir at 735@740 per foot, s 30.
12 shs Ophir at 740 per foot, s 3.
48 shs Ophir at 760 per foot, b 30.
24 shs Ophir at 745 per foot, b 3.
1 sh Savage at 1125 per foot.
5 shs Yellow Jacket at 880@790 per ft.
1 sh Yellow Jacket at 880 per foot, b 30.
6 shs Belcher at 340 per foot.
9 shs Belcher at 315 per foot, b 3.
2 shs Chollar-Potosi at 337½ per foot.
10 shs Exchequer at 10 per foot, s 3.
10 shs Sierra Nevada at 6½ per share, s 3.
5 shs Overman at 78 per foot, b 3.
15 shs Overman at 81 per share, b 30
22 shs Ogerman at 79@80 per foot
51 shs Overman at 80 per foot, b 10
20 shs Imperial at 130@148 per share, a 10.
5 shs Imperial at 148 per share, b 5.
5 shs Confidence at 32 per share, b 5.
Amount of sales.....$133,691 00

Wednesday, April 25.

223 shs Ophir at 745@737½ per foot.
24 shs Ophir at 740 per foot, b 3.
24 shs Ophir at 745@942½ per foot, b 10.
36 shs Ophir at 740@737 per foot, s 3.
24 shs Ophir at 735 per foot, s 30.
24 shs Ophir at 737½737 per foot, s 5.
12 shs Ophir at 740 per foot, b 5.
4 shs Gould & Curry at 875 per foot.
4 shs Gould & Curry at 900 per foot, b 30.
47 shs Chollar-Potosi at at 321½@330 per ft.
35 shs Chollar-Potosi at 335@310 per ft, s 30.
4 shs Chollar-Potosi at 315 per foot, b 3.
6 shs Hale & Norcross at 950@070 per ft.
2 shs Hale & Norcross at 975 per foot, s 3.
40 shs Daney at 9 per foot.
10 shs Yellow Jacket at 800@327½ per foot.
2 shs Yellow Jacket at 825@810 per ft, s 3.
4 shs Yellow Jacket at 840 per foot, b 30.
1 sh Yellow Jacket at 830 per foot, b 3.
1 sh Yellow Jacket at 820 per foot, s 30.
8 shs Alpha, G H, at 400@405 per foot.
4 shs Belcher at 350 per foot, b 30.
2 shs Belcher at 312½@335 per foot.
1 sh Belcher at 340 per foot, s 3.
1 sh Belcher at 335 per foot, s 10.
35 shs Sierra Nevada at 6½ per share.
5 shs Bullion at 100 per share.
31 shs Overman at 78@79 per foot.
5 shs Overman at 81 per ft, b 30.
120 shs Exchequer at 10 12½ per share.
5 shs Imperial at 147 per share.
15 shs Confidence at 30 per ft
$5,000 Legal Tender Notes at 79½o.

AFTERNOON SESSION.

60 shs Ophir at 737½ per foot.
48 shs Ophir at 740 per foot, b 3.
48 shs Ophir at 740 per share.
12 shs Ophir at 740 per foot, b 5.
12 shs Ophir at 735 per foot, s 30.
1 sh Yellow Jacket at 815 per foot.
5 shs Yellow Jacket at 820 per foot, s 3.
1 sh Yellow Jacket at 820 per foot, s 10.
5 shs Yellow Jacket at 820 per foot.
4 shs Yellow Jacket at 830 per foot, b 30.
1 shs Yellow Jacket at 820 per foot, b 3.
2 sh Yellow Jacket at 315 per foot, s 30.
1 sh Yellow Jacket at 810 per foot, s 30.
6 shs Yellow Jacket at 815 per foot.
1 sh Yellow Jacket at 815 per foot, s 5.
1 sh Savage at 1105 per foot, s 30.
1 sh Savage at 1100 per foot, b 5.
7 shs Chollar-Potosi at 315 per foot.
20 shs Chollar-Potosi at 315 per foot, b 30.
20 shs Chollar-Potosi at 310 per foot, s 30.
5 shs Chollar-Potosi at 312½ pr ft b 10
15 shs Chollar-Potosi at 310 per foot
5 shs Chollar-Potosi at 320 per foot, b 30.
5 shs Chollar-Potosi at 311 per foot.
3 shs Chollar-Potosi at 312 per foot, s 3.
30 shs Chollar-Potosi at 312 per foot.
5 shs Chollar-Potosi at 311 per foot, s 30.
1 sh Belcher at 325 per foot.
1 sh Belcher at 340 per foot, b 30
4 shs Gould & Curry at 890 per foot.
20 shs Exchequer at 10 per share.
15 shs Overman at 79 per foot, s 3.
5 shs Overman at 79 per sh, b 5.
5 shs Overman at 78 per share, s 5.
10 sbs Imperial at 146 per share.
5 shs Imperial at 144 per share, s 10.
Amount of sales.....$209,824 00

Thursday, April 26.

72 shs Ophir at 735 per foot.
12 shs Ophir at 732½ per loot, b 5.
36 shs Ophir at 7.2½ per foot.
24 shs Ophir at 735 per foot, b 5.
24 shs Ophir at 732½ per foot, s 4.
48 shs Ophir at 730 per foot, s 30.
24 shs Ophir at 730 per foot, c.
12 shs Ophir at 727½ per foot, c.
40 shs Chollar-Potosi at 310 per ft, s 3.
7 shs Chollar-Potosi at 312 per foot.
5 shs Chollar-Potosi at 314, b 3.
10 shs Chollar-Potosi at 315 per foot.
7 shs Chollar-Potosi at 316 per foot, b 3.
12 shs Chollar-Potosi at 317@318 per foot.
5 shs Chollar-Potosi at 315 per foot, s 30.
2 shs Chollar-Potosi at 319 per foot, s 3.
14 shs Chollar-Potosi at 320@316, s 30.
156 shs Daney at 8 per foot.
8 shs Hale & Norcross at 975 per foot.
1 sh Yellow Jacket at 845 per ft
5 shs Yellow Jacket at 810 per foot, c.
2 shs Yellow Jacket at 805 per foot, s 5.
1 shs Yellow Jacket at 805 per foot.
1 sh Yellow Jacket at 800 per foot, b10.
1 shs Yellow Jacket at 790 per ft, s 5.
1 sh Yellow Jacket at 785 per foot, s 5
2 shs Yellow Jacket at 790 per foot
1 sh Yellow Jacket at 780 per foot.
1 sh Yellow Jacket at 785 per foot, b 10.
1 sh Yellow Jacket at 780 per foot, s 10.
3 shs Belcher at 325@320 per foot.
4 shs Alpha, G H, at 350 per fool, b 30.
4 shs Gould & Curry at 900 per foot, b 20.
10 shs Imperial at 140@144 per share.
10 shs Imperial at 144@143 per sb. s 3.
5 shs Imperial at 143 per share, b 5.
5 shs Imperial at 142 per share, s 3.
5 shs Imperial at 142 per share, s 5.
2 shs Overman at 77½ per sh.
10 shs Overman at 79 oer share, b 3.
13 shs Overman at 78 per sb.
3 shs Overman at 80, b 10.
65 sds Overman at 81 per share, b 30.
25 shs Overman at 79@79½ per sh, b 6.
10 shs Overman at 78 per share, s 30.
5 shs Overman at 80, b 30.
5 shs Overman at $75, b 5.
5 shs Overman at $78, s 5.
40 shs Exchequer at 10 per share.
2 shs Bullion at 95 per share.
10 shs Bullion at 90 per share, b 30.
5 shs Bullion at 80 per share, s 30.
6 shs Confidence at 30@28 per share.
5 shs Confidence at 25 per share, s 30.

AFTERNOON SESSION.

204 sbs Ophir at 705@725 per foot.
2.0 shs Ophir at 700@720 per foot, s 30.
24 shs Ophir at 725 per foot, b 3.
12 shs Ophir at 705 per foot, b 2.
35 shs Ophir at 705 per foot, s 3.
1 sh Savage at 1070 per foot, s 5.
2 shs Savage at 1060@1050 per foot, s 30.
1 sh Savage at 1050 per foot.
1 sh Savage at 1060 per foot, b 3.
16 shs Hale & Norcross at 975 per foot.
12 shs Yellow Jacket at 775@755 per foot.
1 shs Yellow Jacket at 780 per foot, s 20.
12 shs Chollar-Potosi at 315 per foot.
10 shs Chollar Potosi at 314 per foot, s 30.
5 shs Chollar-Potosi at 315 per foot, s 5.
5 shs Chollar-Potosi at 322½ per foot, b 30.
2 shs Chollar Potosi at 316 per foot, b 3
17 shs Chollar-Potosi at 316@317½ per foot.
4 shs Crown Point at 1260 per foot.
10 shs Bullion at 32½@30 per share, s 3.
10 shs Bullion at 75 per share, s 30.
10 shs Bullion at 95½ per share, b 30.
45 shs Overman at 77@78 per share.
30 shs Overman at 75@78 per share, s 5.
20 shs Overman at 78, b 5.
10 shs Overman at 80, b 50.
20 shs Overman at 78, b 3.
5 shs Overman at 72, s 3.
3 shs Empire M & M Co. at 185 pr sh.
15 shs Confidence at 27 per share.
26 shs Imperial at 130@140 per share.
5 shs Imperial at 140 per share, s 3.
100 shs Exchequer at 9½ per share.
Amount of sales.....$193,989 00

Friday, April 27.

572 shs Ophir at 710@700 per foot.
24 shs Ophir at 715@725 per foot, b 50.
120 shs Ophir at 705@710 per foot.
96 shs Ophir at 715@720 per foot.
24 shs Ophir at 720 per foot, s 10.
45 shs Imperial at 137½@139 per share.
10 shs Yellow Jacket at 785@000 per foot.
1 sh Yellow Jacket at 790 per foot, s 30.
5 shs Savage at 1050 per foot.
1 sh Savage at 1155 per foot, b 10
15 shs Chollar-Potosi at 305@310 per ft, s 30.
10 shs Chollar-Potosi at 320 per foot, b 30.
34 shs Chollar-Potosi at 315@315 per foot.
4 shs Belcher at 315@310 per foot.
10 shs Confidence at 27½ per sh, s 30.
10 shs Empire M & M Co at 180 per sh.
107 shs Overman at 77@78 per share.
35 shs Overman at 81@81 per share, b 30.
44 shs Bullion at 80@76 per share.
20 shs Bullion at 76@76 per share s 50.
10 shs Bullion at 80 per share, b 30.
10 shs Sierra Nevada at 5¾ per share.
Amount of sales.....$ 87,120 00

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, April 28, 1866.

No unusual requirement exists for money. The market is easy. Bankers loan to their customers at 1@1¼ ₱ cent. per month, and mortgage loans are negotiated at 1@1¼ ₱ cent., with occasional transactions at lower rates. Short loans on the street are governed by the necessities of the borrower and the character of his collaterals, ranging sometimes as high as 2½ ₱ cent., but not often exceeding 1½@2 ₱ cent. Whatever may be thought of the risk of investments for which such rates are demanded, it is quite certain that the money lender is generally well secured, and seldom loses. The better class of mining shares continues to be accepted by capitalists as the basis of loans, but upon those of less prominence accommodations are obtained with difficulty. The supply of capital is fully equal to the demand, and thus far there are no indications of the stringency sometimes prevalent at this period of the season.

The treasure product of some portions of this State and Nevada is increasing, and the receipts from all sources since the date of our last reference amounted to $1,050,000, making an aggregate of $3,750,000 thus far during the current month.

Bullion is in good supply, and the demand not active. Gold bars have been taken to account by bankers and others this week at 840@850, and silver is ranging at ¾@1 ₱ cent. premium for average grades.

The Mining Share market presents a less cheerful view than at the close of last week, and nearly every stock on the list has been sold at a decline. So far as we can learn, this depression has not been occasioned by any unfavorable developments, but is rather owing to a disposition to realize profits made recently. The advance in most stocks over prices ruling a few months since, even at present prices is so very considerable, that many parties think it will not be difficult to enter the market again as buyers at a more opportune moment.

Crown Point has been inactive and dull, declining from $1,375 to $1,310, at 30 days, rallying to $1,330, seller 30, and then selling at $1,260. Advices continue favorable. During the week ending 20th instant, 725 tons of ore were extracted from the mine. Preparations are being made to sink the south incline from the 3d level. In the north incline little has been done recently, owing to water. The main shaft is now down 390 feet. Receipts of bullion thus far the current month have amounted to some $68,000.

Savage rose from $1,100 to $1,150, buyer 30, and $1,125 cash, then sold at $1,100, and was dealt in yesterday at $1,050@1,040. During the week ending 21st inst., 400 tons of ore were hoisted to the surface, as follows: 24 tons 1st class, 270 tons 2d class, and 106 tons 3d class. A well concentrated body of ore has now been reached in the 6th level. The North Potosi chimney is still yielding considerable ore, and is said to promise well for the future. The sinking of the old or main shaft is progressing, and the timbers have been placed in the Curtis shaft for the 1st station. Contracts have been made to sink the two southern compartments in the latter shaft at $10 per foot, and to sink the former will cost $11 per foot. The company's mill reduced 226 tons of ore last week.

Hale & Norcross is in better favor, advancing from $940 to $975, and closed yesterday at $950. The incline from the 700-feet level is down 65 feet, and the drift east from the 535 feet level is in some 290 feet. From the 700-feet level in stoping up to the 7th floor, the mine is thought to look as well as ever. The company have at present enough money at their credit for the payment of a dividend for the current month, and are hoisting some 50 tons of ore per day, averaging $40 per ton.

Gould & Curry fell to $875, rallied to $890 and $900, buyer 30, and was held at the close at $875. The drift running west from the north branch on the 2d station (below the tunnel) is now in 25 feet in quartz, and its quality seems to be improving, but as yet no ore is found. At the end of the south drift, 2d station, a winze is being raised to connect with the 100 feet level, where it is thought ore will be met with. At this point also there is a large body of quartz. Both of the drifts from the 4th station are in quartz, more or less interspersed, however, with parphyry.

Yellow Jacket rose from 780 to $800, fell to 777½, advanced to $825, declined to $780, and sold yesterday at $785@805. During the week ending April 9th, 978 tons of ore were extracted from the mine, and for the same period the receipts of bullion were $22,286.48. Drifting continues east from the bottom of the central or old shaft at a depth of 520 feet, and it is thought that a body of ore will soon be reached. The south mine is said to look well.

Ophir was dealt in to the extent of 388 feet, advancing from $760 to $800, buyer 30, receding to $720, rallying to $750, then dropping to $705, and closing yesterday at $725@710. The body of ore in the 9th gallery, so far as developed, extends 45 feet to the north, and at one point is 45 feet in hight. A fine show of ore is said to exist in the 6th gallery, a short distance west of the old workings, and about 60 feet south of the Mexican line. The face of the opening on the south side is all in pay ore, interspersed with very rich streaks. This deposit is supposed to be the upward continuation of the body found in the 9th gallery, and is likely to prove a valuable addition to the resources of the mine. From the 1st to the 16th instant, 363 tons of low grade ore were crushed at the Atlas mill, yielding $10,088, and during a like period 418 tons same quality of ore reduced at the Woodworth mill yielded $13,207. The better class of ores, from which this selection was made, have been sent to the Central Mill and the Washoe Reduction Works, for treatment by the Freyberg process. The aggregate receipts of bullion thus far the current month exceed $92,500.

Chollar-Potosi has been more active than for some time past, and some 600 feet were sold, advancing from $315 to $340, declining to $310, rallying to $320, and selling yesterday at $305@310.

In the Bajazette Ground they have broken through into old workings without finding ore, but in lower stope a fair quality of ore is being taken from a seam four feet wide. In the stope over head of incline there is no change of a favorable character. From the Belvidere shaft it is thought that considerable good ore can soon be taken. The drift from the 1st station, new shaft, is in 265 feet, and from the second 15 feet. During the week ending 20th instant, 868 tons of ore were sent to custom mills.

Alpha steadily declined from $415 to $350, and sold yesterday at $335. An assessment of $50 per share ($200 per foot) was levied April 24th. Belchor is also lower, declining from $350 to $320, and then selling at $310@312½.

Empire Mill and Mining company receded from 195 to $180, and closed at $175. The damage to the main shaft of this mine by the late fire has proved much greater than was anticipated. The portion below 1st level (where the fire occurred) having been so much injured by the effects of the water settling the earth around it, breaking in its sides, etc., as to make retimbering for a distance of 200 feet necessary. This work we are informed will be completed by the 1st proximo, when operations in the lower levels will be recommenced and vigorously prosecuted. The ores taken from the upper level have been sufficient to meet all current expenses, and are reported improving in quality.

Imperial is in less favor, receding from $149 to $139, and selling yesterday at $139. The third clean-up this month of the Rock Point mill amounted to $16,367, making the aggregate receipts since the 1st instant $40,634.

Bullion steadily declined from $115 to $75, seller 30, and then sold at $70. Overman has been dealt in within a range of $72½@84, closing at $78. Confidence fell from $35 to $27, and closed at $26 bid.

The total recorded sales of Stocks since Saturday last, inclusive, amounted to $993,522.

Mining Summary.

CALIFORNIA.

NEVADA COUNTY.—The Hartery Company will probably commence crushing rich rock during next week. The new mill is said to work to perfection. This claim is only a short distance from the Alison Ranch.

The Lone Jack Co. are down on the incline 531 feet, and ten feet into the ledge. They are taking out rock that will pay seventy-five dollars per ton.

Several new discoveries have been recently made in the vicinity of these two mines.

Mr. H. Mitchell, of Grass Valley, has paid $11,800 for two shares and three-quarters in the Stockbridge mine.

A party of prospectors, the other day, found a well defined quartz lode, from 12 to 14 feet thick and showing some gold, six miles from Nevada City, and two miles from any previous workings. They were to commence sinking a shaft at once.

A bar of gold, from the Lost Hill claims, weighing 317 ounces, and worth $6,042, is spoken of by the Nevada *Gazette*.

Reports from the Excelsior district sum up as follows: Sdow seven feet deep, rapidly melting. All are making active preparations to commence work at the earliest possible moment. The one hundred and fifty people who wintered at Summit City has now increased to four hundred. The Enterprise mill is now working—they have struck richer ore than ever.

The Nevada *Transcript* of April 20th, says, in regard to the mines at Snow Point, three and a half miles above Moore's Flat:

The Star Company, Junietta and one or two others in that vicinity, are running tunnels and sinking shafts. Some of the rock taken out of these claims, it is believed, will pay $40 or $50 per ton. The Knickerbocker Company, on North San Juan Hill, struck dirt on Monday last which is perfectly yellow with gold. At Buckeye Hill, in the Birchville mining district, three-twentieths of the Evans & Co.'s claims was sold on Monday last by Joseph Grant to Michael Murphy and Denuis Ryan for the sum of $7,000 in gold coin.

PLACER COUNTY.—The Pacific silver ledge, near Ophir, is held at higher prices. Mr. Hathaway refused $6 per foot for his interest the other day. Most of the shareholders, at present, are San Francisco men. They intend to prosecute the work of developing the mine with energy.

The *Stars and Stripes* says:

The Hathaway ledge is situated near the Pacific, and shows every indication of being equal to the latter in value, and that the Gold Blossom is in the same range with the Pacific, Hathaway and Ad Valorem silver ledges, situated near Ophir, and is without a doubt as rich as any of them. A careful assay from this mine returned at the rate of $286 in gold and silver to the ton. The ledge, at the depth of thirty feet, is from two and a half to six feet in width, being widest toward the eastern end.

A number of gold quartz claims in the vicinity of Auburn have been sold to parties in New York city.

Reamer's mill—for cement crushing—on the Big Spring Co.'s ground, between Forest Hill and Todd's Valley, is to be increased in capacity from thirty to sixty stamps.

The Dutch Flat *Enquirer* says, in regard to mines at Gold Run:

Among the most prominent claims we visited, may be enumerated the Cedar, owned by Messrs. Brogan, Johnson and others; Home Ticket, owned by Captain Rathburn and G. L. Slocumb; Perseverance, owned by Messrs. Hunger, Robins and Bartlett, and the Huycks' claims. The Cedar recently cleaned up $600, the result of twenty days' washing, while the others we have mentioned will yield each, on an average, about $100 per day. It is also a well established fact that the celebrated blue cement lead, found in the vicinity of You Bet and Red Dog, passes directly through these claims.

CALAVERAS COUNTY—COPPER.—The "Inimitable Copper Mining Company," whose ground adjoins that of the celebrated Union Company, have sued the latter to recover the value of 150,000 tons of ore estimated at $1,500,000; they having, as they claim, encroached upon their ground.

The shipments of ore from the Union mine, for the six days ending April 19th, amount, in total, to 1,124,070 pounds, equal to 562 tons, 70 pounds.

During the twenty days ending April 20th, the Keystone Company shipped from their mine 245 tons of No. 1 ore, and 30 tons No. 2.

Good shipping ore is now being taken out of the Empire shaft.

The Copperopolis *Courier* says:

Never since the discovery of copper in this district, have our mines looked so promising as at present. The Union and Keystone, which head the list of our valuable claims, are being placed in condition for extensive operations, and will yield immense quantities of ore the coming summer.

GOLD.—The San Andreas *Register* says that Mr. C. Thorn obtained $3 from half a pound of quartz taken from the late discovery near Willow Creek.

McGlynn's quartz mill, near San Andreas, will be completed by the 1st of May.

AMADOR COUNTY.—Another gold bearing ledge has been discovered one mile and a half above the Big Bar Bridge on the Mokelumne river.

The Keystone Mining Company are adding twenty stamps to their battery. The mine is said to be paying well.

An eight stamp mill is to be erected by Gardiner and Flahart on the bank of the creek just below the village of Jackson.

The *Ledger* of April 21st, speaks of having seen $1,082 in gold, which was the result of three days crushing, in a ten stamp mill, of rock from the lead of A. W. Rose, called the "Number One," and located near Sutter Creek.

ALPINE COUNTY.—The Rippon Company, in Silver Mountain district, have struck rock which yields at the rate of $150 per ton. They are drifting on the ledge, which becomes better defined as they penetrate the mountain.

The Monitor *Gazette* of April 21st, says:

The Mountain Company have struck a very large body of water in their tunnel, now in over 750 feet. At the delinquent sale of stock of this company on Thursday, only 72 feet were sold, and it averaged two dollars per share over the assessment.

The Pennsylvania Company have partially cut their ledge in the upper tunnel, and it shows some fine rock containing ruby and antimonial silver.

The Active Company has settled most of its indebtedness, and it is expected will soon resume operations.

The tunnel running in on the ledge of the Mowyer Mining Company is progressing finely, being now in over 40 feet, the vein of ore becoming wider and better looking as depth is attained.

The General Grant Company, in Raymond district, have cut a small spur of fine looking rock.

The *Gazette* has been shown, during the week, two assays which it thus describes:

The first is from Leopold Kuh, Virginia, of a parcel of ore from the American mine, in the upper end of the town, and shows it to contain silver $58.68, gold $4.03, total $62.71 per ton, and a large per centage of copper. The second is from Dr. Waters, of Markleville, from an average sample of an eight feet lode in the Winchester tunnel, and gives a return of silver $9.56, gold $79.37, total, $88.93 per ton.

The Buckeye No. 1, has been leased for six years to a company of New York capitalists, which is expected to expend upon it, within the next eighteen months, at least $100,000.

The Balaclava tunnel is now in ninety feet. They have a solid ledge of fine looking ore of two feet in thickness, and about two feet more of loose quartz, including a gangue next the foot wall.

TUOLUMNE COUNTY.—The stock in the Rattlesnake Quartz Mining Company, incorporated about three months ago, has been nearly all disposed of at six dollars per share. One of Moore's grinders has been purchased. Should its operation prove satisfactory, the company intends to add three more, giving them, with their present ten stamp mill, a capacity of forty stamps. Six hundred tons of custom quartz has already been tendered them for crushing.

A writer in the Tuolumne *Courier* of April 21st, gives the following items:

The boys of the old Perley claim, which is situated at American Camp, eight miles northeast of Columbia, washed up out of the tail end of their ground sluices, last week, one thousand dollars.

The prospecting shaft sunk upon the Chappral Hill Mine is now down to the depth of 135 feet, at which point the ledge is ten feet wide, and the rock looks well, and yields well in the mill. The work is superintended by Mr. Jennegan for C. T. Meader, who is thus thoroughly examining the mine with a view of purchasing. It is on the "mother lead," 2,800 feet from the Rawhide.

The American Camp Fluming Company intend to clean up their flue next week, and I hear they expect "big things." They have been running it steady ever since the rains set in.

At or near Middle Camp, about ten or twelve miles above Columbia, Messrs. John Chapman and Mark Waterhouse have lately struck "forty-nine diggings." In ten days they took out $600.

Two hundred and eighty-nine ounces were shipped to the Bay last week, by the Mount Vernon Company, at Sugar Pine.

The owners of the Moss lead, situated about five or six miles above this place, are getting out some exceedingly rich rock.

MARIPOSA COUNTY.—From the *Press* we glean the following items:

Mexicans over in the vicinity of Jimisal, in that county, last week, found a nugget of gold worth $4,550. It is one of the largest ever found in that county.

Bruce & Washburn cleaned up at their quartz mill, on Buckeye, last week, the result showing that the quartz paid an average of twenty dollars per ton.

Encouraging accounts have been lately received from Hite's Cove. The vein owned by John Hite and Wynants, continues to yield at its usual rate. They have a vein 8½ feet in thickness, and paying regularly from $60 to $80 per ton.

A writer in the Mariposa *Gazette*, speaking of the Willamette copper district, in that county, says that a vein fifteen feet in width was struck on the Brummett lode, at the depth of a few feet.

Haskell, at his works on the Chowchilla, last week, smelted, in twenty hours, 5,122 pounds of copper from the Buchanan claim.

The new furnace, at the smelting works of Henry & Co., at James' Ranch, is in operation. The operator, Desormen, turned out seventy-five pigs of copper from Sunday morning until two o'clock Monday afternoon. The furnace is a complete success, and a number of others will shortly be erected. Suediker, who is working the Green vein, is getting out the finest and richest ore in the district. A furnace will soon be erected on the ground for smelting purposes.

PLUMAS COUNTY.—The Quincy *Union* of April 14th, says:

Wood's claim has been worked for the past three months, paying on an average of $12 per day to the hand. Moulton's claims have been paying $14 per day to the hand, for the past four months. Ripple & Bohemo cleaned up, a short time since, $7,000. They expect to make another run before the winter season closes. They work but four men. Anderson & Co., are making $10 per day to the hand. The company working the "Bourbon" ground are making $8 a day. O'Brien's claim, on Lost Creek, is paying well. Mallady & Feeny, on Sly Creek, are averaging $40 per day. A majority of the miners in this locality are pretty well satisfied, so far as the profits of mining are concerned.

HUMBOLDT COUNTY.—The Humboldt *Times* of April 7th, says that Jennings' Oil Well Company have sunk their well 94 feet, and struck a hard sand rock, which yields an unmistakable show of oil. The well of the Oil Creek Company is down 170 feet, and the prospects are very encouraging. The Fortuna Company have received a large amount of machinery for the prosecution of operations on Bear river.

SIERRA COUNTY.—"A piece of gold containing a little quartz" and weighing over eighteen ounces, was recently taken from some bank diggings near Kanaka creek. The diggings are owned by John Montgomery and brother. The gold is all rough, as if recently released from the quartz ledge situated close by.

The Downieville *Messenger* of April 13th, says: Messrs. Rhodes & Murray last week commenced running a tunnel under Main street, starting in on the vacant lot between McDonald's hotel and the butcher shop.

We learn that the Monitor claim, at Sawpit Flat, is washing big pay dirt, as high as 100 ounces a day having been taken out of the main riffle.

SHASTA COUNTY.—Two men have made $13,000 during the last eight weeks, by pounding quartz in a hand mortar. They have made at the rate of about one pound of gold each daily. Their claim is some two or three miles from town. So says the Shasta *Courier* of April 14th.

TRINITY COUNTY.—The *Journal* of April 21st says that reports from all the mining localities in that region are cheering; and quotes as follows from a letter written by a trader at the Forks of the New River:

"We are beginning to show signs of life again. Thompson & Campbell have completed their ditch, conveying water on the hills below this place, and will commence sluicing in a few days. Wm. Myers & Co. have also completed their ditch, carrying water to the hills below the mouth of Virgin Creek. They have a good prospect ahead. John Keach & Co., on Pony Creek, have been at their old tricks—taking out nuggets. Keach showed me one piece of pure gold worth over $200, taken out of the hill side, one hundred and fifty yards from the creek. Wm. O'Bryan & Co. are doing well.

The miners of Douglas City have just commenced work.

One hundred and twenty ounces of gold dust from the Minersville region were sold the other day at Greenhood's bank.

SISKIYOU COUNTY.—The Yreka *Union* gives an account of a great land slide which occurred recently at Deadwood. The mountain above that place, for a distance of 120 yards in length, and nearly that in breadth, slid into the creek, making a complete dam, and backing up the water to the depth of sixty feet. Some of the claims in that vicinity were entirely covered up.

WASHOE, NEVADA.

Important movements have been made in the Mariposa Mill. The old rotery battery has been superseded by three straight batteries, of four stamps each; the pans have been altered to the Wheeler pattern, and the *Territorial Enterprise* says that now "everything appears to go off like clockwork."

From the *Territorial Enterprise* of April 17th, we clip the following:

We yesterday saw, at the office of Bonynge & Hawxhurst, a block of ore weighing 104 pounds, which is undoubtedly the most valuable single specimen ever taken from the Comstock lead. It is almost a solid mass of silver, with a plentiful sprinkling of spangles of gold, and is worth, according to assay $6 per pound, or $624 per ton.

The Sierra Nevada Company are vigorously driving ahead with the work on their new shaft, the double engine formerly used in the old works being used for hoisting. Their new building is about completed. The new shaft is about three hundred yards east of the first or old one.

The amount of bullion shipped from the Gold Hill Express office, for the month of March last, was $490,123.89. For the quarter ending March 31st, 1866, the shipments reach $1,397,659.70.

DAYTON, NEVADA.

THE HALF-EX MINE.—This mine is situated about eight miles distant, in Indian Springs district, and is owned by the Turner Brothers, of Dayton. With a few interruptions, work has been prosecuted all winter, with the most satisfactory results. A shaft is down eighty-five feet, and a tunnel pierces three hundred and fifty feet. A well defined ledge, five feet in width has been found; samples of the ore, crushed at various times during the winter, have paid from twenty to forty-five dollars per ton.—*Dayton Sentinel.*

REESE RIVER, NEVADA.

The Knickerbocker will commence crushing rock about the 15th of May. The mill is nearly completed; and it is said by the Nye County *News*, to be one of the very best in the State.

The Pioneer, after lying idle for two months is about to start again. Arrangements have been made with their creditors.

A correspondent of the Nye County *News*, gives the following items:

The Mount Vernon Tunnel, located in Mammoth district, commenced only two weeks ago, is now in about one hundred feet.

The Bower's have struck a body of rich ore at the depth of one hundred and twenty feet.

The American Flag is now down ninety feet. The vein is five feet in width.

The Josephine shaft is now ninety feet in depth. The ore in sight is estimated to yield 150 per ton.

The Keystone, Gem, Vigilante, and Cactus, are all yielding ores of high grade.

ESMERALDA.

"The New York and Silver Peak Gold and Silver Mining Company, will commence in a few days to build a new mill of the largest size and of the most substantial character."

Two more districts, the Baldy and the Myers, have been organized twenty-five miles east of Aurora.

COLORADO.

There are 150 quartz mills in Colorado, which cost, in the aggregate, $40,000,000.

Wages at Denver are $5 per day.

Mr. Leonard is about to erect a blast furnace and rolling mills at Golden City for the manufacture of railroad iron.

The Ni-Wot Company's new 50-stamp mill, in Ward district, will start by the first of May.

A Montgomery correspondent of the *Colorado Mining Journal*, says the Spring is fairly opening, the snow disappearing rapidly, and mining commencing. The Pioneer Company had got out ore enough to keep its 30 stamp mill running for two months. Tunnel on the Parsonage lode 100 feet in; one on the Andes, 50 feet.

The *Journal* says that the Monitor Co.'s Mill has just started, running by water, and

crushing surface stuff from a large crevice newly discovered at the mill dam. The mill runs eighteen 600-pound stamps.

The Colorado Smelting Company has been recently organized under the laws of the State of New York, with a capital of two millions of dollars. Mr. Lyon, who has been for some time past experimenting on the working of Colorado ores, is President.

A vein of cannel coal, 3½ feet thick, has been discovered within ten miles of Denver, between the Platte and Cherry Creek. The Denver *News* describes it as having been pronounced by blacksmiths of superior quality.

UTAH.

Mr. James Finnerty is about to erect a smelting furnace at the Rush Valley mines, forty miles west of Salt Lake City. Specimens of the argentiferous galena from these mines are described as rich by the Salt Lake *Vedette* and the Reese River *Reveille*. Mr. Hartnelt, who has been engaged in Mexico smelting such ores, pronounces these as similar in every respect.

An extensive bed of coal has been discovered in the valley near these mines.

ARIZONA.

From the Reese River *Reveille* of March 31st, we learn—

"Letters from La Paz say that immense veins, containing many thousand tons of copper ore, have been opened in the Great Central and Mineral Hill mines at William's Fort, and a strong mining excitement has sprung up."

A letter to the Arizona *Miner*, of date Feb. 15th, 1866, speaks of the opening of a gold ledge one mile from Fort Brian, as follows: "Thus far they have stripped the ledge a distance of about twenty yards, and to the depth of six feet, and incredible as it may seem, have scarcely found a piece of rock that does not exhibit gold to the naked eye, and the most of it bears very strong indications of silver, as often seen by the writer in Nevada. On the surface the ledge has an uniform width of sixteen inches, and at the depth of six feet widens out to twenty-three inches; is well cased in wall rock on either side, standing almost perpendicular. At the eastern end of the ledge they have taken up a fine spring of water, which flows the year round from nine to twenty inches of water. They also have wood in great abundance. So far they have taken out about one ton of rock. They contemplate putting up an arastra at once."

IDAHO.

The *World* of March 24th says that wages are $6 per day at Idaho City; and that laborers will be scarce unless there is a larger immigration this spring than is now anticipated.

The Red Bluff *Independent* of April 18th, gives a letter from Silver City, Owyhee District, dated March 18th, containing interesting statistics in regard to the mills and the yield of the mines in that district. From the recapitulation, it appears that there are ten mills, carrying, in the aggregate, 102 stamps; that in 820 days' running time 10,336 tons of ore have been crushed, yielding about $2,000,000. The average yield has been $142.50 per ton.

The *Owyhee Avalanche* says "the existence of diamonds in the district is now as fully established as that of gold and silver," that "different lapidaries in New York and San Francisco have pronounced them such"—and that "those found by Wilson, were not picked up on the surface, but in a deep prospect hole sunk for gold."

The same paper says that a new ledge has been discovered, called the Dardanelles. It is *forty-three* feet thick. Several assays have been made, which show the average of $150 per ton. It lies at the head of Jacobs' Gulch, about two miles north of west of Silver, and the same distance west of Ruby.

MONTANA.

Reports at Helena from Walla-Walla to March 19th, gave the depth of snow on the Bitter Root range at 7 to 10 feet. Mining in the vicinity of Helena will commence about the first of April. (?)

There is a great excitement in regard to the Elk Creek country, Deer Lodge County, 100 miles west from Helena. The creek is reported to be fourteen miles long, and rich the whole distance. The Helena *Radvator* says there are not less than three thousand people there, and that "the roads are lined with the in-going multitude." "Quite a city has already sprung into existence."

The Montana *Post* has this item:

Flint Creek.—The stampede to the big diggings struck at Flint Creek is very large, and the idea is that a very large and rich placer is discovered.

The Indian Creek diggings, thirty-five miles from Helena, are another point of attraction; a Mr. Taylor exhibited a purse of gold of his own digging there—and said he had obtained as high as $1.25 to the pan of dirt.

An active rivalry exists between Fort Benton and the mouth of the Mussel Shell river as a steamboat landing—and the future entrepot for goods up the Missouri.

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San Francisco:
Saturday Morning, April 28, 1866.

To Coarespondents.—"L. H. P." writes from Wickenberg, A. T., as follows:

Much of the gold taken out of the Vulture lode contains a large proportion of both zinc and antimony, in a metallic state, which renders it unfit for the market without refining. I wish to get a book on metallurgy, if I can, which treats particularly of the melting and refining purposes. If you would send a book of this kind, I should esteem it a great favor.

The fourth volume of Bruno Kerl's *Huttenkunde* treats very fully of the various processes of refining gold and silver. It is published in German, has never been translated into English, and probably cannot be obtained here. B. Weterman & Co., of New York, have it. No work in English is known to us that is full upon this point.

If antimony is present in large quantity, the greater part of it might be removed by exposing the alloy to a blast of air, at a high temperature. Antimony and zinc can both be removed and the gold refined by fusing it, under proper conditions, with carbonate and nitrate of potash and borax. Circumstances alone can determine whether this method would be cheaper than refining by cupellation.

"Miner," from the Colusa oil regions next week. Further letters from our regular and special correspondents in our next. We have received an interesting lot of specimens from M. A. W., of Georgetown, which will be more fully acknowledged and described in our next issue. If the samples of ore spoken of by our correspondent W. S. G., of Colusa, are sent to this office, free of expense, we will comply with his request.

Gas Fitting, Etc.—We would call the attention of our readers to the card of Messrs. McNally & Hewkine, gas fitters and plumbers, who have recently removed their place of business from their old stand on Montgomery street, to the large new building on Market street, adjoining the Roman Catholic Orphan Asylum. These gentlemen have had over seven years experience in their business in this city, and their work fully attests their skill. Among the buildings recently fitted up by them in this line, are the Occidental Hotel, Donahue & Kelly's Bank, the Catholic College on Market street, the California Savings and Loan Bank, etc., as well as numerous buildings in Santa Clara, San Mateo, Benicia, etc.

Excitement at Salt Lake.—From the tone of the papers at Salt Lake, as well as from private letters received here from that city, it is evident that there is great danger of an outbreak between the two opposing classes. All business relations are very much disturbed, and all classes are affected with great excitement. It is certainly the duty of the Government at once to send a military force there, and put in complete subjection an element which threatens to oppress most seriously all who come in contact with it in Utah. Our people have rights in that Territory equally with the serfs imported from Europe by "the Church," and these rights can never be exercised so long as the tyranny of a priesthood governs, to the exclusion of all other law.

The Vancouver *Register* of March 31st speaks cautiously of a new quartz mining excitement. The locality is 16 miles N. E. of Vancouver. Thus far three or four ledges have been discovered. One, which has been named "Columbia Ledge," is, at a point where it crosses a ravine, fifty feet in width, and can be traced in a westerly direction for half a mile. By assay the rock showed $32 per ton. There is a report of the discovery of rich quartz within ten miles of the Dalles. By some it is considered a hoax.

NITRO-GLYCERINE.

This compound, whose explosive power has recently been so terribly demoastrated both in this city and at Aspinwall, was discovered in 1847 by M. Sobrero, a European chemist, and was first brought into practical use for blasting by Mr. Nobel, a Swedish engineer, in 1864. It is now known under the various names of "nitro-glycerine," "pyro-glycerine," "glonoine" and "blasting oil."

Since its first introduction in 1864, its extraordinary explosive energy, and the consequent promise which it gave of great utility and economy in blasting, have caused it to be rapidly and widely spread. Experiments have been made with it upon an extensive scale in many parts of continental Europe, in England, and recently in this country, all of which, together with the fearful accidents recently caused by it, combine to prove its wonderful and terrible explosive power. But while hastening to derive the benefits expected from so powerful an agent, the process of whose manufacture is simple and cheap, the fact seems to have been either forgotten or disregarded, that the *danger* in handling an explosive compound is directly proportional to its explosive energy, and to our ignorance of the precise conditions under which it will or will not explode.

Nitro-glycerine is practically a *new thing* as yet in the laboratory, as well as in the arts, and few professional chemists, even, know enough of its properties to enable them to handle it always with safety. The reason of this is two-fold. First, although its existence, and the fact of its being explosive, have been known to chemists now for nearly twenty years, it has never until recently assumed an importance sufficient to demand the careful and thorough investigation that such a substance should always receive before being made an article of commerce, and, second, it is an organic compound, and belongs therefore to a department of chemistry in which accurate investigation is often beset with peculiar difficulties, and in which many substances are liable to *spontaneous* changes in their composition from causes that no one thoroughly understands. It is said that nitro-glycerine itself is subject to spontaneous decomposition, and if this is the case, its properties must be liable to change with time, and it may well be possible that a degree of change which is not sufficient to destroy or sensibly diminish its *explosive power*, may yet materially affect the conditions under which explosion takes place. It should be noted that the term spontaneous *decomposition*, even when applied to a substance so highly explosive as nitro-glycerine, by no means *implies* spontaneous *explosion*. The decomposition may be gradual and without noise or violence, and in the case of nitro-glycerine, though there is good authority for the assertion that it is, sometimes at least, subject to this gradual decomposition, there is no proof yet that it ever *spontaneously explodes* at ordinary temperatures.

In no direction is our knowledge of this substance complete. Authorities even differ as to its ultimate chemical composition. Watts' Chemical Dictionary states its formula to be $C^3 H^5 N^3 O^9$, while Nobel's pamphlet and Dr. Price, of this city, give formulæ which are equivalent to $C^6 H^5 N^3 O^{18}$.

These formulæ do not agree with each other. They indicate very different proportions of the constituent elements, and a substance corresponding to one of them would differ materially in explosive power, and probably also in other important properties, from one having the composition indicated by the other.

Again, we have no reliable means but that of careful experiments with proper instruments, to determine the comparative explosive powers of nitro-glycerine and gunpowder, and we know of no such experiments having yet been made with nitro-glycerine. It is stated in Nobel's pamphlet that "nitro-glycerine compared with gunpowder possesses about thirteen times its power when volumes are compared, and eight times its power for equal weight, the specific gravity of gunpowder being taken at 1.0." But the data from which this conclusion is drawn are by no means certain, and it may be far from the truth.

The calculation of the quantity of cold gas generated by the combustion of gunpowder, which in this pamphlet is assumed to be practically 200 volumes, is based upon the assumption that the gases generated are at a temperature of 0° C. or 32° Fah., and a barometic tension of thirty inches. A comparsion is then instituted between gunpowder and nitro-glycerine, and among the *cold* gaseous products of combustion of the latter, are stated to be 554 volumes of steam. There is something apparently obscure about this. It is of course impossible that the 20 per cent. of water theoretically yielded by nitro-glycerine, should exist as steam, and occupy a space of 554 volumes at a temperature of 0° C. and thirty inches barometer. These 554 volumes are in fact a large allowance for the space which this water would occupy as steam at a temperature of 100° C. or 212° Fah. with thirty inches barometic pressure. It is further stated in Nobel's pamphlet that "it is difficult to determine the degree of heat produced by an exploding substance," but that "according to theory, the blasting oil, on account of its complete combustion, ought to develop a more intense heat than gunpowder," etc., and that "it may therefore be pretty safely assumed that the heat developed by the explosion of nitro-glycerine is twice that generated by gunpowder," and upon this assumption is based the conclusion that nitro-glycerine upon explosion yields 10,400 volumes of gas.

Now it is not only difficult, but, in the present state of science, *impossible* to determine with accuracy the degree of heat produced by an exploding substance, and though in the case of nitro-glycerine, this heat is undoubtedly greater than that produced by gunpowder, yet the assumption that it is *twice* as great, is certainly a broad one.

These statements, then, of definite quantitative relations between the powers of nitro-glycerine and those of gunpowder have as yet but very little value, and our actual knowledge upon this point may be summed up in the following words: The explosive energy of nitro-glycerine is much (*how* much, we do not know,) greater than that of gunpowder, and this greater energy is due, 1st to the greater absolute quantity of gas produced, 2d, to the higher degree of heat generated, and 3d, to the greater quickness of combustion, and consequent greater *suddenness* of the shock produced by the exploding gases. The combustion of exploding nitro-glycerine is practically *instantaneous*, which is not the case with gunpowder.

Nitro-glycerine is poisonous both in the liquid form and in that of vapor. A writer in the *Chemical Gazette*, however, says: "The effect of glonoine upon different individuals is exceedingly different and contradictory. Two drops of a diluted solution containing only one drop of nitro-glycerine in ninety-nine of alcohol, produces alarming symptoms of poisoning in one person, while another swallows 200 drops of a similar solution with no other effect than a slightly muddled feeling in the head."

The numerous facts recently published upon this point all agree with the above statement in showing that the toxical effects of nitro-glycerine, even in very minute quantities, are not only unreliable, but dangerous.

The statements as to the volatility of this substance are varied and contradictory: thus, in Nobel's pamphlet it is distinctly asserted that it is a perfectly fixed oil without a trace of evaporation, while the writer in the *Chemical Gazette* above referred to, says: "Pure nitro-glycerine is volatile at ordinary temperatures, a fact which was accidentally discovered by drawing off with a month-pipette some nitro-glycerine which had just been washed with water. Headache and the usual symptoms immediately set in, though not a particle of the liquid touched my mouth or tongue." Facts, however, go to show that if volatile at all, when pure, at ordinary temperatures, it is so only to an almost imperceptible extent, and that under these circumstances therefore little or no danger is to be apprehended from its vapors. It becomes, however, much more volatile when dissolved in either alcohol or other similar volatile solvents, especially when heated, and it is not unlikely that its volatility is increased by moderate heat even when pure, and hence arise some of the dangers attending its manipulation in the laboratory.

But its chief danger, wherever handled in anything but very small quantity, lies of course in its explosive properties. The statements and facts, however, in this connection are not a little perplexing, and utterly fail us if we attempt to deduce from them the precise conditions necessary for its explosion. It is said that *heat* will explode it, and Nobel's pamphlet states that "it can safely bear 212° Fah., but it explodes at about 360," while Watt's Chemical Dictionary says: "At 160° C. (339.2° Fah.) it decomposes with evolution of red vapors, and at a higher temperature, sometimes with sufficient violence to shatter the containing vessel, sometimes takes fire without explosion." Again, in an extract from the *Chemical Gazette* recently read by Dr. Hewston before the coroner's jury, it is said, "an experiment may be made without danger, by placing a small drop on a watch glass and touching it with a red hot wire," and the connection is such as to indicate that the result of this "experiment" is an explosion, while among certain experiments made in Europe last summer were the following:

"*First*—A quantity of nitro-glycerine was poured on a flattened stone; a red-hot iron bar was then made to wear along the surface of the nitro-glycerine without igniting it, and finally *placed into* the blasting oil spread on the stone, which, after being warmed, took partly fire and burned with a flame, but *without* exploding. After removing the iron bar, some undecomposed oil remained on the stone.

"*Second*—A cavity in a stone was filled with nitro-glycerine; a burning wood shaving was introduced, and, on stirring it, the nitro-glycerine burned with a flame, but without exploding. The combustion ceased as soon as the shaving was consumed." Thus, then, although beet will sometimes explode nitro-glycerine, it does not appear that it will always do so, and the circumstances under which heat alone does or does not produce an explosion, do not seem to be well understood.

We know that percussion will explode it, and that is the means for igniting it in its ordinary application for blasting purposes. Nitro-glycerine poured upon an anvil detonates when struck with a hammer, but it is said that the explosion thus produced is merely local, reaching no farther than the surface of the hammer, and that percussion can explode nitro-glycerine in bulk only when it is inclosed in a confined space. But it appears that a tolerably severe concussion will not always explode it even then, for among the European experiments already noticed, is one in which two flasks of tunnel iron (of the same kind as those used by the nitro-glycerine company) filled with nitro-glycerine, were packed into a wooden box, as is customary in forwarding them. After having screwed down the cover, this box was thrown from a hight of nine or ten feet upon the rock below, without any result. Again, if simple percussion or concussion will *always* explode this substance even when confined, it is difficult to imagine how, in the recent terrible explosion at Aspinwall, any portion of the nitro-glycerine on board the ill-fated ship could have escaped the tremendous concussion necessarily produced by the first explosion, so that after the burning hulk had been towed out into the stream, a second explosion, more terrible than the first should have occurred. Yet, such is stated to have been the fact.

It is easy to understand, in the case of the late deplorable accident in this city, how, in opening with iron tools a leaking box of nitro-glycerine, a blow of the hammer upon a chisel might have produced a local detonation either in the saturated wood of the box itself, or upon the surface of the can within (which was doubtless covered with the leaking oil), and how such a local detonation, if occurring upon the exterior surface of the can, might have been capable of reacting upon its thin side with

sufficient percussion force to explode the mass within. This *may* have been the case; but whether it was actually so or not, and whether this constitutes the real explanation of the catastrophe, can never be certainly known.

The explosion of nitro-glycerine in bulk by percussion seems to depend upon the *sudden compression* or hydrostatic pressure, produced throughout the liquid mass by a blow struck upon it when in a confined space. The chemical action which causes the explosion would seem then to commence simultaneously at all points of the mass, and to be generated at each particular point by the compression there felt, so that instead of burning gradually, the whole mass bursts into gas simultaneously, and with the quickness of the lightning. This is very different from the *modus operandi* of the burning of gunpowder, the ignition of which, as is well known, is a gradual process, beginning at the particular point where heat is first applied, and spreading from thence gradually, though quickly, through the mass, each grain of the powder being first ignited by the heat generated by the previous combustion of other grains.

It is stated that nitro-glycerine freezes at a comparatively high temperature (42° Fr.), and that the frozen oil explodes by percussion as well as the liquid—an unfortunate workman in Europe having been instantly killed and blown high into the air, while attempting to break a small lump with a pick.

It will be seen from what precedes, that, in many important respects, the properties of nitro-glycerine are as yet but very imperfectly known even to chemists. Further investigations may succeed in rendering its manufacture and transportation perfectly safe; though if it be subject to spontaneous decomposition or change at ordinary temperatures, this is a very doubtful matter, and it will be apt to always possess something of a treacherous character.

One thing is certain, no compound possessed of such terrible explosive powers as this, and whose properties are so little known, should ever be made an article of general commerce in bulk, or be transported by the ordinary means of conveyance. Whether it be nitro-glycerine today, or any one of the numerous lists of organic and inorganic explosive compounds known to chemistry in the future, if such be made an article of commerce before having been *thoroughly* investigated, or before *the people* as well as the chemist know its properties, and the condition necessary to produce its explosion, disaster *somewhere*, sudden and terrible, will be sure to follow.

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The Table of Contents of this book will be found on pa 415 of the MINING AND SCIENTIFIC PRESS of July 1st, 1865.

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Refugio, Mex	Meeting April 26		
Silver Queen, Lander co., Nev.. $1		June 23—July 23*	
Simpson & Bossell Carson Valley, $1		May 25..June 14*	
Sierra Valley, Plumas co., Cal., $1		May 31—June 18*	
Silver Cloud, Lander co.. Nev., 50c		April 14—April 27*	
Santa Cruz 50c		April 14—April 28*	
San Francisco, Moss Ledge, $25		May 1—May 16	
Sweet Vengeance, $1		May 11—May 30	
Siskiyou, $1.50		April 28—May 25	
Sophia, Tuoluinne county, $7		April 26—May 11	
Shoshone, Lander co., Nev., $1		April 9—April 23	
Salambo Copper, $1		May 8—May 29	
Seaton		Sale March 30	
Stephen A. Douglas, Lander co., Nev	Meeting May 2		
Sierra Nevada, Storey co, Nev., $4		May 7—June 6	
United States, Storey co., Nev., 50c		May 26—June 13*	

*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Retail Prices Current.

Butter, California fresh ₰ lb	45@ 50
do pickled ₰ lb	35@ 40
do Oregon	35@ —
do New York, ₰ lb	50@ —
Cheese, ₰ lb	20@ —
Honey, ₰ lb	30@ 40
Eggs, ₰ doz	—@ 50
Lard, ₰ lb	25@ —
Hams and Bacon, ₰ lb	24@ 26
Cranberries, ₰ gal	75@ 1 00
Potatoes, sweet, ₰ lb	—@ —
do Irish, ₰ lb	1@ 1½
Tomatoes, ₰ lb	@ —
Onions, ₰ lb	6@ 8
Apples, No. 1, ₰ lb	3@ 8
Pears, table ₰ lb	8@ 25
Plums, dried, ₰ lb	20@ 22
Peaches, dried, ₰ lb	16@ —
Oranges, ₰ doz	50@ —
Lemons, ₰ doz	75@ —
Chickens, apiece	87@ 1 12
Soap—Pale & C. O	10@ 12
Castile	14@ 15

ANNUAL REPORT

—OF THE—

Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLATURE of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD..... $750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire	$12,973,949
Marine	434,408

This Company commenced underwriting Marine Risks, August 1, 1855:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	O. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Wm. Sellgman,	Wm. Blouner,	Lloyd Tevis,
Anson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
G. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Schutle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis.
John Whitman,	Oscar Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.

4v12-3m

TRY IT 50 PER CENT SAVED BY USING

STANDARD SOAP COMPANY'S WASHING POWDER.

THIS POWDER IS SUPERIOR TO ALL OTHER PREparations for washing and cleansing. It is made of pure material, and contains nothing that will injure the finest fabric. Equally as good for using in hard as soft water. One pound will make three gallons of beautiful soft soap. Put up in wrappers of 1-lb each, and in wooden boxes of 10-lbs bulk. Ask your grocer for a package, and test its virtues. Manufactured at **207 Commercial street,** San Francisco. 15v12

Metallurgy.

EUROPEAN METALLURGICAL WORKS,

—AND—

Practical Mining School,

Bryant Street, Between Third and Fourth,

SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous and the (so-called) "refractory ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

S. P. KIMBALL, J. R. MURPHY.
10v10

SODIUM AMALGAM!

With Instructions for Its Use.

THE ABOVE

FOR SALE IN ANY QUANTITY THAT MAY BE REQUIRED,

—BY—

H. P. WAKELEE, Importer,

2v12 1m Corner Montgomery and Bush streets.

G. KUSTEL,

Metallurgist and Mining Engineer,

Stevenson House, corner Montgomery and California sts.

Ores Analyzed.

Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
20v11 3m

BOALT & STETEFELDT,

Metallurgists and Mining Engineers

AUSTIN, NEVADA.

Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

Copper, Lead, Gold, Silver, Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

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Agent for Townshend Wood & Co., Swansea,

No. 406 California Street, San Francisco.
15v10-3m

MARTIN & CO.,

Office, Stevenson House,

Corner California and Montgomery streets (up stairs).

WILL CONTRACT FOR THE

PURCHASE OF COPPER ORES,

Assaying eight per cent. and upwards of Copper to the We will make advances upon Ores of Copper.
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W. S. KEYES, A. M,

(GRADUATE OF SCHOOL OF MINES, FREIBURG.)

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Room No. 13, over Parrott & Co's Bank.

Assays—Analysis of Ores, Mineral Waters, etc. etc. Mines examined and reported upon.

Office Hours, from 9 to 12 M. 8v12tf

SODIUM,

Potassium, Magnesium,

And a fresh supply of

PURE CHEMICALS.

Just received and for sale by

JOHN TAYLOR & CO.,

4v12-1m 512 Washington street.

WILLIAM PENROSE,

Agent for Messrs. Vivian & Son and Dillwyn & Co., Smelters at Swansea,

Is prepared to buy in any quantity

COPPER, SILVER, GOLD, LEAD

AND OTHER VALUABLE ORES,

Also Lead Bars Containing Gold and Silver.

☞ Full value paid on delivery in this City. ☜

Address Lock Box No. 992, P. O., San Francisco. 25v10

VOLUME TWELFTH.—The MINING AND SCIENTIFIC PRESS, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

W. A. GOODYEAR. T. A. BLAKE.

GOODYEAR & BLAKE,

Civil and Mining Engineers

—AND—

Metallurgists.

Among others, refer by permission to—

PROF. SILLIMAN New Haven Ct.

DR. JOHN TORREY, U. S. Assayer, New York City.

W. C. RALSTON, D. O. MILLS, Bank of California.

BARRON & Co., San Francisco.

Address, P. O. Box 2,052, San Francisco, Cal. 9v12qr

ASSAY BALANCES,

LADD & OERTLING'S,

For sale low, by

ISAAC S. JOSEPHI & CO.,

14v12 1m 641 Washington Street.

Mines Sold in New York.

THE SUBSCRIBER HAVING EXCELLENT FACILITIES for disposing of Gold, Silver and Copper Mines of the Pacific coast in New York and Boston, will be pleased to confer with those having mines for sale. No charges unless sales are made.

Refers to R. G. Sneath, G. W. Gibbs, Thos. Hill.
4v12 J. WILLIAMS, 413 East street.

CLOTHING MADE FROM CALIFORNIA CLOTH,
For Wholesale and Retail Trade,
ALSO, CLOTHING MADE TO ORDER,
AT QUINCY HALL,
Nos. 545, 547 and 549 Washington Street,
SAN FRANCISCO, CAL.
19v11-3m

NEW YORK PRICES

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,

No. 602 Montgomery street, San Francisco.

EXCLUSIVE AGENT

—FOR THE—

AMERICAN WATCH FACTORY.

A large assortment of these

Superior Watches,

In Gold and Silver Cases,

Constantly on hand, and sold at Factory prices. Also,

ENGLISH AND SWISS WATCHES,

Imported directly from the Manufacturers.

The American Company are now making

VERY FINE WATCHES FOR LADIES.

☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

California Steam Navigation COMPANY.

Steamer **CAPITAL**.....CAPT. E. A. POOLE.
" **CHRYSOPOLIS**....CAPT. A. FOSTER.
" **YOSEMITE**..... — —
" **CORNELIA**.....CAPT. W. BROMLEY.
" **JULIA**.....CAPT. E. CONCKLIN.

One of the above steamers leave BROADWAY WHARF, at 4 o'clock P. M. EVERY DAY (Sundays excepted), for Sacramento and Stockton, connecting with light-draft steamers for Marysville, Colusa, Chico, and Red Bluff.

Steamships AJAX, PACIFIC, ORIZABA, CALIFORNIA, ACTIVE and SENATOR, leave, as advertised, for Honolulu, Portland, Oregon, New Westminster, British Columbia, Victoria, V. I., Santa Barbara, San Pedro, and San Diego.

Office of the Company, northeast corner of Front and Jackson streets.

B. M. HARTSHORNE,
13v12 President.

Oakland Water-Cure.

APRIL 1ST, 1864, WE OPENED A HYGIENIC BOARDING House and Ladies' Health Institute in Oakland. The great advantage we have experienced since that time, in the treatment and cure of all those diseases peculiar to females, as well as those common to all, over that of San Francisco, induced us to give up the treatment of gentlemen in the city. We have accordingly removed our entire Bathing, Electro-magnetic, and Gymnastic Apparatus, which we used especially in the treatment of females, to our Health Institute across the Bay, and have found, after a trial of seven months, that gentlemen as well as lady patients recover, at our Fountain Farm Cure, one-third faster than in the city of San Francisco. The climate here is the most even and bracing to be found in the State. The grounds command a view unsurpassed in the world. The Institution is furnished with an abundance of pure, soft water, from numerous springs; and we now offer to Ministers, Teachers, Lawyers, Miners, Merchants, Mechanics, Farmers, and all other worthy persons, who desire to try the advantage of the only *rational* system of medicine, the hospitalities of our Hygienic Home and Cure. Young men who have become debilitated or lost their health by excessive toil, exposure, disease, or basis, contracted through Ignorance of Physical Laws, may with us find more of the encouragements they need, and means that will restore them to health, than elsewhere in California.

We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that it is followed by none of those debilitating diseases, such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Urethal Strictures, etc., which we well know result from the free use of mercury and other metallic drugs, or even the milder stimulants and vegetable poisons given to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in its facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any like establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douch Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to miners, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Mercurial, Lead, and Oil Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have yet used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, retorting metals, the malaria of rivers and low marshy grounds. Where there was a fair constitution left, even when drugs had been applied for months and years without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflammatory and Mercurial Rheumatism; Paralysis; Lung, Bronchial and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Erysipelas, Scrofula, Piles, Inflammation of the Bowels, Chronic and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is so favorably situated to furnish so many home comforts and hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only truly delightful boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the medication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in the bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institutions, (both in Sacramento and San Francisco) has induced us to make this class of human afflictions a specialty of our Institution. We have treated (mostly in the cure), over 300 females, several of whom had been "bed-ridden" for months and years, and all have been decidedly benefited, and with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

There is not one female invalid in twenty that has been suffering from nervous debility or diseases peculiar to her sex, that cannot be permanently cured by spending from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many who have been treated at our Cure, we have yet to learn of a single regret from husband or wife of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has labored successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo-Therapeutic College.

To all whom it may concern:

I have known Dr. Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as an honest, faithful delineator of character, and as such can cheerfully recommend him to the public.

For the good of Science.

L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

BARLOW J. SMITH, M. D.,
20v11tf San Francisco, Box 473.

GEORGE E. BROWN,

(Late Assistant Examiner in the U. S. Patent Office,)

HAVING RESIGNED THAT POSITION AFTER A TENure of office of eighteen months, offers his services to

INVENTORS AND THEIR ASSIGNEES,

—AS A—

Patent Solicitor,

He will make Preliminary Examinations in the Patent Office, with a view to ascertain the Patentability of any invention that may be submitted to him for that purpose; will prepare the necessary papers for those who wish to make Applications for

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EXTENSIONS OR REISSUES OF PATENTS

Already granted; will act as an Attorney in presenting Applications at the Patent Office, and in managing them to a final issue; will draw up Assignments; will examine into the condition of Rejected Applications when desired to do so, and undertake the prosecution of such as may be considered patentable, and do whatever else is usually done by Patent Solicitors.

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DR. E. R. JOHNSON WILL WARRANT TO CURE ALL cases of Asthma, Fever and Ague, Catarrh, Sore Throat, and Womb Diseases. The Doctor's success is miraculous in cases of RHEUMATISM, NEURALGIA, CONSUMPTION, GOUT, PARALYSIS, INFLAMMATION OF THE EYES, and all other diseases that human skill can reach. Rheumatic Pains removed in five minutes. Some of the afflicted that visit him come from one to six hundred miles, and seek and find relief. Persons at a distance can be cured at home by addressing a letter to Dr. Johnson, No. 700 Market Street, San Francisco, stating case, symptoms, length of time the disease has continued, and have medicine promptly forwarded to any part of the country, with full and plain directions. ☞ Consultation by letter or otherwise, FREE. 16v12-1m

[Written for the Mining and Scientific Press.]

From El Dorado County.

BY OUR TRAVELING CORRESPONDENT.

MESSRS. EDITORS:—We parted company, as you may remember, at Lyon's Dale. Setting out from this point for Coloma via Spanish Flat, Kelsey and the Plymouth mill, we must leave it to your own imagination to call up the varied and beautiful scenery everywhere presented to view, from grassy vales fenced in by barrier cliffs, or from lofty peaks of waving pines, or thickly studded evergreen, and hurry you along by a course no less tortuous and rapid than that of the numerous little mountain streams, now crossed and recrossed, as they go dashing, splashing, whirling downward towards the South Fork of the American river.

But leaving landscapes to the painter, and their description to the poet, let us, without further preface or preliminary, proceed at once to a few more facts that may be of more interest to the miner, the political economist or the capitalist. Without attempting to describe in detail all the mineral lodes of this portion of El Dorado, many of which are believed and known to be exceedingly rich, perhaps not inferior in point of permanence and value to those of the counties of Amador and Nevada, we are compelled to make a selection of a few only of those found, as a sample of the many that crop out on almost every hillside and in every ravine, as laid bare by the swollen torrent or ground sluice or hydraulic of the placer miner, and from whose decomposed sulphurets or quartz he has often reaped his richest harvest. Following the meanderings up Irish creek to a point on its right margin, one and a half miles south of the Blue Ledge mill, we find ourselves at

THE MANSFIELD,

A claim but recently located, and owned by Messrs. Frost, Carothers & Co., having a lode from nine to ten feet in width, extending from south to north along the side of one of those mountain ridges which everywhere abound in the vicinity. The quartz is of a bluish cast, containing more or less of the sulphuret so frequently spoken of and peculiar to this district, and lies in two veins near the walls, which are a species of slate, the space between the quartz veins being occupied by a sandstone or metamorphic slate, somewhat similar to that found in the Blue Ledge as formerly described. An incline follows the lode down to the depth of forty feet at the angle of its eastern dip, exposing ore along the different points of its line, containing many small particles of gold, which does not require the practiced eye of an adept to discover.

This lode is well situated for working, being convenient to a 20-stamp mill, where they can have their rock crushed as soon as it is taken from the mine, which will enable the company to prospect their claim to greater depth. They have an abundance of wood for timbering, and water for mills and machinery, and are making preparations to pursue the work of development the coming summer with vigor.

Having lingered but a short time at Spanish Flat, near which there are some promising quartz lodes, we come next in order of our notes to

THE RED HILL CLAIM,

One mile south of this village, belonging to Messrs. Doncaster, Henry & Lackey—the last named gentleman only *lacked* a little of being born *lucky*, not only literally but really, for while I was watching the interesting process of a "clean-up," in miner's parlance, he took out, besides some smaller and more delicate specimens, the largest and most beautiful nugget of quartz gold that I have had the pleasure of seeing since arriving in the country. It was worth $40 to the merchant; to me $100. How or why, it does not matter. It is enough to know that one force or cause often produces a variety of motions, emotions and sometimes commotions. Again to the figures. I have it on most unquestionable authority that over $40,000 have been washed from this hill since work commenced upon it, sometimes as much as $5,000 per week, many nuggets weighing as high as $300 apiece. This, it is true, was in the past; but the mine is not yet exhausted. But while it may be even inexhaustible, it is

now less accessible, requiring more brain, labor, capital and machinery to obtain a given amount of the precious metals in a given time, while the evidences of their durability and richness may be as patent now as ever. The west wall is of slate, the east is thought to be a kind of greenstone. The pay veins lying near the walls are probably 100 feet apart, and widen from six inches on the surface to about two feet at the depth of sixty-five feet, the bottom of the deepest shaft.

The whole expense of sinking, drifting and timbering, a considerable amount of which had been done, has been paid by simply panning out the gold—set free by the decomposition of the quartz, slate and sulphurets, together with some arsenurets of iron. Taking up a piece of this decayed mass from a heap of what seemed to me waste rock, I found, to my great astonishment that it was rich in free gold. The Indians of the neighborhood have been turning this rubbish to good account as the nearest reservoir could testify. Whether the untutored savage had ever looked back into the long ages for the causes of this decomposition, or had ever considered the effect of heat, moisture and oxygen upon the life, death and decomposition of the mineral, he certainly had discovered an important *fact*, and was but a little in the rear of his civilized neighbor, for the most experienced chemist has thus far failed, unless at great cost or but very imperfectly, to transform the living compact salpharet into lifeless, crumbling matter, thus releasing the full amount of its precious contents to the uses of commerce and the wants of man.

PROSPECTOR.

[To be Continued.]

Machinists and Foundries.

LEWIS COFFEY. J. S. RISDON

LEWIS COFFEY & RISDON,

Steam Boiler & Sheet Iron Works.

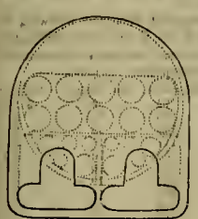
THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.

Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

NEPTUNE IRON WORKS,

Corner of Mission and Fremont Streets,

SAN FRANCISCO.



MARINE,
Locomotive,
And all kinds of
HIGH PRESSURE
Steam Boilers
MADE.

All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.

All kinds of Sheet Iron and Water Pipe, Steel Oil Stills, Wrought Iron Worms, etc., etc. Manufactured to Order,

Old Boilers Repaired

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Nos. 109 and 111 Fremont street, near corner of Mission,

OPPOSITE MECHANICS' MILL,

SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL,

And Quartz Machinery, Printing Presses,

—AND—

MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

☞Special attention paid to Repairing.☜ qy-8

JAMES MACKEN,

COPPERSMITH,

No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to. 13v11

SAN FRANCISCO

Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,

Manufacturers of

Marine and Stationery Engines!

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses

of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Baux & Ouiod's Amalgamator and Separator; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston-Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings at the lowest market rates.

6v11-1y **DEVOE, DINSMORE & CO**

THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

REMINGTONS'

ARMY AND NAVY REVOLVER,

THE REMINGTON REVOLVER

Has been approved by the United States Board of Ordnance, and has so satisfactorily met the requirements of the Government, not only in the field, but in the official tests and examinations made by prominent officers of the Ordnance Department, that it stands at once the most popular, serviceable and approved arm of the kind in use. Upwards of 126,000 have been supplied to the Government within the past four years, for the land and naval service, furnishing ample evidence of the estimation in which the arms are held.

Simple and symmetrical in its entire construction, securely strong, of most modern improvement in mechanism and material; its unequaled range and penetration, together with its durability, are points in its favor now well known, and which challenge a comparison with any other pistol of the kind made in this country or in Europe.

The superior strength and capacity of the arm for constant and long use is apparent from the fact that the entire frame is constructed of a single piece of metal, thus preventing the extension of some portions of the frame, from the effect of firing—a serious defect in many pistols—in which the frame is composed of two or more parts.

The frame of the Remington Revolver furnishing a TOP STRAP or support above the cylinder, served to protect the base pin (on which the cylinder revolves) from any undue strain to which it would otherwise be subjected, and which would immediately render the line of fire from the cylinder to the barrel imperfect, thus destroying force and accuracy.

Another advantageous feature of the arm is the means afforded for the instantaneous removal of the cylinder from the frame. This not only facilitates the cleaning of the pistol, but by the quick adjustment of the cylinder, one pistol can be made as effectual as two—and, considering the difference of weight, it is far preferable—by simply possessing a spare cylinder loaded and capped to instantly replace the exhausted one.

The above is a general summary of the points of peculiar merit in the Remington Revolver which a trial of the arm is only needed to attest. For sale at Manufacturers' rates, by

ALBERT E. CRANE, Manufacturers' Agent,

16v12 **340 Washington Street, up stairs.**

Vulcan Iron Works Company

[ESTABLISHED 1850.]

First, Natoma and Fremont Streets.

IRON FOUNDERS,

Steam Engine and Locomotive

BUILDERS,

Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery, Locomotives, Car Trucks, Car Wheels, Housings and Irons; and — Planing Mills, Quartz Mills, Sugar Mills, Saw Mills,

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR;
BEATH'S AMALGAMATOR;
HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;
BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;
FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;
JONVAL'S IMPROVED WATER WHEEL;
LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

M. REYNOLDS,

COPPERSMITH

—AND—

SHEET IRON WORKER,

Market street, near Front, San Francisco.

☞ All kinds of Cooking Utensils tinned and made to order. 16v12-3m

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H. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!

Corner First and Mission streets,

SAN FRANCISCO.

ESTABLISHED IN 1849.

HAVING INCREASED OUR FACILITIES IN EVERY Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's Improved Tractory Curve Pan, Zeuas Wheeler's improved flat bottom pan, Beldin's pan, Veatch's tubs, Prator's concentrators, Wahlee's pans, Boerpan, German Barrels, Arastra Gearing, Chilie Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.

21v10 **H. J. BOOTH & CO.**

BY MAIL.—The MINING AND SCIENTIFIC PRESS will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

PALMER, KNOX & CO.,

Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,

SAN FRANCISCO.

MANUFACTURE ALL KINDS OF

MACHINERY,

STEAM ENGINES AND QUARTZ MILLS

DUNBAR'S IMPROVED

Self-Adjusting Piston Packing.

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S

NEW GRINDER AND AMALGAMATOR

HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 18v10qy-tf

FULTON

Foundry and Iron Works.

HINCKLEY & CO.,

MANUFACTURERS OF

STEAM ENGINES,

Quartz, Flour and Saw Mills,

Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

Miners' Foundry

—AND—

MACHINE WORKS,

First St., between Howard and Folsom Streets,

SAN FRANCISCO.

EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,

Machinery, Mining Pumps, Amalgamators,

Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KING

UNION IRON WORKS,

Sacramento.

WILLIAMS, HEILBRON & CO.,

MANUFACTURERS OF

STEAM ENGINES, BOILERS,

And all kinds of Mining Machinery.

Also, Hay and Wine Presses made and repaired with neatness, durability and dispatch.

Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

Front Street, between N and O streets,

14v11 SACRAMENTO CITY

PORTLAND BOILER WORKS.

MOYNIHAN & AITKEN,

Boiler Makers and Sheet Iron Workers,

N. B.—All kinds of Boiler and Sheet Iron Work executed at the shortest notice, and on the most reasonable terms.

Mission street, between Beale and Fremont streets, San Francisco. 10-v12

JOHN LOCHHEAD'S

STEAM ENGINE WORKS,

Beale Street, near Mission Street,

SAN FRANCISCO.

Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc

25v9q JOHN LOCHHEAD, Practical Engineer

It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid.—[Nye County News

PEOPLE'S OMNIBUS LINE.—The Board of Trustees of the People's Omnibus Line, met on Tuesday, and elected R. B. Woodward, President; Egbert Judson, Vice-President; C. J. Jansen, Treasurer, and Walter Van Dyke to act as Secretary temporarily. It is the intention to have some first-class omnibuses built without delay, and enter upon the business for which the company was incorporated.

LECTURE ON CALIFORNIA.—From the Baltimore *American* we learn that a lecture was delivered at the hall of the Maryland Institute, March 29th, by Chief Justice Turner, of Nevada, upon the subject of "The Gold and Silver Mines of America," which was treated with masterly ability, and evidenced a full personal acquaintance with the mining regions of America.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 25v11tf

LOW PRICES
—IN—
GENTS' FURNISHING GOODS,
—AT—
WARD'S SHIRT STORE,
NO. 823 MONTGOMERY STREET,
—AND—
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PRICE LISTS OF GOODS, SENT FREE BY MAIL.
16v12-3m16p

By Authority of the State of California,
Having fully Complied with the Law by a Deposit of $525,000 Bonds of the State of California and the United States.
BIGELOW & BROTHER,
General Insurance Agents.
Fire, Marine, and Life Insurance.
CAPITAL REPRESENTED $15,000,000.
California Deposit, $525,000.
OFFICES—N. W. corner of Montgomery and Sacramento streets.

COMPANIES REPRESENTED:

HOME INSURANCE CO. OF N. Y., Assets	$3,700,000
HARTFORD FIRE INSURANCE CO., Assets	1,500,000
PHENIX INSURANCE CO., N. Y., Assets	1,000,000
ARCTIC INSURANCE CO., N. Y., Assets	700 000
WASHINGTON INSURANCE CO., N. Y., Assets	700,000
NEW YORK ACCIDENTAL INS. CO., Assets	260,000
CONNECTICUT MUTUAL LIFE INS. CO., Assets	8,000,000

POLICIES issued on Freights, Cargoes and Treasure from and to all parts of the World.

FIRE INSURANCE POLICIES issued on all kinds of Insurable Property in Country or City.

ACCIDENTAL POLICIES issued on the most favorable terms, insuring the payment of stated sums in the event of death, or a fixed Weekly Compensation for Total Disability for the term of twenty-six weeks for any one accident. These Policies cover all kinds of Accidents, and are issued for single trips or for the year.

Losses Payable in Gold Coin of the United States.

We represent Companies
That Have Stood the Test of Years,
And offer as favorable terms as any on the Pacific Coast.

BIGELOW & BROTHER,
20v11tf General Agents.

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for BOOK AND PAMPHLET PRINTING entrusted to the Mining and Scientific Press Job Office.

Pacific Mail Steamship Co's
THROUGH LINE TO NEW YORK,
Carrying the United States Mail.
LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.
On the 10th, 18th and 30th of each month that has 30 days.
On the 10th, 19th and 30th of each month that has 31 days.
When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceding; when the 18th falls on Sunday, they will leave on Monday following.
Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.
Departures of 18th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.
Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.
Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.
The following Steamships will be dispatched on dates as given below:
30th—GOLDEN AGE.....Capt. E S. Farnsworth.
Connecting with ARIZONA, Capt. Maury.
Cabin passengers berthed through. Baggage checked through—100 pounds allowed each adult.
An experienced Surgeon on board. Medicine and attendance free.
These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.
For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.
For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.
OLIVER ELDRIDGE, Agent.

The Excelsior Hat
—OF—
SAN FRANCISCO.
Paris, New York and London Styles
For Spring and Summer, 1866,
Will be introduced
SATURDAY.....MARCH 3
—AT—
MEUSSDORFFER'S
Hat Manufactories,
Nos. 635 and 637 Commercial street.....San Francisco
No. 125 J street.....Sacramento
Corner D and Second streets.....Marysville
OUR STYLE IN MOLESKIN, for this season, is, we feel confident, the SUPERLATIVE OF ELEGANCE AND FINISH; our MERINO PINAUD and ST. CLOUD the most successful result of Parisian taste.
Especial attention also deserve our
CHELSEA,
CHESTER,
CRESCENT,
NEWPORT,
DERBY and
CLARENDON RESORTE.
☞ Call and see them. 9v12-3m

New Mining Advertisements.

Continued Mining Advertisements will be found on another page.

Cosala Silver Mining Company, District of Cosala, Sinaloa, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 24th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Bayliss, J H	51	5	$ 5 00
Bayliss, J H	52	5	5 00
Bayliss, J H	54	10	10 00
Bayliss, J H	55	10	10 00
Bayliss, J H	56	10	10 00
Bayliss, J H	57	26	26 00
Bayliss, J H	58	40	40 00
Bayliss, J H	59	50	50 00
Bayliss, J H	60	50	50 00
Bayliss, J H	61	100	100 00
Bayliss, J H	62	100	100 00
Crowley, Timothy	566	11	11 00
Foote, F E (not issued)	556	20	20 00
Luney, Thomas	628	10	10 00
Nichols, A W	572	33	33 00
Rice, J M	488	5	5 00
Scholl, Michael	479	10	10 00
Scholl, Michael	480	10	10 00
Scholl, Michael	577	30	30 00
Toland, H H	105	123	123 00
Toland, H H	120	100	100 00
Woringen, L de	542	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 24th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the auction room of Maurice Dore & Co., 327 Montgomery street, San Francisco, Cal., on the 12th day of May, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHAS. BAUM, Secretary.

No. 510 Battery Street, opposite the Custom House, San Francisco. ap28

Nuestra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, (in the Drug store, near Dupont,) or to the Treasurer, A. HIMMELMANN, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 2d day of June, 1866, and unless payment shall be made before, will be sold on the 20th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug store, near Dupont street,) San Francisco, Cal. ap23

SEND US WORD.—If any subscriber to this journal fails to receive the same regularly and promptly, they will confer a favor by informing us at once.

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

Sierra Valley Gold and Silver Mining Company, Plumas County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 26th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately, in gold coin of the United States of America, to the Secretary, at the office of the company, No. 607 Washington street, in the city and county of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 31st day of May, 1866, will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 18th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. apr28

Simpson & Bosecile Mining Company.—Mines located in Carson Valley.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 20th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable on the 30th day of April, 1866, in United States gold and silver coin, to the Secretary, or to Dr. J. W. WATERS, Markleeville, Cal.

Any stock upon which said assessment shall remain unpaid on the 25th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 14th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. BIBBINS, Secretary.

Office, 305 Montgomery street, San Francisco, Cal. ap28

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Arizona Consolidated Mining Company.— Location: Colorado River, Eureka District, Arizona Territory.

NOTICE.—The Annual Meeting of Stockholders of the above named Company, for the election of Trustees to serve for the ensuing year, will be held on MONDAY, the 7th day of May, at four o'clock P. M., at the office of said Company, No. 011 Clay street.

GEO. W. BUNNELL, Secretary.

San Francisco, April 16, 1866. ap21

Assurance Mining Company---Location: Occidental Lode, San Benito Mining District, County of Monterey, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the company, 302 Montgomery street, Room No. 4, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. F. BRANDRETH, Secretary.

Office, 302 Montgomery street, Room No. 4, San Francisco, California. ap14

Batopilas Mining Company, Batopilas District State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of April, 1866, an assessment (No. 2) of twenty-five (25) cents per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 811 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 10th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.

Office, 811 Montgomery street, San Francisco, Cal. ap7

Beard & Senver Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
H H Allen	25	25	$12 50
H H Allen	27	30	15 00
H H Allen	106	15	7 50
H H Allen	110	5	2 50
Geo M Blake	14	3	1 50
H T Boonam	54	20	10 00
C W Brooks	58	20	10 00
C W Brooks	59	5	2 50
C W Brooks	60	10	5 00
Chas Bertody	64	20	10 00
Wm H Chevers	16	3	1 60
H F Cutler	51	8	4 00
W K Derrick	18	3	1 50
John Dall	21	3	1 60
W G Doane	96	5	2 50
D B Francis	3	3	1 50
S H Grdene	8	5	2 50
R W Heath	7	7	3 50
Sarah Holmes	57	3	1 50
T E Lindenberger	5	3	1 50
T E Lindenberger	87	7	3 50
P C Lander	107	3	1 50
T J Lamb	46	12	6 00
W F Ladd	61	10	5 00
F P McMahon	43	20	10 00
Wm Nicol	1	3	1 50
S Pinkham	42	10	5 00
L B Pierce	75	25	12 50
L B Pierce	70	25	12 50
L B Pierce	77	25	12 50
L B Pierce	78	25	12 50
L B Pierce	79	25	12 50
O A Peck	86	5	2 50
E P Stone	44	15	7 50
E P Stone	45	15	7 50
S B Stoddard	55	10	5 00
J T Sixby	96	25	12 50
L B Seaver	68	25	12 50
L B Seaver	69	25	12 50
L B Seaver	70	25	12 50
L B Seaver	97	8	4 00
J M Stewart	95	5	2 50
E L Taylor	65	25	12 50
John Wightman	12	3	1 50
J H Woods	53	11	5 50
Beard & Seaver Stock account —		147	73 50

And in accordance with law and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 1st day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C FASSETT, Secretary.

Office, 402 Front street, San Francisco. ap14

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.—Assessment No. 11.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the Office of the Company only.

Any stock upon which said assessment shall remain unpaid on the 12th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. ap14

POSTPONEMENT.—The advertisement of stock delinquent on the above assessment, is hereby postponed until Saturday, June 9th, 1866, and the sale thereof until Tuesday, June 26th, 1866. By order of the Board of Trustees.

ap28 W. D. ROOT, Secretary.

Harker Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
B Argyras	94	5	$ 2 50
G M Blake	68	10	5 00
G A Bee	128	5	2 50
A Block	117	10	5 00
Mrs S R Cagwin	56	10	5 00
Geo Clifford	63	10	5 00
James Camp	124	10	5 00
J A Drinkhouse	100	5	2 50
J A Drinkhouse	148	78	38 00
C J Dryer	93	1	50
C J Dryer	139	4	2 00
W G Deano	121	5	2 50
L Dinkelspiel	141	10	5 00
D B Francis	80	10	5 00
A B Gayle	105	35	17 50
A B Gayle	107	3	1 50
A B Gayle	129	20	10 00
W B C Harker	27	20	10 00
W B C Harker	28	20	10 00
W B C Harker	87	10	5 00
M Harker	92	5	2 50
S Haas	95	16	7 50
S Haas	126	30	15 00
S Haas	127	15	7 50
S Haas	134	5	2 50
A W Hawkelt	110	5	2 50
John C Hall	120	10	5 00
N B Jacobs	68	5	2 50
A D Meacham	91	5	2 50
F W Myrick	123	10	5 00
G A Pitney	38	20	10 00
G A Pitney	39	20	10 00
G A Pitney	40	20	10 00
G A Pitney	41	20	10 00
G A Pitney	42	20	10 00
G A Pitney	43	20	10 00
G A Pitney	44	20	10 00
G A Pitney	45	20	10 00
G A Pitney	47	10	5 00
G A Pitney	48	10	5 00
G A Pitney	122	15	7 50
Johanna Roscebaum	59	10	5 00
W T Reynolds	85	20	10 00
W T Reynolds	86	10	5 00
W T Reynolds	87	10	5 00
E F Stone	52	10	5 00
C M Thureman	119	9	4 50
J W Work	51	10	6 00
L Wadhams	64	5	2 60
Geo Work	65	10	5 00
W G Wendell	87	6	2 50
Mark Wiggins	116	20	10 00
H Woodleaf	118	10	5 00

And in accordance with law and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 1st day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. ap14

Postage.—The postage on the MINING AND SCIENTIFIC PRESS to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents.

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of April, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States Gold and Silver Coin, to the Secretary, S. S. SWEET, No. 611 Market street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 8th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.

Office, No. 611 Market street, San Francisco, Cal. ap7

I. X. L. Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of April, 1866, an assessment of one and a half dollars per share was levied upon the capital stock of said Company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 338 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 17th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 7th day June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary,

ap14 No 338 Montgomery street, San Francisco.

Jefferson Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
O J Bacon	39	7¼	$3 88
O J Bacon	136	10	5 00
O J Bacon	137	10	5 00
O J Bacon	139	5	2 50
Bridgeport G and S M Co	170	20	10 00
J S Currie	1	24	12 00
S O Clifford	33	2	1 00
S O Clifford	106	10	5 00
S O Clifford	109	10	5 00
S O Clifford	151	10	5 00
Jonas G Clark	156	23½	11 62
M J Farrell	132	10	5 00
T L Frew	153	15	7 50
Jos Gilbert	68	20	10 00
Jos Gilbert	70	10	5 00
Jos Gilbert	71	10	5 00
Jos Gilbert	72	10	5 00
Jos Gilbert	73	10	5 00
Jos Gilbert	74	10	5 00
Jos Gilbert	75	10	5 00
Jos Gilbert	76	10	5 00
Jos Gilbert	77	5	2 50
Jos Gilbert	78	5	2 50
A B Gayle	173	5	2 50
John Hewslon, Jr	61	20	10 00
A Hartman	184	10	5 00
A Hartman	185	15	7 50
S Jackson	14	20	10 00
S Jackson	15	20	10 00
S Jackson	16	8¼	4 12
T G Johnson	149	8	4 00
S T King	166	5	2 50
S T King	167	5	2 50
S T King	168	10	5 00
B Littlefield	121	10	5 00
James McGahey	20	5	2 50
James McGahey	21	5	2 50
D McDonnell	34	9¼	4 63
Eli McIntyre	122	11	5 50
Eli McIntyre	123	10	5 00
Eli McIntyre	124	10	5 00
Eli McIntyre	125	10	5 00
Chas McElvy	159	6	3 00
Chas McElvy	161	10	5 00
Chas McElvy	162	10	5 00
Chas McElvy	163	6	3 00
H Oyer	49	20	10 00
H Oyer	53	10	5 00
H Oyer	54	10	5 00
H Oyer	55	5	2 50
B Oyer	58	6	3 00
S W Potter	128	5	2 50
George Priest	145	10	5 00
H H Pearson	154	15	7 50
George Riley	150	7	3 50
M Seiler	148	46	23 00
Sepastopol G and S M Co	155	9¼	4 83
S A Watson	142	3	1 50
Mark Wiggins	117	20	10 00
Mark Wiggins	118	10	5 00
Mark Wiggins	119	10	5 00
Mark Wiggins	120	11	5 50
J J Wooster	127	5	2 50
J H Woods	157	15	7 50
George Work	169	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the office of the Company, on the 30th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. ap14

SAVE YOUR MONEY AND BUY,

For $100!

HUNTER'S

Premium Concentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

THE ABOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 135 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable, for all the different grades of ores, and will save ten per cent. more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 18 Washington street, below Davis, where ALBERT JACOBS will fill their orders promptly.

ANDREW HUNTER,

17v12-tf Inventor.

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on the 18th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 4th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. B. WINEGAR, Secretary.

Office, 308 Front street, San Francisco. ap21

Kentucky Copper Mining Company, Mine Felix District, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 2d day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable on the 3d day of April, 1866, in United States gold and silver coin, to the Secretary, at his office, 644 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 8th day of May, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 30th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. A. BAUER, Secretary.

Office, 644 Washington street, San Francisco, Cal. ap7

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
B Austin	358	50	$ 5 00
N Tack	271	100	10 00
N Tack	272	100	10 00
N Tack	273	50	5 00
N Tack	274	50	5 00
D F Richards	238	600	60 00
D F Richards	239	50	5 00
D F Richards	240	50	5 00
D F Richards	241	100	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Maurice Dore & Co., No. 327 Montgomery Street, San Francisco, Cal., on the 28th day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

ap14 C. HEYWOOD, Secretary.

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 31st day of March 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 305 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 5th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. S. LITTY, Secretary,

Office, 305 Montgomery street, San Francisco, Cal. ap5

Mosquito Quartz Mining Company.—Location of Works: Calaveras County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 31 day of March, 1865, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
A Borel	52	5	$25 00
A Borel	220	39	195 00
D Davidson	117	5	25 00
T Goodchaux	167	12	60 00
Robert Irwin	134	1	5 00
B Levy	75	2	10 00
R R Maurice } J Percy }	201	1	5 00
F Rollet	192	2	10 00
H Schmitt	178	5	25 00
H Schmitt	194½	5	25 00
P Torrie	111	4	20 00
P Torrie	112	4	20 00
P Torrie	113	2	10 00
G Touchard	223	16	80 00
F J Wilson	222	4	20 00
S M Wellhoff	100	2	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 3d day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 826 Montgomery street, San Francisco, Cal., on the 23d day of April, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

E. H. WATERS, Secretary,

Office, 536 Clay street. ap7

POSTPONEMENT.—The above sale is hereby postponed until Saturday, the 28th day of April, 1866, at the same hour and place. By order of the Board of Trustees, duly made and entered on the records of the corporation.

ap21 E. H. WATERS, Secretary.

PREMIUMS.

1st Premium, at Sacramento Fair.....1862

1st Premium, at S. F. Bay District.....1862

1st Premium at Sacramento.....1863

1st Premium, at San Francisco.....1864

1st Premium, for Cordials.....1864

1st Premium, for Hygienic Bitters....1864

Awarded to

V. SQUARZA.

Madison Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
John Bicknell	131	15	$ 7 50
Peter Brust	121	3	1 50
Peter Brust	132	7	3 50
S O Clifford	117	10	5 00
S O Clifford	55	5	2 50
H F Cutter	65	10	5 00
B W Crowell	125	5	2 50
D F Coll	127	6	3 00
D F Coll	128	7	3 50
Jonas G Clark	130	10	5 00
Jonas G Clark	134	10	5 00
John Reardon	124	10	5 00
A N Davis	122	5	2 50
A B Gayle	137	5	2 50
Chas G Going	100	20	10 00
Chas G Going	101	6¼	3 25
Chas G Going	102	5	2 50
Chas G Going	103	5	2 50
Chas G Going	104	10	5 00
Chas G Going	105	10	5 00
John Garber	108	10	5 00
John Garber	109	10	5 00
John Garber	110	10	5 00
R G Huffaker	77	10	5 00
E V Hatfield	78	10	5 00
S C Jewett	76	10	5 00
T G Johnson	132	6¼	3 25
S Lathrop	133	10	5 00
P McAlaster	24	10	5 00
P McAlaster	25	10	5 00
C F Meyers	111	7	3 50
C F Meyers	135	2½	1 25
Arthur Moor	113	5	2 50
Chas McElvy	123	10	5 00
E Northrup	31	10	5 00
E Northrup	30	10	5 00
C M Pryor	39	5	2 50
C M Pryor	41	10	5 00
C M Pryor	42	10	5 00
C M Pryor	44	10	5 00
C M Pryor	45	10	5 00
C M Pryor	46	10	5 00
B L Plummer	79	10	5 00
B L Plummer	80	10	5 00
B L Plummer	81	10	5 00
B L Plummer	82	10	5 00
B L Plummer	88	10	5 00
B L Plummer	136	10	5 00
A G Stiles	73	5	2 50
John Spencer	84	20	10 00
John Spencer	85	30	15 00
R Snyder	95	10	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the company, on the 30th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. ap14

Monitor Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent, upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
H W Bradley	11	13	$9 75
Charles Bertody	89	10	7 50
J F Bartholomew	102	16	12 00
Wm H Cbevers	18	7	5 25
A P Cox	74	10	7 50
A P Cox	75	4	3 00
Jas Camp	88	10	7 50
L Dinklespiel	25	5	3 75
S H Greene	83	9	8 75
W B Barker	82	5	3 75
R W Heath	10	11	8 25
Jno W Harker	59	4	3 00
N B Jacobs	65	25	18 75
T E Lindenberger	1	3½	2 62
T E Lindenberger	79	6½	4 87
J M Shotwell	71	30	22 50
O V Sawyer	78	5	3 75
Anna K Turner	26	6	4 50
John Wightman	14	7	5 25
J J Williams	84	3½	2 62

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 30th day of April, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. ap14

North Star Gold and Silver Mining Company, Reese River Mining District, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 9th day of April 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately to the Secretary, GOTTLIEB BEER, No. 225 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 14th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 6th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GOTTLIEB BEER, Secretary.

Office, No. 225 Front street, San Francisco, Cal. ap21

Oregon Gold and Silver Mining Company, Lander County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 14th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Ayres, W O	86	20	$ 5 00
Allen, H H	111	2	50
Allen, H H	203	5	1 25
Bee, A W	138	36	9 00
Buel, D E	207	2	50
Blake, G M	58	4	1 00
Blake, G M	45	8	2 00
Blake, G M	192	1	25
Bowman, Jno S	91	4	1 00
Bower, George	181	20	5 00
Bachman, N S,	187	10	2 50
Crane, Israel	172	5	1 25
Chapin, S A	188	10	2 50
Cutter, H F	61	4	1 00
Cutter, H F	186	18 4 21	4 55
Cohn, Samuel	189	14	3 50
Deltebach, S M	105	10	2 50
Dinkelspiel, L	132	10	2 50
Davidson, Jacob	145	10	2 50
Earl, E M	152	30	7 50
Francis, D B	2	10	2 50
Francis, D B	9	10	2 50
Frank, J	117	20	5 00
Frank, J	193	8	2 00
Fish, Mrs Emma T	217	2	50
Fassett, N C	71	2	50
Greene, Samuel H	8	8	2 00
Greene, Samuel H	10	8	2 00
Greene, Samuel H	67	2	50
Greenbaum, A	155	10	2 50
Gentry, Abner	164	50	12 50
Grinbaum, M S	173	50	12 50
Grinbaum, M S	174	50	12 50
Heath, R W	4	12	3 00
Heath, R W	11	12	3 00
Heath, R W	60	2	50
Hanchett, H H	23	10	2 50
Hess, S	195	20	5 00
Herrington, W C	208	2	50
Haas, C S	100	15	3 75
Heinebers, A	194	8	2 00
Harker, J W	200	3	75
Hutchins, W P	201	6¼	1 56
Job, Jerry	125	10	2 50
Newmark, M J	113	5	1 25
Newmark, M J	183	30	7 50
Perley, D W	20	20	5 00
Perley, D W	21	10	2 50
Perry, R	55	1	25 00
Rosenbaum, F H	7	5	1 25
Rice, H F	199	30	7 50
Strauss, M	93	10	2 50
Smith, A N	23	50	12 50
Simonsfield, Julius	98	10	2 50
St nuss, Emanuel	78	10	2 50
Salomon, Sylvan	108	2	50
Stateler, J W	133	10	2 50
Stateler, J W	134	10	2 50
Stateler, J W	135	10	2 50
Stateler, J W	136	10	2 50
Stateler, J W	137	10	2 50
Sharp, Geo F	157	4	1 00
Sinsheimer, S	191	10	2 50
Tiue, J W	165	10	2 50
Wigbman, Jno	60	4	1 00
Work, J W	65	2	50
Weill, Alex	74	5	1 25
Weill, Alex	106	5	1 25
Weill, Alex	146	10	2 50
Wheeler, M A	130	20	7 50
Wheeler, M A	129	20	5 00
Woodleaf, H	118	20	5 00
Woodleaf, H	140	10¾	2 67
Waterman, E R	128	2	50
Litchfield, W D	48	1	25
Litchfield, W D	204	1	25
Lindenberger, T E	49	1	25
Levy, Isaac	167	20	5 00
Levy, Isaac	168	20	5 00
Levy, Isaac	169	20	5 00
Levy, Isaac	170	20	5 00
Levy, Isaac	171	10	2 50
Moultou S & M Co	13	10	2 50
McManus, M	77	6¼	1 57
Manheimer, J	175	10	2 50

And in accordance with law, and an order of the Board of Trustees, made on the 14th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the company, on the 1st day of May, 1888, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco, Cal. ap14

Santa Cruz Petroleum Oil Works Company—Location of Works: Santa Cruz County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment No. 15, levied on the 10th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bradley, Patrick	505	10	$ 5 00
Bradley, Patrick	506	10	5 00
Curtis, Lucien	584	6	3 00
Curtis, Lucien	594	25	12 50
Gray, R B	198	50	25 00
Gray, R B	323	7	3 50
Gallagher, F D	740	10	5 00
Lindan, A	744	45	22 50
Langdon, Samuel	173	20	10 00
Langdom, Samuel	174	20	10 00
Langdom, Samuel	175	20	10 00
Langdom, Samuel	170	20	10 00
Langdom, Samuel	222	50	25 00
Langdom, Samuel	342	11	5 50
McComb, James	739	25	12 50
Moore, J H	325	300	150 00
Neville, Mrs A E	693	5	2 50
Ransom, Mrs A M	313	4	2 00
Ransom, Mrs A M	602	19	9 50
Ransom, Lee J	694	5	2 50
Reichert, I A	500	10	5 00
Sheldon, J P	732	30	15 00
Sheldon, J P	733	200	100 00
Tillinghast, W H	1	30	15 00
Tillinghast, W H	351	4	2 00
Tillinghast, W H	499	50	25 00
Tillingbast, W H	714	16	8 00

And in accordance with law and an order of the Board of Trustees, made on the 10th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Cobb & Sinton, No. 406 Montgomery street, San Francisco, Cal., on Saturday, the 28th day of April, 1868, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco. ap14

United States Mining Company.—Location: Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of April, 1866, an assessment of one dollar per share was levied on each and every share of the capital stock of said company, payable immediately, in gold coin of the United States, to the Secretary, at his office, or to Da. T. H. PINKERTON, South B street, Virginia, Nevada

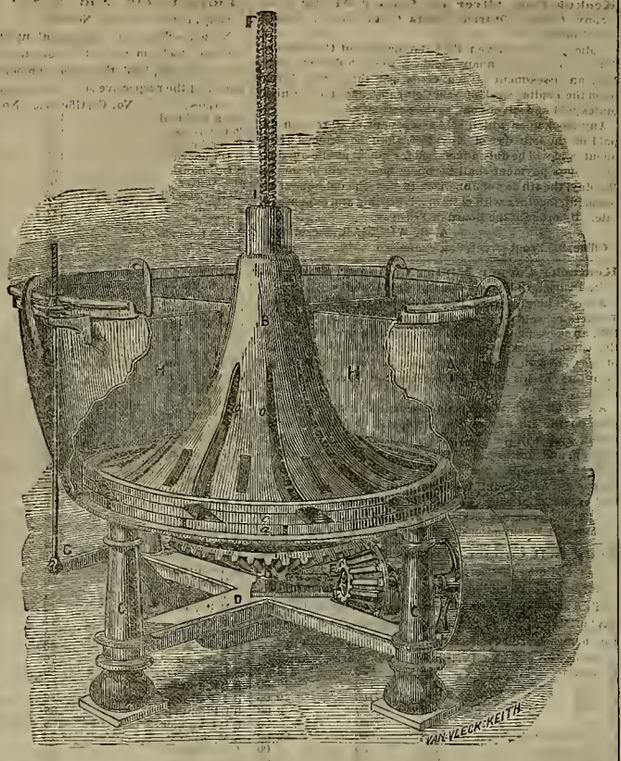
Any stock upon which said assessment shall remain unpaid on Saturday, the 26th day of May, 1866, will be advertised as delinquent, and unless paid, will be sold on Wednesday, the 13th day of June, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. ad21

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,



The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

Machinery.

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,

Virginia City, Nevada,

15v11tf Through Wells, Fargo & Co's Express.

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.

15v12-3m

NEW MINING PUMP.

Excelsior Double-Acting Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind mill, horse, or steam-power.

No. 1—Cylinder 2½ in., stroke 6 in.
No 2—Cylinder 3 in., stroke 7 in.
No. 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No 5—Cylinder 6 in., stroke 18 in.

The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,

12v12-3m 120 Front street,

Prater's Concentrator.

NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Dinsmore's Machine and Iron Works,

SAN FRANCISCO.

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

Address: MORGAN HUNGERFORD,

10-v12 San Francisco, Cal.

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the

PACIFIC FOUNDRY,

1v1 San Francisco.

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,

— AND —

THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.

4vl0

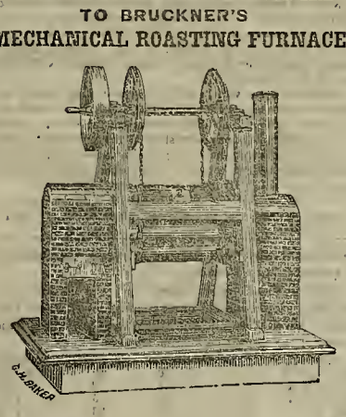
The Mechanics' Institute

AWARDED A

PREMIUM SILVER MEDAL

TO BRUCKNER'S

MECHANICAL ROASTING FURNACE.



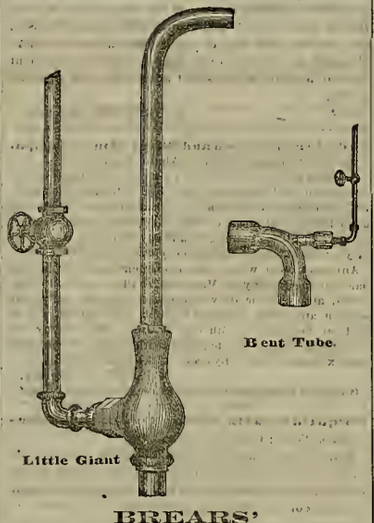
Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,

12v11 416 Market street, San Francisco.

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

TO PLACER MINERS AND OTHERS.



BREARS'
Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE,

No. 320 Pine street.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 245 First street, San Francisco.

LIST OF PRICES:

LITTLE GIANT.		BENT TUBE.	
Brass	$65	Iron, 4 in di	$100
Iron	50	" 3 in. di	75
		" 2 in. di	50
		" 1½ in. di	35
		Brass, 1 in. di	25

13-v12

PETROLEUM STOVES.

A MOST USEFUL INVENTION FOR ALL manner of COOKING and for IRONING, without any litter, as ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Cooking by them is divested of its disagreeableness, and becomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,

Proprietors for California.

San Francisco, March 3d, 1866. 10-v12

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 DEVOE, DINSMORE & CO.

Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

[Written for the Mining and Scientific Press.]

From Tuolumne County.

[BY OUR SPECIAL CORRESPONDENT.]

EDITORS. PRESS:—The mines in this neighborhood are so numerous, and the proprietors and superintendents are so obliging and communicative, that my notes are too voluminous to be all transcribed, and I shall have to content myself with a general notice of the various districts *en passant*.

Most of the productive mines in this district are those situated on the "mother vein," as it is here called, or the great range of quartz running through the country from northwest to southeast. The principal mines on this range are the Rawhide Ranch, Golden Rule, and that of Jno. App & Co., noticed last spring.

AT THE RAWHIDE RANCH,

A fine new 20-stamp mill is in course of erection by the present proprietors, who are represented by Capt. Johnston. It is to be driven by steam, the engine used for driving the machinery at the last Mechanics' Fair in San Francisco, having been purchased and sent out for that purpose. Two of Wheeler's flat-bottomed pans are being put in to work sulphurets. The mill is by far the finest yet built in this county. An incline has been sunk on the vein to a depth of 130 feet, a drift 130 feet in length having been run at a depth of 120 feet. The shaft is large and well timbered, and everything about the mine wears an appearance indicative of permanence and reliability. The vein has a dip of thirty degrees to the northeast, and is about twelve feet wide in the lower level. No rock has been crushed since the mine came into the hands of the present owners.

THE GOLDEN RULE COMPANY

Have completed a fine 15-stamp mill, erected since my last visit. It is driven by water-power, furnished by an overshot wheel fifty feet in diameter. I was informed by Mr. A. S. Phifer, the superintendent of the company, that the quartz crushed in the old mill during the past year paid an average of $37.50 per ton, while the expense of mining, hauling and crushing averaged $19.50 per ton. They are now taking out some of the best rock that the mine has ever furnished, and its prospects were never better.

THE MINE OF JOHN APP & CO.

Has reached a depth of 130 feet below the tunnel, and looks better than ever before. It has been paying from twelve to fifteen dollars per ton. The mine has been conditionally sold for $120,000, but Mr. A. expresses the hope that the purchasers will fail to comply with the conditions, as the mine is evidently worth more than that sum.

Half a mile northwest of the Rawhide ranch is the

CHAPPARAL HILL CLAIM,

Consisting of 1,480 feet on the "Mother vein," and is owned by Messrs. Mitchell and Oliver, who have sold it conditionally to Mr. C. T. Meader, at whose expense it is now being prospected. A tunnel has been driven northward from a gulch in the middle of the claim, a distance of 300 feet. Sixty feet from the mouth of the tunnel a shaft is being sunk which is now ninety feet deep. The paying portion of the vein is about three feet wide at the top, while the shaft, six feet wide, is wholly in at the bottom. The croppings of the vein show gold throughout the whole length of the claim. The rock from the bottom of the shaft is looking well. Mr. Meader has, undoubtedly, made a good investment.

North of the Chapparal Hill claim, and adjoining it, is that of

QUINBY & CO.,

Of 1,000 feet. The "pay" is here confined to a stratum on the east side of the vein, which, at the surface, is only about two inches thick, but increases at a depth of forty feet to a thickness of one foot. Ten tons of quartz were lying on the dump, which Mr. Q. informs me has been assayed by Mr. Thomas Price, of San Francisco, and found to be worth $250 per ton.

THE TABLE MOUNTAIN TUNNEL COMPANY,

Have abandoned their old tunnel at Humbug Hill, on account of its inconvenience to most of their ground, and have run a new incline, 1,000 feet northwest of the old one. It is now 551 feet into the mountain, and connects southward with the old works and drain tunnel. The claim has been paying well for the past year.

THE CLAIM OF HESLEP BROTHERS,

At Quartz Mountain, the location of which was more fully described last spring, has been opened to a depth of forty feet, producing rock

of a character very similar to that from the Golden Rule, being principally slate, with thin streaks of quartz. It has paid, as I am informed by Mr. B. F. Heslep, from twelve to fifteen dollars per ton during the past year, and seems to be constantly improving. The thickness of the vein at the bottom of the shaft is about four feet. Negotiations are said to be on foot for the sale of this mine to some San Francisco capitalists, who will proceed at once to open it on a large scale.

Nimmon & Co's mine seems to be in about the same condition as a year ago, the proprietors still failing to agree among themselves, and being all short of capital, work goes on very slowly. I noticed a new engine on the ground, however, ready to put up for hoisting purposes. This will make the working of the mine a much more economical matter.

A side vein, east of the principal Carson lead, was discovered in the latter part of last August by Mr. John Knox. His works are situated about half a mile due south from Heslep's. A shaft has been sunk to a depth of seventy four feet, and a drift sixty feet long has been run, disclosing a vein from four to ten inches thick, dipping to the eastward at an angle of about forty degrees. Several tons of the rock have been crushed at Heslep's mill, paying from $25 to $60 per ton.

THE EAGLE G. M. COMPANY,

Of Blue Gulch, near Jackeonville, and some six miles south of this place, has one of the most promising locations on the Carson lead. Mr. Peter Musser is superintendent, and most if not all of the stock is owned by persons residing in Philadelphia, Pa. This claim is admirably situated for working. A tunnel 125 feet long, run by former owners of the mine, opens the vein at a depth of 112 feet. North of this tunnel is a chimney of rich ore about three feet wide and 175 feet long. The chimney south of the tunnel has been worked out down to the level of the tunnel; but the indications on the surface would seem to show that it was about 200 feet long. At the end of the tunnel a chamber has been excavated of sufficient size to accommodate a "whim," and Mr. Musser has sunk a shaft on the vein to a depth of ninety feet. The first quartz was struck at a depth of thirty feet, and in the bottom of the shaft the vein is three feet wide, yielding as fine quartz as I ever saw, estimated by Mr. M. to pay fifty dollars per ton. The walls of the vein are very smooth, and well defined, giving strong evidence of the permanency of the vein. The company own an excellent water-power, and have erected a very good 10-stamp mill, driven by an overshot wheel of forty feet in diameter.

About a mile and a half southeast of the Eagle, and near the town of Placerville, is the mine of the

OHIO COMPANY,

Of New York, Mr Kelly, superintendent. The vein has been opened by a tunnel 400 feet long on the "lead," and to a depth of 100 feet below the surface. The tunnel is connected with the surface at its northwest end by an air shaft; while at a distance of 250 feet from the mouth Mr. K. has begun to sink below the tunnel. At this point, the three veins, which together constitute the Carson lead, seem to come into one. The best paying portion is on the eastern wall, and is about four feet thick, and is estimated by Mr. Kelly to pay from nine to twenty-five dollars per ton—average, ten dollars. The mill of ten stamps is driven by a wooden turbine wheel, which does not seem to work well. Two of Prater's concentrators are in use, and two of Knox's pans. Everything about the mill, except the power, seems to be very good.

Business at Sonora, and, in fact, throughout the upper part of the country, is very dull, especially at this season of the year. One of the institutions which is still doing a good business in spite of the dull times, is the

SONORA FOUNDRY,

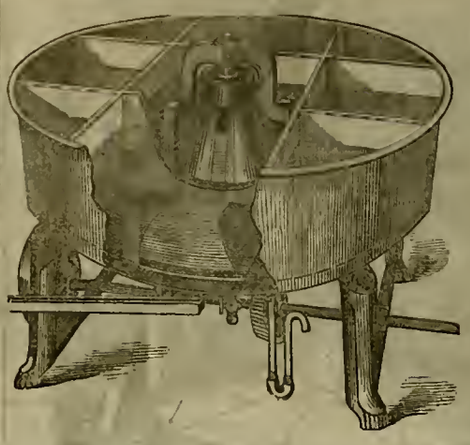
Owned by Messrs. Phelps and Cowie. The machine shop is 45 by 65 feet, and contains two horizontal lathes, one capable of turning a shaft of two feet in diameter, and the other one of twenty-two inches diameter, and nineteen feet long, one upright lathe of six feet in diameter, two drilling machines and a planing machine, with plate twenty-six inches wide by six feet long. The furnace is capable of melting 5,000 pounds of iron daily. The fire-proof room for the storage of patterns is 30 by 35 feet; pattern-shop 45 by 65 feet. The blast and machinery are driven by water-power.

The past week I have spent principally in the mountains above Sonora and Columbia, where I visited a large number of mines, some of which are equally worthy of notice as any of those above mentioned, but want of space compels me to defer the matter. Among those especially deserving of note, are the Consuelo and Bonita on the North Fork of the Tuolumne, three miles south of Summersville, the Independence, the Comstock, and the Excelsior and Mount Vernon at Sugar Pine, fifteen miles East of Sonora, all of which I hope to be able to describe in a future letter. D.

Jamestown, April 7th, 1866.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of EIGHT YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

For further particulars, inquire of ISRAEL W. KNOX, OR W. A. PALMER, Inventors,

14v13-p12q At the Golden State Iron Works, No. 19 First street, San Francisco.

HEUSTON, HASTINGS & CO.,

—THE—

FASHIONABLE CLOTHIERS

OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLES

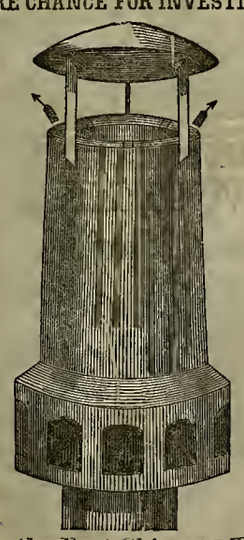
—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12-3m At Reduced Prices.

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE FOR STATES, TOWNS AND COUNTIES.



For the Best Chimney Top

Ever Invented—Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel. Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee, B. A. HENRIKSEN,

Or J. E. JOERGENSEN,

12v12 3m No. 323 Kearny street, San Francisco.

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by TREADWELL & CO.,

3v12-3m Corner of Front and Market streets.

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

BAUX & GUIOD'S Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; its small cost; its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jefferson-lan Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Graff's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK, EMbracing all Modern Improvements, suitable for Mining, Milling, or other purposes. Will be sold at Manufacturers' rates and charges.

Apply to A. E. CRANE,

16v12-3m 310 Washington Street, up stairs.

FOR SALE

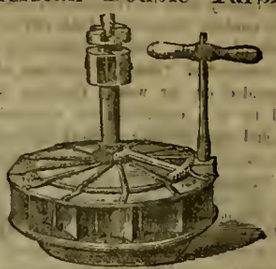
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to HEYNEMANN & CO.,

26v11tf 311 and 313 California street.

LEFFEL'S

American Double Turbine WATER WHEEL.



THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction wherever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 300 feet fall; Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

KNAPP & GRANT,

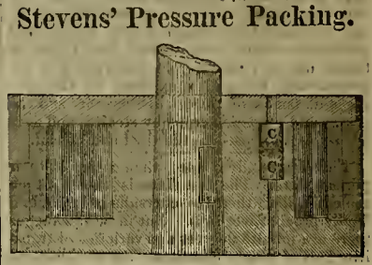
—ALSO— San Francisco.

Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by KNAPP & GRANT,

12v12-3m San Francisco.

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of PISTONS steam-tight.

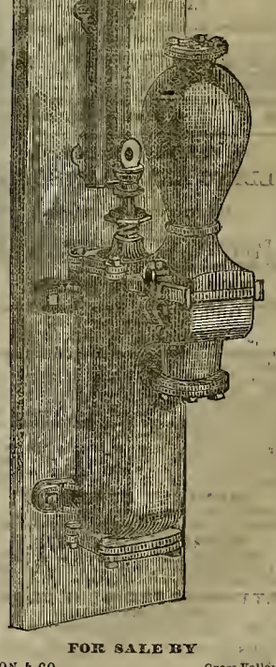
STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df ANDREW STEVENS.

Six-Inch Mining Pump.

THE HANSBROW PATENT PUMPS! Warranted the Best Pumps Offered. All Sizes for Any Purpose.



FOR SALE BY

JOHNSON & CO. ..... Grass Valley, Cal.
CRAWFORD, LEAVETT & CO. ..... Nevada, Cal.
GEORGE E. TURNER ..... Nevada, Cal.
JACKSON & BLISS ..... Stockton, Cal.
FRANCIS SMITH ..... Austin, Nev.
THOMAS HANSBROW ..... Sacramento, Cal.

And Hardware Dealers Generally.

WHOLESALE AGENTS:

LOCKE & MONTAGUE,

112 and 114 Battery street, San Francisco.

Send for Catalogue and Price List. 16v12-1m

CALIFORNIA MADE CLOTHING.—The proprietors of Quiocy Hall, on Washington street, are rapidly clothing the people of this city io cloth of California make. Their description of clothing is innocent of "shoddy," and can nlways be depended on for wear. Clothing is furnished by this establishment wholesale or retnil, and made to order at the shortest notice. Californians should on all proper occasions make it a point to support home manufactures.

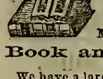
THE PROPOSED TUNNEL BETWEEN ENGLAND AND FRANCE.—Eastern papers state that a report is current at Paris that an agent from some heavy capitalists and contractors, who propose to establish a tunnel under the sea, from Dover to Calais, bas arrived in Paris. The agent, it is said, is commissioned to apply to the Emperor for permission to make borings on the French soil, in order to ascertain the practibility of the scheme.

SYRIAN AORICULTURE.—The "Holy Land," so fruitful in the days of the chosen people, is now neglected. The land is for the most part fertile, and might be profitably cultivated, were it not for the disfavor with which agriculture is regarded by the government. The implements employed in tilling the soil are very rude, being, in fact, the same as those used io the days of Abraham, Isaac and Jacob. Still, even with this cultivation, the crops are large, affording evidence of how much larger enlightened cultivation might make them. The *fellah* or farmer not only suffers from the tyranny of the governmeot, but is also exposed to the outrages of bands of roviog Bedouins; and he plants and reaps his crops by stealth, and only where least exposed to the thief and official.

FEW insects live more than a year in their perfect state. The first state is the egg, then the caterpillar, then the chrysalis or pupa, and finally procreative form. But io these changes there are iofinite degrees and varieties of transition, all of which coostitute the pleasing and very instructive study of entomology.

STOCK CERTIFICATES,
STOCK TRANSFER JOURNALS,
STOCK LEDGERS,
ASSESSMENT RECEIPTS,

And all other Blanks, Blank Books, etc., required by Mining and other Corporations, kept on hand or printed to order on short notice, at moderate prices, at the office of the MINING AND SCIENTIFIC PRESS.



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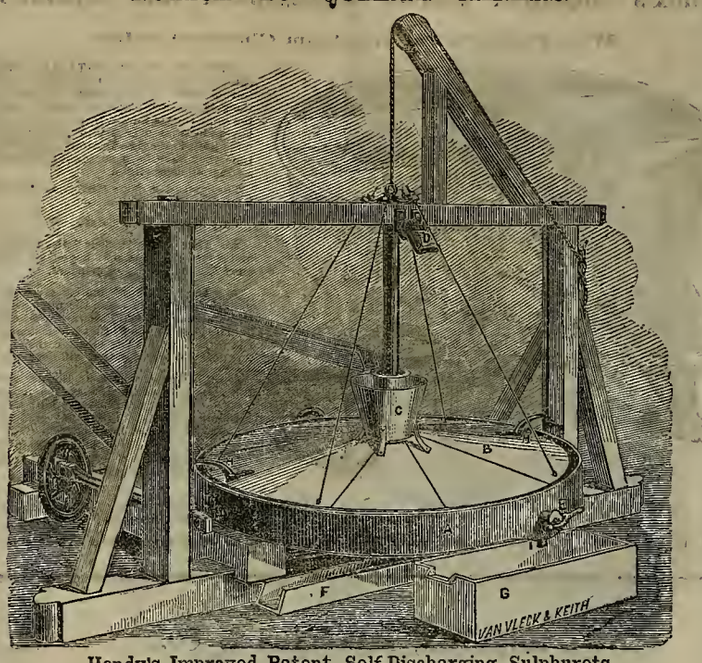

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Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
Six Concentrators for the Benton Mill, Bear Valley, Mariposa Co. ordered by Messrs Dodge & Bro, San Francisco.
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☞For explanation of the above engraving, and other particulars, send for a Circular.

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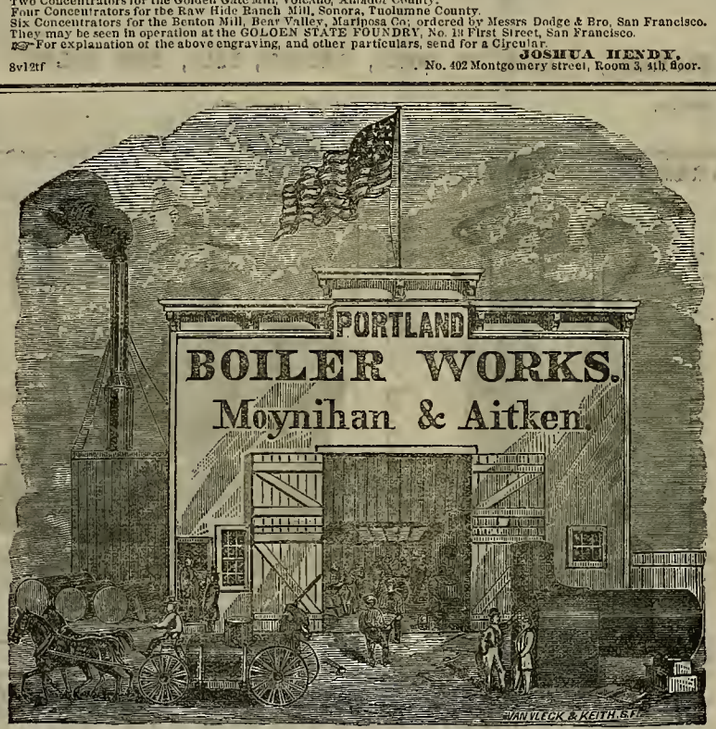

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CAUTION.

TO WHOM IT MAY CONCERN:—THE PUBLIC ARE hereby notified that a patent was allowed, December 27th, 1864, and issued June 27th, 1865, to PROFESSOR HENRY WURTZ, for the use of sodium and amalgams thereof with quicksilver, in the extraction of precious metals from their ores. All persons using said amalgams, or purchasing or selling sodium or said amalgams for use in the treatment of gold or silver ores, are hereby cautioned that they will be prosecuted to the full extent of the law.

The patents of Professor Wartz have been assigned to the Wurtz Amalgamation Company of New York city. It is the intention of the said company soon to appoint agents for California and the other mining States and Territories. In the meantime, applications for licenses to use sodium and its amalgams may be addressed to the company, at their office, No. 57 Broadway, New York.

C. ELTON BUCK, Secretary.
March 9th, 1866. 14v12 6t

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Third Edition revised and enlarged.
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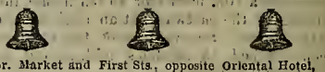

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Mining and Scientific Press.

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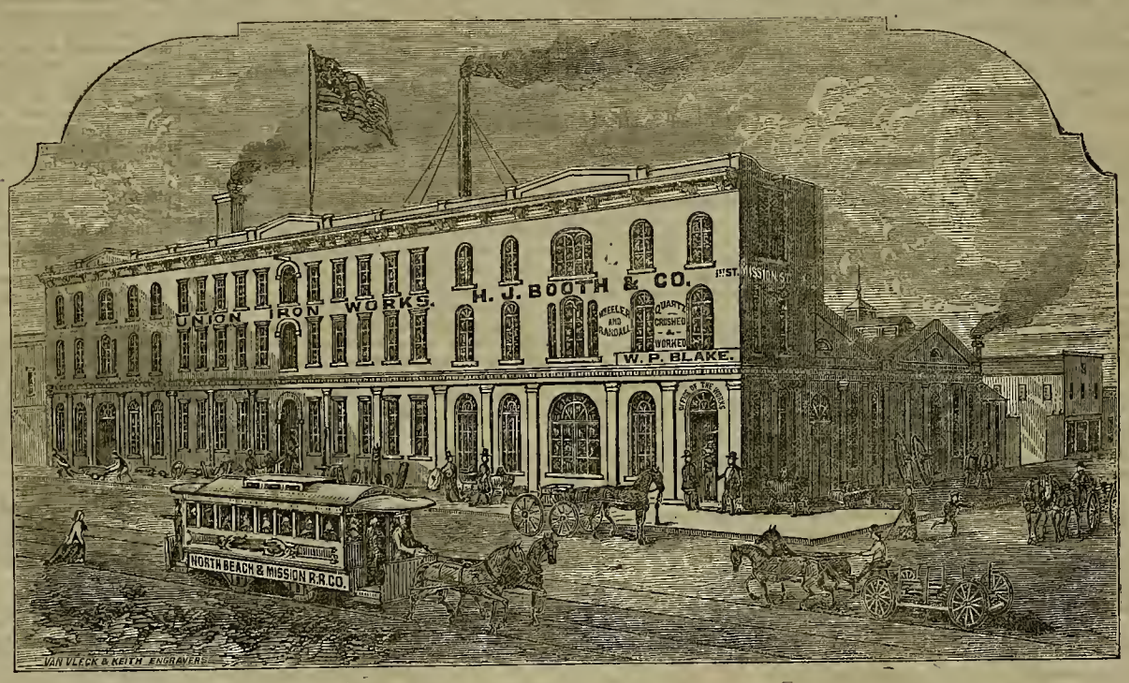
DEWEY & CO., PUBLISHERS And Patent Solicitors.

SAN FRANCISCO, SATURDAY, MAY 5, 1866.

VOLUME XII. Number 18.

THE UNION IRON WORKS.

The engraving which we here present ta our readers is an excellent representation of the most extensive foundry and machine shop yet established upon this coast, and one which will bear a favorable comparison in its various appointments with any of the iron shops in the older cities of our Union. These works are situated on First street, but a few steps from the very center of our flourishing city. During the past year an important addition has been made ta these buildings, as shown in the illustration. In giving the view of these buildings, we have deemed it a fitting season, and a matter of interest ta our readers, to accompany the same with some information regarding the owners and parties connected therewith.



The Union Iron Works were founded early in 1849, by Messrs. James and Peter Donahue, and consisted of a small rude furnace and a few inferior tools, unprotected from sand and storm. The furnace blast was produced by two blacksmith bellows. At these works, soon after their commencement, was made a "steady or spring bearing" for the ocean propeller McKim. This was the first *iron casting* turned out on the Pacific Coast, and was made at fifty cents a pound. It may now be seen at the Mechanic's Institute, California street. Here among the sand hills of San Francisco, the Donahue Brothers built up a large business, and laid the foundations of their princely fortunes. From time to time they enlarged and improved their establishment in its various departments, evincing the determination to keep it in advance of other similar works which sprung up around them. In 1856, James sold his entire interest in the property to his brother Peter, who immediately built of brick a large and commodious machine shop and foundry on the site of his roofless workshop of 1849, and carried on the business in his own name. At this time the works occupied an area of upwards of fifty thousand square feet.

Mr. Donahue, however, being eminently a representative of Californian and of his country's interests, engaged in City, State and National enterprises so extensively that he was unable to exercise much personal supervision over the mechanical branch of his business, which, in consequence, and through incompetent agents, fell off greatly.

In 1863 he formed a copartnership with H. J. Booth, of the Marysville Foundry, and C. S. Higgins, formerly of Freeman's Express, under the name and style of Donahue, Booth & Co. Mr. Booth had carried on the foundry business in California with marked ability and success about twelve years. No well-known citizen was more highly respected throughout the country. He brought to the firm an enviable reputation as a man of enterprise, talent and probity—an excellent financier and a thorough mechanic. Mr. Higgins was also well known as a gentleman of active business qualifications. But jealousy as to supposed rights and real or imaginary conflicting interests prevented that harmony among partners so necessary to success; and the firm in consequence failed to resuscitate the business. In 1865, Donahue, Booth & Co. sold their interest to H. J. Booth & Co., a new firm composed of H. J. Booth, G. W. Prescott and I. M. Scott.

Mr. Prescott, since 1859, has been a partner of Mr. Booth in the Marysville Foundry,—one of the largest and most successful establishments of the kind in the State,—of which at present he is the manager. We regard him as a gentleman of sound judgment, unswerving integrity, and ripe experience in all things relating to his vocation.

Mr. Scott came to California in 1860, and until the past year followed his profession of draughtsman, exercising, as we are informed, at the same time a general supervision over the work where he was engaged. He bears an unblemished reputation. If, on becoming a member of the firm of Messrs. H. J. Booth & Co., he had comparatively little capital, he brought to the concern that which is much better—energy, mechanical talent and an excellent executive capacity. The new firm, Mr. Booth attending to the contracting and financial department, and Mr. Scott to the mechanical, had had control of the Union Iron Works but a few days, when the change was apparent in the new life exhibited in every department of the establishment. Every tool and working machine was soon found in operation day and night. The press of work became so great that several other machines larger than any hitherto used on the Pacific coast, were imported. With twenty-three lathes of various sizes, from nine feet swing and thirty-four feet long, with double heads, to twelve inch swing; eight planers, some working six and a half feet square and twenty-six feet in length, with double heads; twelve drills; several gear cutters; boring mills and slotters; one fifteen around him. "You know your duty, do it or leave—a mistake is inexcusable." Illustrative of their sagacity in the selection of foremen, may be mentioned the name of Mr. Wm. R. Eckart, their chief draughtsman. Not only is Mr. Eckart most highly accomplished in his profession, and in analytical and practical mechanics, but he possesses inventive power in an eminent degree.

His Steam Pump, Smut Machine, Portable Engine, Fan, Cut-off Valve Indicator, and the Balance Valve Cut-off Engine, and Slide Valve Cut-off Engine, of Scott & Eckart, are of the highest practical importance. At the Mechanics' Institute Fair, in San Francisco, 1865, two medals were awarded to Mr. Eckart: one of silver, for his Cut-off Valve Indicator, and one of gold, for the Slide Valve Cut-off Engine, of Scott & Eckart. This Engine, manufactured by Messrs. H. J. Booth & Co., both as to design and construction, is a machine of which California may well be proud. One of the same design and about one hundred horse-power is employed by the Company to run their works.

But with Messrs. H. J. Booth & Co., the manufacture of steam engines is not a specialty. It may rather be inferred from the quantity of work done at their establishment, and from the amount of their correct data and valuable information obtained from the most reliable sources, relative to the comparative merits of the mining apparatus in use, that Quartz Machinery receives more of their special attention. Since the formation of their copartnership—Mar. 16, 1865—they have manufactured two hundred and twenty stamps, ninety-seven grinders and amalgamators, and forty-four separators, besides a large amount of other quartz machinery.

Among the machines of their manufacture, they make special mention of the Excelsior Grinder and Amalgamator, and state that its practical workings fully confirm the demonstrations of Mr. Randall, as published in the "Quartz Operator's Hand Book," and that it appears to be supplanting other grinders and amalgamators.

The Union Iron Works not only excels in the manufacture of steam engines and quartz machinery, but is the heaviest establishment in the manufacture of all descriptions of machinery needed on the Pacific Coast. The proprietors are enabled by their extra facilities, judicious selections, and the perfect system running through the various branches of their business, to accomplish a much greater amount of work per man than any ordinary establishment. *Quality*, rather than *quantity*, is claimed to be their constant motto, and as evidence to this, they refer with much satisfaction to the superior workmanship of each job leaving their establishment.

By the recent change, the School session for children under eight years of age, is limited to four hours a day,—a very wise provision.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

From Tuolumne County.

BY OUR SPECIAL CORRESPONDENT.

[Continued from page 271.]

Editors Press: Since my last writing, my notes have grown so numerous and extensive that it is almost a matter of impossibility to include them all in a letter of reasonable length, so I hope that many of those whose mines I have visited within the past few weeks will kindly excuse me if they should not find so extensive a notice as they deserve.

On the 9th inst., I took dinner with Mr. Musser, of the Eagle, on my way from Jamestown to Big Oak Flat. Some very fine new developments had been made since my previous visit to this mine, and I was delighted with the improved appearance of the vein; Mr. M. entertaining, and justly too, very high hopes for the future richness of this mine.

I arrived about dark at the "Flat," where I found about the same state of things as last year, only a little duller. Some improvements, however, have been made. Among these is a fine new 10-stamp mill, nearly complete, at the lower end of the "Flat," nearly on the site of one that was burned down a few years since. The Nonpareil mill, at Deer Flat, was idle for want of quartz. Mr. Dupat was busy experimenting with some tailings, by making them into bricks, and baking them in a kiln, after which they are ground in a Farrand's Amalgamator. The amalgamator was running at the time of my visit, but Mr. Dupat did not feel certain of the practibility of the process.

A fine ledge of decomposed quartz, paying twelve to sixteen dollars per ton has been discovered, and is being worked by Messrs. Foote and Burns, near Garrote. The ledge appears to be about forty feet wide, and has been opened by a shaft to a depth of sixty feet. The rock is crusbed dry under the stamps to the fineness of peas, after which it is ground and amalgamated in Varney's pans, three of which are in use.

Another fine well-defined lead situated between Big Oak Flat and Garrote, is owned by Messrs. Snow, of Garrote and Schermerhorn of the "Flat." About 140 tons of ore are now on the dump, which prospects at about the rate of tbirty dollars per ton.

BOWER CAVE.

On the 11th, I stopped at the Bower Cave, on the North Fork of the Merced, and at the request of the proprietor, Mr. Pechard, visited this highly interesting natural curiosity. The cave is situated about 400 feet from the creek, and at an elevation of probably 100 feet above it. It is in a limestone formation, and consists of an open depression about fifty feet deep and about the same distance across, communicating with which on the east side is a subterranean chamber of nearly the same size. A pool of beautifully clear water occupies about half the surface of the bottom of the main depression, while some maple trees, shading the cavern from the rays of the sun, suggest to the mind an amount of enjoyment in the way of summer picnics, not to be found everywhere. The cave is said to have been lined at one time with very fine stalactites, but these have long since disappeared before the throngs of curiosity-seeking visitors who have been attracted thither for the past ten years. Near the cave Mr. Wm. Wright of Coulterville is engaged in building a small quartz mill, to work rock from a vein which he told me was situated about a mile above. In the afternoon, I visited the mine of

BLACK, MUNN & CO.,

Situated near Black's store, about fifteen miles east of Coulterville. The course of the vein is about north and south, with a dip to the eastward of about forty-five degrees. At the time of my visit, the pumping works were out of order, and the mine was nearly full of water. Mr. Munn, however, informed me that the shaft had reached a depth of 160 feet on the vein. The vein near the surface is very much broken, being but little more than a range of quartz boulders, lying between the slate bedrock and the alluvium, which last formation constituted the hanging wall. Mr. M. says that in the bottom of the shaft the vein is solid and about two feet wide. The last crushing is said to have paid forty-five dollars per ton, the rock being taken from the bottom of the present shaft. The pump and hoisting gear are driven by an engine of 10-horse power, and everything goes to sbow that the owners are in earnest in their intention to test the value of the vein.

After returning to Mr. Black's, a ride of three and a half miles brought me to

THE MARBLE SPRING MINE,

Owned by Messrs. Coward, Ralston and Wakelee, of San Francisco. This mine had paid well in former years, but for some time since had been abandoned, until it fell into the hands of the present proprietors, who are going vigorously to work to reopen it. The vein as far as heretofore explored, has been from one to three feet wide, running in a northeasterly and southwesterly direction, with a dip to the southeast of about thirty-two degrees. At the request of Mr. Thomas Armstrong, the superintendent of the mine, I spent the night with him, and in the morning started for Coulterville, stopping for a short time with Mr. W. G. Heslep, formerly of Quartz Mountain, Tuolumne county, who is now working

THE LOUISIANA MINE,

Of which several notices have already appeared in the Press. The vein appears to be from three to six feet wide, about two feet of which is pay rock, assaying from thirty to forty dollars per ton, but of so particularly rebellious a character that it is with some difficulty that even twelve dollars is realized by ordinary process. Mr. H. has lately been trying a *roasting* process, but has thus far been unable to make it work satisfactorily, as the gold in the roasted ore refuses to amalgamate. He expects, however, to give the furnace another trial. Mr. Heslep is well known as one of the most thorough and scientific prospectors in the southern mines, and will probably succeed if any one can.

After dinner I rode down to Coulterville, a distance of about twelve miles, where I arrived a little before night. Coulterville is very dull at this season, and more than usually so, just now.

In the morning, our old friend Capt. Aiken accompanied me on a visit to his claim, known as

THE VIRGINIA,

Situated about two miles southeast of town, on the great Carson lead. A very elaborate report on this vein by Mr. J. E. Clayton, M. E., of San Francisco, was noticed in the Press some time last fall. Subsequent developments more than justify the most sangnine statements in that report. After dinner, I left for Bear Valley, where I arrived a little after dark Saturday and Sunday were spent in Bear Valley, resting from the fatigues of my mountain ride, and obtaining such information as was to be had concerning matters of interest, and a few subscribers to the Press.

THE MARIPOSA ESTATE.

Matters on the Mariposa estate are in a rather precarious condition. The lease of the Dodge Bros. expires in a few weeks, and it is not known whether they will renew it or not, as a consequence of which the employees are generally in anything but a settled state of mind.

In the Benton mills, twenty-four stamps are running on very good rock obtained from a new discovery in the Pine Tree mine, while the Bear Valley mill is supplied from the Josephine. The Princeton is barely paying expenses and a little over, by removing the pillars from the old works. By this means, enough gold has been taken out to pay all the workmen about the mine, and some $3,000 over. No new explorations are going on in this mine, and it is believed that it cannot be reopened at a less cost than $50,000. The Mariposa mill is running a small portion of the time, the miners having leased the mine and mill. The last few runs have not paid more than half wages, while the men regard their back pay as "gone forever." The Mt. Ophir and Greene's Gulch mills have been stopped for months, and part of their material has been removed and sold.

On Monday morning I went in company with Mr. Quierolo, of Bear Valley, to visit the quartz mines of Hunter's Valley. Our first visit was paid to

THE LAFAYETTE VEIN,

Owned by several citizens of Bear Valley. The claim consists of 4,000 feet on a vein running nearly north and south, and dipping eastward at an angle of forty degrees. The deepest opening is by an incline on the vein ninety feet deep. A vertical shaft is being sunk to cut the vein at a perpendicular depth of seventy feet. This is intended for a permanent working shaft, and is large and well timbered. The vein is in slate formation, and is rather irregular in thickness. Its average throughout the old works is probably eighteen or twenty inches, and it has paid the former owners from $20 to $500 per ton. The president of the company is Mr. Samuel Miller, of Bear Valley, who is also superintendent of the works, which latter are now, however, in charge of Mr. H. C. Treon, a practical miner, and one who seems to be giving the best of satisfaction to his employers.

Leaving the Lafayette, we proceeded to the La Victoire copper mine, where Mr. Q. having business he remained while I passed on in company with Mr. Smith, who proposed to act as my guide to the other mines in the Valley. I obtained from Mr. d'Artigue, superintendent of La Victoire some facts concerning the developments of that mine, but as I had no opportunity of exploring the mine, I shall defer a notice of it until such an opportunity shall occur. One and a half miles north of La Victoire, is

THE CARSON AND BARNETT GOLD QUARTZ MINE,

Owned by the gentlemen for whom it is named, and worked under the immediate charge of Mr. Wm. R. Carson. The mine contained so much water that it was impossible to explore the underground works, but Mr. C. informed me that it had been opened to a depth of sixty feet, showing a vein about a foot wide, lying in a north and south direction, with a slight dip to the westward. They have a 6-stamp mill, driven by a 12-horse power steam-engine, which also runs the hoisting works and pump. The rock taken out thus far is said to average $125 per ton. A little farther on we came to the

POTT'S VEIN,

Formerly owned by Mr. Potts, who has sold it, conditionally, to Mr. P. Hussey, of Hornitos, who is now prospecting it. The course of this vein is northeast and southwest, and its width about four feet. It has been opened about ninety feet deep, and has heretofore paid from $70 to $110 per ton, the rock being worked in Floyd's mill. This mine and the Floyd—noticed last year—are under the charge of Mr. d'Artigue, of La Victoire. The latter mine has also been sold, conditionally, to San Francisco parties, for $20,000. The buyers are now prospecting the mine, and have opened it to a depth of 115 feet. The last crushing is said to have paid $75 per ton.

Several other veins in the valley are being prospected with every prospect of success; among which may be specially noted the Mammoth, owned by D. Jones & Co., which is opened to a depth of twelve feet, showing a vein two feet wide, much of the rock showing free gold. About three o'clock we returned to the LaFayette, where we found Mr. Quierolo, and bidding Mr. Smith a pleasant good-bye, we rode back to Bear Valley, well pleased with our ride and its results.

On the following afternoon I left for Colorado, spending the night at Sherlock's. In that neighborhood are a number of mines, principally owned by Chilenos and Italians, some of which would be well worthy of notice; but as my letter is already growing long, I shall have to omit them. The mine of

E. B. ROLLINS & CO.,

On Sweetwater, has been worked by the present owners about four years. It is situated in a granite formation, the strike of the vein being northwest and southeast, with a dip to the northeast of seventy degrees. Its average breadth is from twenty to twenty-two inches, as far as explored. It is opened by an incline 125 feet deep, and by drifts and tunnels on the vein 525 feet. The usual yield is from sixteen to twenty dollars per ton, though some rock has been obtained that paid as much as $250. A 50-horse power steam engine furnishes power for the mill of sixteen stamps, and for pumping the mine and hoisting the ore. The mill is well built, and usually crushes from twelve to sixteen tons in twenty-four hours.

About half a mile above the Rollins' mill is the Ellis mill, of ten stamps, which has been stopped during the past winter, but is now being refitted, and will be started in about a week. After leaving the Ellis mill, Mr. Rollins accompanied me to visit the newly-discovered vein of the

EUREKA QUARTZ COMPANY,

Situated about three miles above Lovejoy's mill, and fifteen miles from Mariposa. We were accompanied to the mine by Mr. Snyder, one of the owners, at whose house I am now staying. The ledge is in a slate formation, running nearly north and south, with a slight dip to the west. It has been opened to a depth of thirty-five feet, and appears to be valuable. Its thickness is from sixteen to thirty-six inches, probably averaging two feet.

To Mr. Snyder, my present host, I am under deep obligations for his kind hospitality, on the occasion of my being caught, when here last spring, in a severe snow-storm. The appearance of things here is much changed since then, and this, which I then regarded as one of the dreariest regions on earth, now appears, in its spring dress, one of the loveliest spots in California. Yours, wanderingly, D.

Mariposa, April 19, 1866.

NEW MINING LAWS.

[Under this caption we shall give, from week to week, several of the different laws relating to Mining, published in our cheap edition of the "New Mining Laws of California and Nevada, passed in 1865-6.]

Chap. LXI.—An Act concerning the Location and Possession of Mining Claims.

[Approved February 27, 1866.]

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

Section 1.—Any six or more persons, who are males of the age of twenty-one years and upwards, holding mining claims in any mining district, or who hold mineral lands not within the boundaries of any established mining district, may form a new mining district, embracing said claims, at a meeting of such persons to be called by posting, for five days, in at least five conspicuous places within the limits of such proposed new district, notices, in writing, stating the place and time for holding such meeting, describing, as near as may be, the limits of such proposed new district, and signed by not less than five of such persons. At said meeting all males of the age of twenty-one years and upward, holding mining claims, or any interest therein, within said limits, may vote, and by a majority vote determine whether said new mining district shall be established, and its boundaries, which shall be within the limits named in said notices; and thereafter the persons so qualified and holding mining claims in such newly established district, shall proceed to select a name therefor and elect a District Recorder, who shall be qualified, as aforesaid. He shall perform all the duties required of him by law, and shall, within thirty days after qualifying, file and record in his office, a record of of the proceedings of said meeting. No district formed under the provisions of this Act, shall be divided by any county line. Mining districts now existing may be continued.

Sec. 2. The District Recorder, so chosen, shall hold his office until the second Saturday of July then next ensuing.

Sec. 3. The annual election for District Recorder shall be held, in each district, on the first Saturday of July, of each year. Whenever a vacancy occurs in the office of District Recorder, by death, resignation or otherwise, such vacancy shall be filled, for the balance of the unexpired term, by special election, which shall be called by means of notices, signed by not less than five claim holders entitled to vote for District Recorder in the district, posted in not less than five conspicuous places in the district, for ten days preceding such special election. The District Recorder shall, in all cases, hold his office until his successor is elected and qualified. It shall be the duty of the District Recorder to give notice of the annual election, by posting notices in not less than five conspicuous places in his district, ten days before said election. All notices of election shall state the place, day and hour of holding the election. The District Recorder, in the several mining districts of this State, shall give notice of the first annual election under this Act. In all cases, in posting notices required by this Act, if practicable, one of said notices shall be posted on the door of the District Recorder's office, and, so far as possible, all elections shall be held at the office of the District Recorder.

Sec. 4. All elections, after the first election, in a new district, formed under this Act, shall be by ballot. Except at the first election in a new district, formed under this Act, none but males, of the age of twenty-one years and upwards, who are holders of claims, or any interest therein, in the district, and who have resided in the district thirty days immediately preceding the day of election, shall be entitled to vote. If the district has not been organized for thirty days, then only such persons who are of the age of twenty-one years and upwards, and who own claims, or any interest therein, in said district, and have resided therein from the time of its organization, shall be entitled to vote.

Sec. 5. At eleven o'clock A. M. of the day of election, and at the place designated for holding the same, those entitled to vote at such election shall choose, *viva voce*, one person to act as Inspector, and two persons to act as Judges, all of whom shall be persons who are entitled to vote at such election. The Inspector and Judges shall appoint two suitable persons to act as Clerks at such election. Immediately thereafter the polls shall be opened, and shall be kept open until sundown, at which time they shall close. The person receiving the highest number of votes shall be declared elected District Recorder of the district, and the Inspector and Judges shall give him a certificate to that effect, which, within thirty days after such election, shall be filed and recorded in the office of the District Recorder by the District Recorder.

Sec. 6. No person shall be eligible to the office of District Recorder in any district unless, at the time of the election, he is entitled to vote for District Recorder in such district.

Sec. 7. Any officer of any election who shall be guilty of fraud in the conducting of any election for District Recorder, and any one who shall knowingly cast an illegal vote, shall be deemed guilty of a misdemeanor, and, on conviction, shall be punished by a fine not exceeding one thousand dollars, or imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

Sec. 8. In case of a continued absence from the district of the District Recorder and his deputy, for thirty consecutive days, his office may, upon the written application of any five persons who are entitled to vote for District Recorder in the district, be declared vacant by any Justice of the Peace in the county.

Sec. 9. Every District Recorder, including those elected under district mining laws, upon retiring from his office, shall hand over to his successor, all moneys, books, papers and records, of

whatever kind, belonging or appertaining to said office.

SEC. 10. In case the District Recorder of any district wishes to resign his office, he shall file his resignation in the office of the County Clerk, who shall, forthwith, in any reasonable manner, notify the people of said district of the vacancy thus caused.

SEC. 11. The District Recorder shall appoint a deputy, for whose official transactions he shall be responsible, on his official bond. The certificate of such appointment shall be filed and recorded in the office of the District Recorder, by the District Recorder, before said deputy enters upon the discharge of his duties. Said deputy shall, under the direction of the District Recorder, do all things required of the District Recorder; and he may hold his office during the pleasure of the District Recorder.

SEC. 12. The District Recorder, elected at any annual election, shall, if qualified, enter upon the discharge of the duties of his office one week after his election. He shall hold his office for one year, and until after his successor is elected and qualified. Any Recorder elected at a special election, or at the first election in a new district, formed under this Act, shall enter upon the discharge of the duties of his office as soon as qualified.

SEC. 13. Each District Recorder, before entering upon the discharge of his duties, shall take the constitutional oath of office, before some officer authorized to administer an oath, and shall execute a bond in the penal sum of five hundred dollars, for the faithful performance of the duties of his office. Said bond shall be approved by a Justice of the Peace of the county in which said district is situated. Said bond and oath shall be recorded in the office of the District Recorder, and filed in the office of the County Recorder, by said District Recorder, within thirty days after entering upon the discharge of the duties of his office.

SEC. 14. It shall be the duty of the District Recorder to furnish, at his own cost, suitable books, including indexes; to make all entries and records in a plain and legible manner; to keep the records in good order, and to copy verbatim, and within reasonable time, all instruments, in writing, pertaining to mining claims, filed in his office for record. Also, when called upon to do so, he shall go upon the ground, and survey any mining claim taken up, causing to be firmly established at each corner, at the cost of the claimant, conspicuous monuments, not less than three feet high, on which shall be legible [legibly] and durably inscribed the name of the claim and the date of the survey, signed by the District Recorder. He shall, also, at the cost of the claimant, cause to be firmly established, at the point on the claim where the principal part of the assessment work, or other work, has been done, or at some conspicuous point on the claim, a permanent and conspicuous monument, not less than three feet high, to which shall be securely fastened the name of the company and that of the claim; the number of feet therein, and the date of the survey, signed by the District Recorder; all of which shall be legibly and durably inscribed on wood or some other permanent substance; and he shall prepare and file for record in his office a notice of survey, which shall be substantially in the following form:

——— MINING DISTRICT, }
——— County, Nevada, ———, 18—. }

Notice is hereby given that the undersigned, constituting the ——— company, claim ——— feet in a mining claim, named ———, situated as follows: (Here describe the location by reference to the monuments and other objects in the vicinity, and otherwise, so that, by means of the description, it may be readily found.)

Surveyed (here give the date of the survey.)

(Here give the names of the locators, with the number of feet claimed by each.)

SEC. 15. Upon the request of any one, he shall give a certified copy of any instrument, or matter of record, on file or recorded in his office, if his fees and those of the County Recorder be paid or tendered for the same.

SEC. 16. On the third Saturday of August, November, February and May, of each year, the District Recorder shall file in the office of the County Recorder of the county in which his district, or the principal part thereof, is situated, all instruments recorded in the office of said District Recorder, and not previously filed in the office of the County Recorder; and the County Recorder shall, as soon as may be, duly record and index the same in books to be kept for that purpose, and shall then return said instruments to said District Recorder. In case any such instruments be lost, or destroyed, before they are recorded in the office of the County Recorder, copies of the same, duly certified by the District Recorder, shall be filed in their stead. For recording and indexing the County Recorder may charge and collect from said District Recorder the same fees that are allowed County Recorders by law, which amount shall be collected by the District Recorder from the party proposing to file any such instrument, before said District Recorder shall file the same. Nothing in this Act shall be so construed as to require the District Recorder to file in the County Recorder's office any district laws, or any instruments or records, obtained from any District Recorder elected under district mining laws, unless the fees, as prescribed in this Act for copying, certifying and filing in the County Recorder's office, shall have been paid, or tendered therefor.

SEC. 17. For the safe keeping and due payment of all moneys entrusted to him, the District Recorder shall be liable on his official bond. And if he shall use said moneys for his personal benefit, or shall, in any other manner, misappropriate the same, or shall otherwise willfully neglect or refuse to comply with the provisions of this Act, he shall be liable in damages to the party injured thereby, and, in the discretion of the Court, he shall forfeit his office and be forthwith removed therefrom; and shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine not exceeding five thousand dollars, or by imprisonment in the county jail for a period not exceeding one year, or by both such fine and imprisonment.

SEC. 18. The District Recorder shall, during all reasonable hours, keep his records open for inspection, and shall, within a reasonable time, record all papers left with him for record, and do all other things required of him by this Act.

SEC. 19. The District Recorder shall not be required to perform any service, for any person requesting his services, until his fees are paid, or tendered to him, if he demands them.

SEC. 20. The District Recorder shall note, on all papers filed in his office, the year, month, day, hour and minute when they were so filed; and all such papers, filed for record, shall be considered as recorded from that time. All papers filed in the office of the District Recorder shall be kept properly arranged, so that they can be readily found.

SEC. 21. All mining claims located and held, under and by virtue of district laws of the several mining districts in this State, previous to the second Saturday of July, 1866, may continue to be held in accordance with the provisions of said district laws, up to the first Saturday of August, 1866. But before said first Saturday of August, the boundaries of such claims shall be clearly defined, by firmly establishing at each corner of the claim a conspicuous monument, which shall not be less than three feet high, and which shall have legibly and durably inscribed on it the name of the claim, and the date of the survey or measurment of the claim. And at the point where the principal work has been done, or at some conspicuous point on the claim, a permanent and conspicuous monument, not less than three feet high, shall be firmly established, to which shall be securely fastened the name of the claim, the number of feet therein, and the date of the survey; all of which shall be legibly and durably inscribed on wood or some other permanent substance; and the owners of said claim shall, before said first Saturday of August, file for record, with the District Recorder of the district in which said claim is located, a description of the location of said claim, by means of which said claim may be readily found. In any case where the location is such as not to involve an area, but simply a ledge location, the monuments, as specified in section fourteen, for the corners of a claim, shall be established at the ends of a claim, on the line of the ledge, as located. No claim on which work has been done, to the amount of one thousand dollars or more, shall be subject to re-location on account of non-compliance with the provisions of this section, until sixty days after written notice of intention to re-locate the same has been served upon the agent or principal manager of said claim, setting forth that if, within sixty days from the time said agent or manager receives said notice, the provisions of this section be not complied with, said claim will be re-located by the party serving said notice. Such notice may be served personally, or it may be given by publishing the same for two consecutive weeks in any newspaper published in the county in which said claim is located; and if no newspaper be published therein, it may then be published in any newspaper published at the capital of the State. In case such notice be thus published in a newspaper, the relocation may be made at any time after the expiration of sixty days from the first publication of such notice; *provided*, that any mining claim on which the assessment dues, required by this Act, have not been paid, as provided in this Act, before the first Saturday of August, 1866, shall be subject to relocation. For the purposes of this Act a claim shall be considered as located in the county in which the principal part of the district in which it is located is situated.

SEC. 22. On and after the second Saturday of July, 1866, all locations of mining claims shall be made in the following manner: On a monument, not less than three feet high, firmly established in a conspicuous place on the claim, there shall be placed a plainly written notice, embracing a description of the ground claimed, the date of location, the name of the claim, the name of the company, and the names of the locators, with the number of feet claimed by each; and a copy of said notice, accompanied by a written request for a survey of said claim by the District Recorder, shall, within thirty days after the making of such location, be filed in the office of the District Recorder of the district in which said claim is located; and in case there be no legally authorized District Recorder in and for the district, or the claim be outside of the limits of an organized mining district, then, and in that case, said notice may be filed in the office of the County Recorder of the county in which said claim is located, and a written request for a survey by the County Surveyor shall be served upon the County Surveyor. Within a reasonable time thereafter, the County Surveyor, or his deputy, shall perform all the duties required of a District Recorder, by the provisions of this Act. He shall keep a record of all his transactions in such cases; and for such services he may charge and receive the same fees allowed by law for his services in like cases. Within thirty days after the making of such location, there shall be done on said claim, as assessment work, to hold the same up to, and including, the day preceding the first Saturday of the then following August, excavation involving the removal of fifty cubic feet of earth or loose material, or five cubic feet of solid rock, for each two hundred feet in the claim; and, as soon as may be thereafter, said District Recorder shall survey the same, and record the notice of survey, as provided in section fourteen of this Act. And said District Recorder shall file and record a certificate in regard to the assessment work, which shall be substantially in the following form:

—— DISTRICT, —— COUNTY, NEVADA. }
———, 18— . }

This is to certify that on the (name of claim) mining claim, governed by the —— Company, surveyed (date of survey), there has been done by, or on behalf of, said company, sufficient work to hold said claim up to the first Saturday of August next.

———,
District Recorder.

SEC. 23. Any person may locate mining claims in favor of others; but no person shall be entitled to hold, by location, more than two hundred feet of any one ledge except by virtue of discovery of the same, for which he shall be entitled to hold two hundred feet additional. In the case of locations made as extensions, the location of two hundred feet, by virtue of discovery, is allowed. No claim shall, in the aggregate, exceed in extent two thousand feet on any one ledge.

SEC. 24. Any location made on a ledge, by authority of this act, shall be deemed to include all the dips, spurs, angles and variations of said ledge. The locators of any ledge shall be entitled to hold one hundred feet on each side of the same, not interfering with the mining rights previously acquired by others; and all dips, spurs, angles, variations, veins, cross-ledges, strings and feeders, within such area of two hundred feet, by the extent of the claim, on the supposed line of the ledge, as located, shall be considered as claimed and held by said locators, and a part of said ledge; and no ledge, in any claim subsequently located shall be followed and worked within said area without the permission of the holders of said area. All measurements of boundaries shall be horizontal air lines. Nothing in this Act shall be so construed as, in any manner, to change the amount of ground that may be held in any mining claim located and held in accordance with district mining laws; but on and after the first Saturday of August, 1866, all such claims shall, in all other respects, be subject to the provisions of this Act. Locations may be made on blind ledges in the same manner as on cropping ledges, and any person, company or corporation finding a blind ledge, in any excavation made by him or them, shall, for ten days after finding the same, have the exclusive privilege of locating the same.

SEC. 25. No person shall become a locator in more than one claim on the same ledge, and any second location, made on the same ledge, by or in the name of a party already located on such ledge, shall be void.

SEC. 26. The holders of any claim shall have the right to use so much of the land in the vicinity thereof as may be requisite for dumps, and for the erection of the necessary buildings, machinery and other works connected with said claim and for the convenient development and working of the same. And in the development and working of said claim, they may sink shafts and inclines, and run drifts, tunnels and cuts on any lands in said vicinity; but the prior owners of such lands shall be entitled to reasonable compensation for all damages sustained by reason of such dumps, the erection of such works, or the conducting of such operations. If the prior owners of any such lands have duly claimed the same as mining ground, they shall be entitled to all the ores taken out in the course of such operations, and they shall not be interfered with in the conducting of their own mining operations on their own claims. The amount of such compensation shall be determined by a majority of three commissioners—one of whom shall be appointed by such prior owners, one by the party engaged in such development or working, and one by the two thus selected. The amount so fixed shall, within fifteen days after the fixing of the same, be paid to said prior owners, or deposited in the county treasury, subject to the order of said prior owners. Said commissioners shall, before entering upon their duties, take and subscribe to an oath, before some person duly authorized to administer the same, to make a true appraisement thereof, according to the best of their knowledge and belief.

SEC 27. No person shall have the right to impede or inconvenience travel by obstructing or rendering unsafe any public street or road; nor shall any one change the direction of any public road without the sanction of the proper authorities.

SEC. 28. For the purposes of this Act, any stakes set, any works erected, or any tree or other object selected and conspicuously marked to designate the boundaries of a mining claim, shall be deemed a monument established for such purpose, if it be conspicuous, and three feet in hight.

SEC. 29. Any person who, willfully, maliciously or wantonly, or with intent to fraudulently change, injure or destroy a boundary, shall remove, injure or destroy any monument, or any mark thereon, established to designate the boundary of any mining claim, shall be deemed guilty of a misdemeanor, and on conviction, shall be punished by a fine not exceeding one thousand dollars, or by imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment.

SEC. 30. For the purposes of this Act, the term "foot," when used without qualification in relation to mining ground, is hereby declared to mean twelve lineal inches, horizontal air line measurement, on the line of the ledge, as located; the term "assessment work" is hereby declared to mean the work done, partly in order to hold a claim, and involving the excavation of fifty cubic feet of earth or loose matter, or five cubic feet of solid rock, for each two hundred feet in the claim; the terms "assessment dues" is hereby declared to mean two cents for each foot in a claim, to be paid for the purpose of holding the same one assessment year; and the term "assessment year" is hereby declared to mean the period extending from, and including, the first Saturday of August of one year, to, and including, the day immediately preceding the first Saturday of August of the following year. The doing of assessment work, or the payment of assessment dues, shall be regarded as evidence of intention to hold the claim on which, or with reference to which, the same was done or paid, for the period for which the same was done or paid. The payment of assessment dues shall be in lieu of the "assessment work" heretofore usually required as an evidence of intention to hold a mining claim for a specified period; and such payment shall not be required in any case where the holders of a mining claim are in good faith, and to the extent specified in section thirty-two of this Act, engaged in developing or working the same.

SEC. 31. On the first Saturday of August, 1866, (at which time the first assessment year shall begin,) this Act shall supercede all district mining laws, and thereafter said laws shall be considered as repealed; *provided*, any and all rights heretofore acquired under and by virtue of such district mining laws, shall be determined in accordance with said mining laws, existing at the time when said rights were acquired. During the period extending from, and including, the first day of May, 1866, to, and including, the day immediately preceding the first Saturday of the following August, no claim shall become subject to re-location by reason of the non-performance of assessment work. Locations may be made under this Act at any time on and after the second Saturday of July, 1866, (at which time the District Recorders elected under this Act shall, if qualified, enter upon the discharge of their duties), and on and after said second Saturday of July, no locations shall be made under district mining laws.

SEC. 32. The doing of assessment work, or the payment of assessment dues, shall not be required in order to hold a claim during any assessment year, if, during the year next preceding such assessment year, there has been done on said claim, by or on behalf of the claimants thereof, an amount of work costing, at a fair valuation, not less than fifty cents for each foot in said claim; but in all other cases assessment work shall be done, or assessment dues shall be paid as provided in this Act. Assessment dues shall be paid for every assessment year by the parties holding the claim, to the District Recorder, elected under this Act, before the first Saturday of August, commencing the assessment year for which they are paid, except as otherwise provided in this section.

SEC. 33. Except as otherwise provided in section thirty-two, every mining claim located and held under district mining laws, on which, before the first day of May, 1866, there has been work done involving the excavation of fifty cubic feet of earth, or loose matter, or five cubic feet of solid rock, for each two hundred feet in such claim, shall be subject to assessment dues. On every mining claim located and held under district mining laws, on which such work has not been done before the first day of May, 1866, assessment work shall be done on or before the day immediately preceding the first Saturday of August, 1866. The doing of such assessment work, or the payment of such assessment dues, shall enable the owners of said claim to hold the same for the next ensuing assessment year, commencing on the first Saturday of August, 1866.

SEC. 34. The assessment work done within the thirty days after the location of a claim, under this Act, as provided in section twenty-two, shall hold the same only up to the beginning of the assessment year following the date of said location, and for such next ensuing assessment year, and for such next ensuing assessment year, and for every year thereafter (except as provided in section thirty-two of this Act), such claim shall be subject to assessment dues.

SEC. 35. For any assessment dues paid to the District Recorder, he shall give a receipt, which shall be filed for record, in the office of the District Recorder, before the expiration of the time for the payment of such dues. Said receipt shall be substantially in the following form:

$——— Received——— District, ———— county, Nevada, ———, 18—, from ———— (amount) in full, as assessment dues on ———— mining claim, for the assessment year commencing on the first Saturday of August, 18—.

———,
District Recorder.

SEC. 36. The doing of any assessment work, or the payment of any assessment dues, by any one or more of the owners in any mining claim, shall not be held to extend to or protect any interest or interests in said claim, beyond those specifically covered by the doing of such work or the payment of such dues; and any portion or portions, interest or interests, in any claim or claims, on which the requisite work has not been specifically done, or the requisite dues have not been paid, shall be forfeited and subject to re-location, the same as if no work had been done, or no dues been paid, on any portion of said claim; but a receipt given to the company shall be sufficient to cover all ground claimed by said company, without specifying the separate owners therein.

SEC. 37. All papers relating to any claim in any mining district in which there is no District Recorder, or which is not within the limits of any mining district, may be filed in the office of the County Recorder of the county in which said claim is located; and in any such case, the surveys may be made by the County Surveyor of said county, or his deputy; and the assessment dues may be paid to the County Treasurer of said county, who shall give a receipt therefor, which shall be substantially in the form prescribed in section thirty-five. Before the expiration of the time for the payment of said assessment dues, said receipt shall be filed for record in the office of the County Recorder of said county.

SEC. 38. If, within thirty days immediately preceding the time that it becomes necessary to do the assessment, or other work, on any mining claim, it is generaly believed that the section of country in the vicinity of said claim, or the route which it is necessary to travel in going to said claim, is infested by hostile Indians, the doing of said work may be postponed for six months from said time; but one of the owners of said claim, or his agent, shall, within said thirty days, before some officer competent to administer an oath, take and subscribe an oath, which shall be substantially in the following form:

"I, A B, do solemnly swear (or affirm) that I am one of the claimants (or the agent thereof, as the

ease may be,) of (here give the name of the claim, and describe its location, so that it may be conveniently found,) and that I have good and sufficient reason to believe, and do believe, that the doing of (here name the assessment work or other work to be done,) would be attended by serious danger, by reason of hostile Indians in the vicinity of said claim, or on the route over which it is necessary to travel in going thereto. (If an oath,) So help me God. (If an affirmation,) Under the pains and penalties of perjury."

Said oath shall, before the time expires for the doing of such work, be filed for record in the office of the District Recorder.

SEC. 39. In case of the failure of a claimant to do, within the time specified, anything on, or with reference to a mining claim, which by this Act is required to be done within a specified time, said thing may be done thereafter; and if such claim has not been re-located after the expiration of said time, and before said thing has been done, it shall have the same force and effect as if done within said time.

SEC. 40. The claimants of any mining claim who fail to comply with any of the provisions of this Act, shall forfeit all right thereto, and shall be deemed to have intentionally abandoned the same, and thereafter such claim shall be subject to re-location.

SEC. 41. All instruments filed in the office of the District Recorder, and all records made in said office, in pursuance of this Act, and all copies of such instruments and records, duly certified by the District Recorder to be full, true and correct copies or transcripts thereof, shall be received as evidence in all courts, and in all actions and proceedings.

SEC. 42. Any person who shall willfully change, deface or obliterate any instrument filed in the office of a District Recorder, or any record made in the books of such office, or insert in such instrument or record any new matter, or who shall steal, or willfully mutilate or destroy any instrument filed in the office of a District Recorder, or any part thereof, shall be guilty of a misdemeanor, and on conviction, shall be punished by fine, not exceeding five thousand dollars, or imprisonment in the county jail for a period not exceeding one year, or by both such fine and imprisonment; and shall be liable, to any person injured thereby, for double the amount in damages.

SEC. 43. The fees of the District Recorder shall be as follows: For filing any paper, twenty-five cents. For each one hundred feet of mining ground measured, twenty cents. For measuring the assessment work on the mining claim of any company, giving a certificate in regard thereto, and recording and indexing the same, two dollars. For each certificate, twenty-five cents. For the recording and indexing of any instrument containing less than two folios, of one hundred words each, one dollar; and for each additional folio, twenty-five cents. For each certified copy of any instrument or record containing less than two folios, one dollar, and for each additional folio, twenty-five cents, including the certificate.

SEC. 44. All moneys paid to the District Recorder, as assessment dues, shall be paid by him to the County Treasurer on the third Saturday of August, November, February, and May, of each year. The County Treasurer shall give a receipt for said moneys, which shall be filed and recorded in the office of the District Recorder. The County Treasurer shall pay said moneys to the State Treasurer at the same time and in the same manner that he is required to pay taxes to the State Treasurer; and said moneys shall be set apart as a mining school fund.

SEC. 45 The extraction of gold, or other metals, from alluvial or diluvial deposits, generally called placer mining, shall be subject to such regulations as the miners in the several mining districts shall adopt.

SEC. 46. In the conveyance of any interest in any mining claim, the description shall be deemed sufficient if it embraces the number of feet conveyed, the name of the claim, and the name of the company by which it is designated, and the district and county in which the claim is situated.

SEC. 47. The provisions of this Act shall be applicable to all the counties of this State, except the county of Storey, in which county none of the provisions of this Act shall be deemed to apply or have force or effect.

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 00 @ 6 50
Do Superfine	5 50 @ 6 00
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	1 65 @ 1 75
Oats, choice, ₱ 100 lb	2 00 @ 2 10
Barley, ₱ 100 lb	75 @ 90
Beans, ₱ 100 lb	4 50 @ 5 00
Potatoes, ₱ 100 lb	1 05 @ 1 15
Hay, ₱ ton	10 00 @15 00
Live Oak Wood, ₱ cord	8 00 @10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½@ 15
Sheep, on foot,	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ 9
Hogs, dressed, ₱ lb	12 @ 13
Groceries, Etc.	
Sugar, crushed, ₱ lb	— @ 16½
Do China	10 @ 12½
Coffee, Costa Rica, ₱ lb	—@ 24
Do Rio	23½@ 24
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	8 @ 10
China do	7 @ 8
Coal Oil, ₱ gal	75 @ 80
Candles, ₱ lb	22 @ 24
Ranch Butter, ₱ lb	37½@ 40
Isthmus do	35 @ 43
Cheese, California, ₱ lb	16 @ 18
Eggs, ₱ doz	40 @ —
Lard, ₱ lb	20 @ 21
Ham and Bacon, ₱ lb	— @ 22½
Shoulders	20 @ 22

ELECTROTYPE CUTS, ENGRAVINGS, ETC.—Our Job Printing Office is abundantly supplied with elegant engravings, ornaments, and other embellishments to suit the various branches of industry in this State.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE
Arizona Consolidated		Annual meeting	May 7*
Assurance, Monterey co, Cal, 25c		May 11	May 29*
Alpha, Gold Hill, $50		May 25	June 25
Adams' Petroleum, $5		April 30	May 19
Batopilas, Chihuahua, Mex., 25c		May 10	May 28*
Belcher, $60		April 30	May 30
Belcher, Baldwin & Abernathie Co, $20		April 30	May 30
Bullion			$10 00
Barreteros, Sonalos, Mex., $5		May 10	May 28
Bunker Hill, El Dorado co., $1		May 23	June 11
Capitola, Santa Clara co., Cal., 10c		June 12	July 2*
Cosala, $1		April 26	May 12*
Chipiencа, Sonora, Mex., $5		April 28	May 12
Confidence, Storey co., Nev., $25		May 4	May 18
Capitola		Meeting	April 30
Dios Padre, Alamos, Mex., $3		June 5	June 23*
Daney, 50c		May 12	June 9
Diamond		Annual meeting	May 5
Evoca Consolidated Copper		Annual meeting	May 24*
Evoca Cons. Cop., Del Norte co., Cal., 25c		June 6	July 1*
Exchequer, $2		April 30	May 16
Geo. Washington, Alpine co., Cal., $1.00		June 9	June 26*
Great Basin, Humboldt co., Nev., 9c		June 12	July 2*
Green, Storey co., Nev		Annual Meeting	June 6*
Harker, Lander co., Nev., 50c		April 14	May 1*
Hanscom, Copper, Del Norte co., 15c		May 1	May 21*
I. X. L., $1.50		May 17	June 7*
Kentucky, $1		May 8	May 30*
Keokuk, Contra Costa co., Cal., 10c		May 18	June 4*
Lady Franklin, Alpine co., Cal., 25c		May 7	June 5*
Lady Bell, Low Divide, Cal		June 9	June 28*
La Victoire, $1		May 4	May 21
Moss Ledge co, $25		May 1	May 16
Maria, Chihuahua, Mex., $2		May 7	May 28
Nuestra Sra de Guadelupe, Durango, Mex., $1		June 2	June 20*
North Star, Lander co., Nev, $25		May 14	June 6*
Open Sesame, 50		April 20	May 2
Providence, Nevada co., Cal., $1		Mar 17	Mar 31*
Planet, Arizona		Annual meeting	May 7
Refugio, Chihuahua, Mex., $2½		May 21	June 6*
Salamander, Calaveras co., Cal.		Annual Meeting,	May 21*
Silver Queen, Lander co., Nev., $1		June 23	July 23*
Simpson & Bossell, Carson Valley, $1		May 25	June 14*
Sierra Valley, Plumas co., Cal., $1		May 31	June 18*
San Francisco, Moss Ledge, $25		May 1	May 16
Sweet Vengeance, $1		May 11	May 30
Siskiyou, $1.50		April 23	May 25
Sophia, Tuolumne county, $7		April 26	May 11
Salambo Copper, $1		May 8	May 29
Sierra Nevada, Storey co, Nev., $1		May 7	June 6
United States, Storey co., Nev., 50c		May 26	June 13*

*Those marked with an asterisk (*) are advertised in this Journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 81	$ 82
Gov. Legal Tender Notes	79½	80
State Bonds, 7 ₱ cent	84	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	71	..
San Francisco Bonds, 1858, 6 ₱ cent	69	..
Sacramento City Bonds, 6 ₱ cent	20	30
Sacramento County Bonds, 6 ₱ cent	50	60
Marysville Bonds, 10 ₱ cent	75	100
Stockton Bonds, 10 ₱ cent	77½	90
Yuba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	75	78
California Navigation Co	55	57
State Telegraph Stock	32	35
San Francisco Gas Co	103	104
Sacramento Gas Co	..	75
Spring Valley Water Co	68	70
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	60	..
Central Railroad Co	70	..
North Beach and Mission	60½	61
MINING STOCKS.		
Alpha	325	340
Bullion, C. H	77	80
Ophir	$ 520	$ 525
Gould & Curry	850	860
Empire M. & M. Co	180	185
Savage	975	980
Chollar-Potosi	314	315
Hale & Norcross	900	950
White & Murphy	..	..
Sierra Nevada	4	5
Yellow Jacket	690	695
Overman	79	80
Crown Point	1250	1300
Antelope	..	..
Emerald	1	5
Real del Monte	..	..
Buckeye	..	..
Dick Sides	..	..
Imperial	139	140
Ætna	..	..
Cedar Hill Tunnel	..	..
Wide West	..	..
Sierra Buttes Quartz Co	..	..
Central	..	..
California	..	..

SUBSCRIBE FOR IT.—The large, illustrated sixty-four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45@ 60
do pickled ₱ lb	38@ 40
do Oregon	35@ —
do New York, ₱ lb	50@ —
Cheese, ₱ lb	25@ —
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	—@ 60
Lard, ₱ lb	25@ —
Hams and Bacon, ₱ lb	24@ 26
Cranberries, ₱ gal	75@ 1 00
Potatoes, sweet, ₱ lb	—@ —
do Irish, ₱ lb	1@ 1½
Tomatoes, ₱ lb	@ —
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	3@ 8
Pears, table ₱ lb	8@ 25
Plums, dried, ₱ lb	20@ 22
Peaches, dried, ₱ lb	16@ —
Oranges, ₱ doz	50@ —
Lemons, ₱ doz	75@ —
Chickens, apiece	87@ 1 12
Soap—Pale & C. O	10@ 12
Castile	14@ 15

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

SAN FRANCISCO, March 17, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@ 1¾c ₱ lb; Plate 1¾c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	55 @60
American Pig ₱ ton	50 @55
Refined Bar, bad assortment, ₱ lb	3 @—
Refined Bar, good assortment, ₱ lb	3½@—
Boiler No. 1 to 4	4 @5
Plate No. 5 to 9	4½@ 6
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—

COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb.

Sheathing ₱ lb	34 @36
Sheathing, Old	20 @30
Sheathing, Yellow	30 @32
Sheathing, Old Yellow	12 @13
Bolts	13 @16
Composition Nails	30 @32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	16 @18
Plates, I C Charcoal	14 @15
Roofing Plates	12 @13
Banca Tin Slabs, ₱ lb	30 @ 5
STEEL.—English Cast Steel, ₱ lb	12½@16
QUICK-SILVER.—Per lb	— @65
For export	55 @—
ZINC.—Sheets ₱ lb	9½@10
LEAD.—Pig ₱ lb	8 @—
Sheet	10 @12
Pipe	10 @12
Bar	10 @11
BORAX—California, ₱ lb	20 @25

MUSIC PRINTING,
—AT THE—
MINING & SCIENTIFIC PRESS
Book and Job Printing Office.

We have a large fount of Music Type (the only one on the Pacific Coast), and are prepared to print Sheet Music or Music Books on favorable terms. DEWEY & CO.,
Corner Clay and Sansome Streets.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLature of the State of California, entitled "An Act concerning Corporations," passed April 22, 1859, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The number of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire	$12,973,949
Marine	451,408

This Company commenced underwriting Marino Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Anson G. Sales,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Haussenann,	John O. Earl,
C. Meyer,	L. B. Knechley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alphens Hull,	William Scholle,	B. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis.
John Wightman,	Oliver Eldridge,	F. L. Weaver,
L. Sachs.	A. B. Forbes,	David Stern.
Frederick Billings, J. G. Kellogg,		

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

Important to Californians.—Many inventors have ately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. THE MINING AND SCIENTIFIC PRESS PATENT AGENCY has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

CALIFORNIA
BUILDING AND LOAN SOCIETY

Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING AND LOAN SOCIETY, announce to the public the removal of their business to their

NEW BANKING HOUSE,
California Street, one Door from Sansome.

LOANS.

The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
Second—The Erection of Houses.
Third—The Erection of Manufactories.
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

MONTHLY DEPOSITS.

ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

CURRENT ACCOUNTS.

HALF PER CENT PER MONTH will be allowed on the daily balances to credit of Current Banking Accounts—the same to be ascertained and credited monthly.

REMITTANCES FROM THE COUNTRY
PROMPTLY ACKNOWLEDGED.

INTEREST on all sums commences from the day of deposit.

DEPOSITS of any amount received, from FIVE DOLLARS upwards.

OFFICE HOURS—9 1-2 A. M. to 3 1-2 P. M. daily.
SATURDAY EVENINGS from 6 1-2 to 9 o'clock.

THOMAS MOONEY, President.
W. G. WEIR,
SAMUEL CRIM,
ROBERT LEWELLYN,
JOHN DUNN,
C. A. JANKE,
A. ROSENFIELD,
J. W. McCORMICK.
I6v12-3m L. R. TOWNSEND, Secretary.

LOW PRICES
—IN—
GENTS' FURNISHING GOODS,
—AT—
WARD'S SHIRT STORE,
NO. 323 MONTGOMERY STREET,
—AND
Corner of Market and Third Streets.

PRINTED DIRECTIONS
For self-measurement for Shirts, and
PRICE LISTS OF GOODS, SENT FREE BY MAIL.
I6v12-3m16p

CAUTION.

TO WHOM IT MAY CONCERN:—THE PUBLIC ARE hereby notified that a patent was allowed, December 27th, 1864, and issued June 27th, 1865, to PROFESSOR HENRY WURTZ, for the use of sodium and amalgams thereof with quicksilver, in the extraction of precious metals from their ores. All persons using said amalgams, or purchasing or selling sodium or said amalgams for use in the treatment of gold or silver ores, are hereby cautioned that they will be prosecuted to the full extent of the law.

The patents of Professor Wurtz have been assigned to the WURTZ Amalgamation Company of New York city. It is the intention of the said company soon to appoint agents for California and the other mining States and Territories. In the meantime, applications for licenses to use sodium and its amalgams, may be addressed to the company, at their office, No. 57 Broadway, New York.

C. ELTON BUCK, Secretary.
March 9th, 1866. 14v12-6t

SMOKE THE
PATENT
RUSSIAN
CIGARETTES.
manufactured by
GIBB & STAHL
120 Kearny Street,
San Francisco
16v12-3m For sale in all the Cigar Stores.

INTERNATIONAL HOTEL,
K Street, between Third and Fourth,
SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m B. BISENMENGER.

BRANNAN HOUSE,
(Formerly Vernon,)
J street, between Front and Second streets,
SACRAMENTO.

FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m MRS. J. DUNN, Proprietress.

WHAT CHEER HOUSE,
SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m A. J. SENATZ, Proprietor.

Furnished Room to Let,

ON MASON, BETWEEN CLAY AND Washington streets, overlooking the Bay. Inquire at this Office. 12-v12

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD

Friday, April 27.

AFTERNOON SESSION.

120 shs Ophir at 725@710 per foot.
164 shs Ophir at 720@715 per foot, b 3.
12 shs Ophir at 715 per foot, s 5.
36 shs Ophir at 710 per foot, s 20.
12 shs Ophir at 7 3 per foot, s 3.
48 shs Ophir at 710 per foot, b 3.
2 shs Hale & Norcross at 950 per foot.
2 shs Hale & Norcross at 950 per foot, s 30.
3 shs Savage at 1000@1040 per foot.
3 shs Chollar-Potosi at 310 per foot, s 30.
3 shs Chollar-Potosi at 315 per foot, b 30.
2 shs Belcher at 10 per foot, s 30.
1 sh Belcher at 312½ per foot
4 shs Yellow Jacket at 810@835 per ft.
25 shs Bullion at 75@70 per share.
4 shs Empire M & M Co. at 175 per sh.
16 shs Imperial at 135@134½ per share, b 3.
20 shs Imperial at 135 per share, s 30.
20 shs Imperial at 136@134 per share.
20 shs Overman at 78 per ft, b 3.
5 sds Overman at 81 per foot, b 30.
Amount of sales.....$ 43,634 00

Saturday, April 28.

36 shs Ophir at 710@700 per foot, b 10.
72 shs Ophir at 705@690 per foot.
95 shs Ophir at 7 5@695 per foot, b 3.
84 shs Ophir at 705@695 per foot, b 5.
56 shs Ophir at 6.5@690 per foot, s 5.
72 shs Ophir at 705@710 per foot, b 30.
16 shs Chollar-Potosi at 312@312½ pr ft.
5 shs Chollar-Potosi at 312½ per foot, s 10.
3 shs Chollar Potosi at 312½ per foot, s 3.
5 shs Chollar-Potosi at 320 per foot, b 30.
16 shs Yellow Jacket at 810@835 per ft.
8 shs Yellow Jacket at 8:0@835 per ft, s 3.
1 sh Yellow Jacket at 820 per foot, b 10.
8 shs Yellow Jacket at 815@830 per ft, s 30.
5 shs Belcher at 310@305 per foot.
1 sh Belcher at 310 per foot, b 30
30 shs Overman at 81@80 per foot, b 30.
36 shs Overman at 80 per foot, b 15.
10 shs Overman at 78@78½ per ft.
15 shs Overman at $80, b 5.
15 shs Overman at $78, s 3.
40 shs Sierra Nevada at 6¼ per share.
13 shs Exchequer at 11 per share.
16 shs Bullion at 77½ per share, s 3.
48 shs Bullion at 83@90 per sharo.
30 shs Lady Bryan at 2¼ per share.
61 shs Confidence at 27@24 per share.
15 shs Confidence at 25 per share, b 3.
45 shs Imperial at 135@133 per share.
5 shs Imperial at 152¼ per share, s 3.
25 shs Imperial at 133½@135 per sh, b 3.
Amount of sales.....$ 99,105 00

Monday, April 30.

10 shs Yellow Jacket at 825@830 per ft.
1 sh Yellow Jacket at 825 per foot, s 30.
1 sh Yellow Jacket at 840 per foot, b 15.
2 shs Yellow Jacket at 835 per foot, b 10.
1 sh Yellow Jacket at 830 per foot, s 5.
16 shs Hale & Norcross at 945@940 per ft.
5 shs Hale & Norcross at 970 per foot, b 30.
29 shs Chollar-Potosi at 312½@314 per foot.
5 shs Chollar-Potosi at 313 per foot, s 3.
9 shs Belcher at 350@345 per foot
1 sh Belcher at 345 per foot, s 3.
1 sh Belcher at 345 per foot, s 10.
4 shs Belcher at 355 per foot, b 30.
96 shs Ophir at 700@695 per foot, b 30.
340 shs Ophir at 685@675 per foot.
48 shs Ophir at 685@675 per foot, s 3.
8 shs Crown Point at 1250 per foot.
1 sh Empire M & M Co. at 180 per sh, s 6.
2 shs Empire M & M Co. at 180@185 pr sh, s
30 shs Overman at 78@86 per foot, s 30
116 shs Overman at 82@86½ per foot.
50 shs Overman at 85@90 per foot, b 30.
50 shs Overman at 85 per foot, b 5.
5 shs Overman at 88 per ft, b 15.
5 shs Sierra Nevada at 6¼ per share.
10 shs Sierra Nevada at 6 per share, b 3.
5 shs Confidence at 25 per share.
14 shs Bullion at 85 per share.
5 shs Bullion at 85 per share, s 3.
5 shs Imperial at 136 per share.

AFTERNOON SESSION.

68 shs Ophir at 660@637½ per foot.
168 shs Ophir at 650@640 per foot, b 3.
18 shs Ophir at 670@665 per foot, b 30.
72 shs Ophir at 615@635 per foot, s 5.
1 sh Belcher at 345 per foot
5 shs Yellow Jacket at 825@320 per ft, s 3.
7 shs Yellow Jacket at 825 per foot.
3 shs Yellow Jacket at 830@825 per ft, b 5.
2 shs Yellow Jacket at 830 per foot, b 10.
11 shs Chollar-Potosi at 311½ per foot.
20 shs Daney at 10 per foot, s 30.
1 sh Empire M & M Co. at 190 per sh, s 10.
25 shs Confidence at 24@23 per share.
20 shs Overman at 81 per ft.
35 shs Overman at 84 per fool, b 3.
21 shs Imperial at 135@134 per sharo.
17 shs Imperial at 134@130 per sh, s 30.
45 shs Sierra Nevada at 5¼@5½ per share.
5 shs Bullion at 80 per share, s 5.
10 shs S F Gas Co at 105 per cent
Amount of sales.....$158,752 00

Tuesday, May 1.

264 shs Ophir at 620@600 per foot.
108 shs Ophir at 620@615 per foot, b 3.
72 shs Ophir at 6.5@610 per foot, b 30.
36 shs Ophir at 602@605 per foot, s 3.
21 shs Ophir at 600@616 per foot, s 10.
50 shs Daney at 9½ per foot.
8 shs Yellow Jacket at 810@815 per foot.
1 sh Yellow Jacket at 812½ per foot, s 10.
2 shs Yellow Jacket at 815 per foot, s 3.
4 shs Savage at 1000@1005 per foot, s 3.
1 sh Savage at 1000 per foot.
23 shs Chollar-Potosi at 311 per foot, s 30.
2 shs Chollar-Potosi at 310 per foot.
2 shs Belcher at 335@332½ per foot.
4 shs Gould & Curry at 850 per foot.
35 shs Imperial at 133@134 per share.
50 shs Exchequer 10 per share.
25 shs Overman at 82 per ft, s 30.
25 shs Overman at 83@84 per foot, b 3.
35 shs Overman at 82@80 per ft.
40 shs Overman at 81@79 per foot, s 3.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, May 5, 1866.

Capital continues abundant for all the legitimate requirements of the season, and the Bank rates show no variation—1@1¼ ₱ cent. ₱ month being the prevailing figures. Out-door negotiations rule at 1½@2 ₱ cent. where parties are less favorably known, and consequently more helpless in the hands of the money-lender. Loans upon Mining Stocks have been made with more hesitancy this week, and considerable distrust is evinced by capitalists as to the future of some claims. The effect of this upon the Stock Market (combined with other causes), has been depressing but healthful for the mining interest by checking purely speculative operations and directing attention more closely to the actual condition and merits of the different companies.

Receipts of treasure from domestic sources are fully up to the usual average, and since Saturday last, have exceeded $950,000. The product of Nevada amounted to $1,100,000 last month, and the aggregate recorded receipts of bullion in this city were about $4,000,000, during the same period. Bullion has met with no especial inquiry this week, and rates are substantially unchanged. Gold bars 840@850, silver, ½@1 ₱ cent. premium.

The Mining Share Market has been characterized by considerable activity, but, with scarce an exception, nearly every stock on the list still further declined early in the week. The short interest inaugurated last week with so much vigor has continued to attract attention, and sellers' option contracts are yet made with some freedom. The prospective demand, however, for stock for future delivery growing out of these sales, together with the favorable tenor of advices from certain claims, have imparted rather more strength to the market since Thursday, and it is thought that a rally will now take place.

City Shares are growing in favor, and for the most part are strongly held at enhanced rates. San Francisco Gas was sold at $105, and is now held at $110. California Steam Navigation rose to 59½ ₱ cent., and Spring Valley Water to $67 ₱ share. The latter company pay a dividend on the 10th inst. North Beach and Mission Railroad is held at $61, and Omnibus was dealt in at $60.

Crown Point is dull and inactive; small sales were made at $1,250, closing at about $1,250 bid. During the week ending 28th ult., 746 tons of ore were extracted. No material change has taken place in any portion of this mine. The south incline is down some ten feet in a "fair body of good ore," and the south drift is again underway. Receipts of bullion for the month of April exceeded $100,000, and a dividend of $80 ₱ foot will probably be declared on the 10th inst. The suit of C. L. Low *vs.* this Company, involving a title to fifty-six feet of stock, is now on trial in Virginia City before his Honor Judge Rising.

Savage was sold at $1,000@975, and is now held at $985. In the week closing on Saturday last, 466 tons of ore were taken from the mine, as follows: 22 tons first-class, 302 tons second-class, and 132 tons good quality of third-class. The best portion of the body of ore in the 6th level has now been reached, showing, it is said, a width of 20 feet. In going north on this ore-seam the quality improves, but with less width, and a few feet south of the prospecting drift the indications are also thought to be flattering. The upper works are still producing a little ore, and 25 tons first-class worked recently from the Potosi chimney yielded $390 ₱ ton. The ore from the latter is found 41 feet above the fourth station, and at a small distance east of the old Savage works at that level and close to the Gould & Curry line. The old shaft is down some 25 feet below the 6th level, and good progress is being made in sinking the two southern compartments of the Curtis shaft.

Hale & Norcross receded from $940 cash, and $970, buyer 30, to $910, and then sold at $915. There is no new feature in this mine so far as we are informed. The incline from the seventh level is down 85 feet, and at 15 feet greater depth a drift will be started for a new station—765 feet (vertically) from the surface. A dividend of $50 ₱ foot will be declared on the 10th inst.

Gould & Curry fell from $850 to 725, and then rallied to $850 bid. In the north branch drift, second station, a considerable body of water was met with on the 29th ult., but is now said to be subsiding. The south end of the upper works is said to be looking well and a fair show of ore will, it is thought, extend to the surface. Receipts of bullion last month were $143,000, and the ore crushed, chiefly at the Company's mill, averaged about $46 ₱ ton. There is a prospect of a dividend of $50 ₱ foot some time this month.

Yellow Jacket has been active at fluctuating rates, and some 200 feet were dealt in, receding from $835 to $665, rallying to $725, and selling yesterday at $685@705. During the two weeks ending April 23d, 1,768 tons of ore were extracted, but no returns have been made thus far of the average yield ₱ ton. The winze sunk from third level, north mine, is now down some 45 feet and is said to be in good ore, and in the lower level of the south mine the indications are thought to favor the existence of a large body of ore.

Ophir has been quite a feature of the market this week, and nearly 500 feet were sold, steadily declining from $710 to $500, rallying to $580, dropping to $550, and changing hands yesterday at $521@505. In running north from the ninth gallery the first, second and third floors have shown some deterioration this week, but the ore in the third extends further north than the first floor, and the same theory will doubtless hold good in stoping and drifting upon the upper floors. There is no material change in either the east or the west drifts from that gallery, and little or no difficulty is apprehended with regard to water. In the eighth the south drift is progressing slowly. The sixth gallery is said to look well, and a reliable body of ore will, it is thought, be found at that level. In the fifth the drifts have met with quartz, but no ore as yet. Receipts of bullion last month amounted, in the aggregate, to $99,200.

Chollar Potosi steadily declined from $315 to $295, rose on Thursday to $330, buyer 20, and sold yesterday at $317@313. Recent advices would seem to indicate no important change in any of the stations. During the week ending 27th ult., 773 tons of ore were sent to custom mills, and 133 tons were sold at $5 ₱ ton. The drift from the first station—new shaft—is in some 300 feet and it is thought that the lode will soon be reached.

Belcher is in rather better favor, advancing from $305 to $355, and then selling at $340@315. Empire Mill has also improved, advancing from $175 to $190, and closing at about $185.

Imperial fell from $135 to $127, rose to $142, and sold yesterday at $139@140. The total yield of bullion for the month of April, was $90,200, and a very considerable surplus is now at the credit of the company. The Rock Point Mill made full time last month, and the Gold Hill Mill ran from the 1st to the 25th ult. The drift east from the bottom of old shaft is in about 135 feet, and the new shaft has attained a depth of 350 feet.

Overman was dealt in to the extent of 1,020 shares, within a range of 86½@72, closing at $75. Bullion rose from $78 to $90, fell to $80, and closing at $80. Confidence declined from $27 to $15, and sold yesterday at $15. Sierra Nevada fell from $6¼ to $3½, and closes at $4¾.

The total recorded sales of Stocks since Saturday last inclusive, amounted to $786,011.

5 shs Overman at 84 per sh, b 30.
10 shs Sierra Nevada at 5 per share, b 5.
10 shs Sierra Nevada at 0 per share, b 10.
10 shs Sierra Nevada at 5 per share, b 20.
10 shs Sierra Nevada at 4 per share..
10 shs Sierra Nevada at 5 per share, b 30.
10 shs Bullion at 82½@85 per share.
10 shs Omnibus R R at 60 per share.

AFTERNOON SESSION.

12 shs Ophir at 605 per foot, b 5.
12 shs Ophir at 600 per foot.
12 shs Ophir at 595 per foot.
36 shs Ophir at 550 per foot.
12 shs Ophir at 600 per foot, b 6.
12 shs Ophir at 580 per foot, b 3.
12 shs Ophir at 580 per foot, s 3.
84 shs Ophir at 575 per foot.
108 shs Ophir at 580 per foot.
36 shs Ophir at 600 per foot, b 30.
24 shs Ophir at 585 per foot, b 3.
22 shs Ophir at 590 per foot, b 10.
12 shs Ophir at 590 per foot, b 15.
12 shs Ophir at 605 per foot. b 3.
12 shs Ophir at 580 per foot, s 5.
12 shs Ophir at 582½ per foot.
1 sh Yellow Jacket at 800 per foot.
1 sh Yellow Jacket at 780 per ft
3 shs Yellow Jacket at 775 per foot, b 3.
1 sh Yellow Jacket at 770 per foot, s 10.
1 sh Yellow Jacket at 775 per foot.
1 sh Yellow Jacket at 770 per foot.
2 shs Yellow Jacket at 765 per foot, b 3.
2 sh Yellow Jacket at 760 per foot, s 10.
1 sh Yellow Jacket at 760 per foot.
1 sh Yellow Jacket at 760 per foot, b 5.
4 shs Yellow Jacket at 765 per foot, s 10.
1 sh Yellow Jacket at 760 per foot, b 10.
1 sh Yellow Jacket at 752½ per foot.
3 shs Yellow Jacket at 750 per foot
1 sh Chollar-Potosi at 307½ per foot.
1 sh Chollar-Potosi at 305 per foot, s 3.
15 shs Overman at 80 per sh.
30 shs Overman at 83 per share, b 30.
5 shs Overman at 84, b 5.
45 shs Overman at 85, b 20.
15 shs Overmon at 80, s 30.
5 shs Overman at 81 per ft, b 30.
5 shs Overman at 82, b 5.
5 shs Overman at 81, s 10.
5 shs Overman at 81½ per sh.
10 shs Overman at 81 per share, s 30.
5 shs Confidence at 20 per share, s 30.
15 shs Confidence at 20 per share.
10 shs Sierra Nevada at 5 per share, b 30.
Amount of sales.....$123,150 00

Wednesday, May 2.

348 shs Ophir at 550@515 per foot, b 30.
527 shs Ophir at 5.0@500 per foot.
312 shs Ophir at 500 per foot, b 3.
36 shs Ophir at 500 per foot, b 5.
12 shs Ophir at 502½ per foot, s 10.
62 shs Chollar-Potosi at 300@295 per foot.
6 shs Hale & Norcross at 93 @920 per ft.
5 shs Hale & Norcross at 925@920, s 30.
20 shs Yellow Jacket at 710@665 per foot.
3 shs Yellow Jacket at 700 per foot, s 3.
1 sh Yellow Jacket at 650 per foot, s 10.
3 shs Yellow Jacket at 680 per ft, s 30
2 shs Yellow Jacket at 685 per foot, b 30.
4 shs Gould & Curry at 775 per foot.
30 shs Imperial at 130@127½ per share, s 3.
10 shs Imperial at 128@127 per share.
10 shs Sierra Nevada at 4 per share, s 6.
17 shs Exchequer at 9 per share.
40 shs Confidence at 20@16 per share.
13 shs Overman at 79@77 per foot.
5 shs Overman at 76 per foot, s 30.
5 shs Overman at 77 per foot, b 15.
20 shs Overman at 79 per fool, b 30.
10 shs Omn bus Railroad at $60 per share
$5,000 Legal Tender Notes at 79½ per cent.

AFTERNOON SESSION.

12 shs Ophir at 507½ per foot
144 shs Ophir at 510@520 per foot.
72 shs Ophir at 540@545 per foot, b 30.
60 shs Ophir at 530 per foot, s 30.
12 shs Ophir at 52.½ per foot.
4 shs Gould & Curry at 750 per foot, s 30.
1 sh Yellow Jacket at 675 per foot.
1 sh Yellow Jacket at 685 per foot.
2 shs Yellow Jacket at 690 per foot.
8 shs Chollar-Potosi at 295 per foot.
1 sh Chollar-Potosi at 295 per foot, s 30.
2 shs Chollar Potosi at 297½ per foot.
3 shs Chollar-Potosi at 300 per foot, b 30.
2 shs Hale & Norcross at 917½ per foot.
2 shs Hale & Norcross at 915 per foot, s 3.
15 shs Bullion at 82½ per share.
1 sh Bullion at 83 per share.
10 shs Bullion at 85 per share, b 30.
10 shs Bullion at 80 per share, s 30.
10 shs Bullion at 82 per share.
27 shs Sierra Nevada at 3¾ per share.
100 shs Sierra Nevada at 4 per share, b 30.
15 shs Overman at 75 per share, s 3
30 shs Overman at 77 per share b 30.
5 shs Overman at 74 per share.
5 shs Overman at 73 per sh.
15 shs Overman at 75 per sh, b 30.
5 shs Overman at 72, b 5.
10 shs Overman at 12 per share.
5 shs Overman at 70 per sh, s 30.
15 shs Confidence at 16 per share.
15 shs Confidence at 15 per share, s 3.
5 shs Imperial at 129 per share.
25 shs Imperial at 130@132½ per share.
Amount of sales.....$149,150 00

Thursday, May 3.

264 shs Ophir at 560@580 per foot.
136 shs Ophir at 555@550 per foot, s 3.
48 shs Ophir at 550@560 per foot, s 30.
35 shs Ophir at 550 per foot s 5.
4 shs Gould & Curry at 725 per foot,.
38 shs Chollar-Potosi at 310 @313 per foot.
10 shs Chollar-Potosi at 320 per foot, b 20.
20 shs Daney at 9 per foot.
1 sh Yellow Jacket at 720 per foot, s 3.
3 shs Yellow Jacket at 710@705 per foot, s 10
3 shs Yellow Jacket at 710 per foot, b 3.
5 shs Yellow Jacket at 715@725 per foot
7 shs Belcher at 350@340 per foot.
1 sh Belcher at 335 per foot, s 30.
1 sh Belcher at 330 per foot, b 30.
4 shs Hale & Norcross at 910@915 per ft.
2 shs Hale & Norcross at 930 per foot, b 30.
20 shs Imperial at 126@141 per share, s 3.
5 shs Imperial at 140 per share, s 30.
10 shs Imperial at 141 per share, s 5.
18 shs Imperial at 141@142 per share.
10 shs Imperial at 141@145 per share, b 30.
29 shs Ophir at 72½@75 per foot.
5 shs Overman at 75 per fool, b 5.
20 shs Overman at 78@80 per ft, b 30.
5 shs Confidence at 16 per share, s 5.
10 shs Sierra Nevada at 4½ per sharo, b 10.
10 shs N B & Mission R R at 60 per share.
1 sh Cal Steam Nav Co at 59½ per ct.
12 shs Spring Valley W W at 67 per cent

AFTERNOON SESSION.

24 shs Ophir at 555 per foot.
81 shs Ophir at 550 per foot, s 30.
12 shs Ophir at 552½ per foot, s 5.
24 shs Ophir at 552½ per foot.
168 shs Ophir at 560 per foot, s 3.
12 shs Ophir at 552 per foot.
35 shs Ophir at 570 per foot, b 30.
3 shs Chollar-Potosi at 315 per foot.
2 shs Chollar-Potosi at 318 per foot.
5 shs Chollar-Potosi at 319 per foot.
5 shs Chollar-Potosi at 320 per ft.
3 shs Chollar-Potosi at 322 per foot.
22 shs Chollar-Potosi at 322¾ per foot.
10 shs Chollar-Potosi at 330 per foot, b 20.
1 sh Yellow Jacket at 720 per foot
3 shs Yellow Jacket at 740 per foot, b 30.
5 shs Chollar-Potosi at 725, b 3.
9 sh Chollar-Potosi at 720 per foot, s 10.
1 sh Chollar-Potosi at 717½ pr ft
1 sh Chollar-Potosi at 715 per foot, s 30.
2 shs Belcher at 310 per foot.
1 sh Belcher at 350 per foot, b 30.
50 shs Sierra Nevada at 4 per share, s 3.
5 shs Overman a 77½ per sh.
4 shs Overman at 79 per sharo.
7 shs Overman at 80 per share.
4 shs Overman at 79, s 3.
5 shs Overman at 79, s 10.
1 sh Overman at 79, s 3.
5 shs Overman at 80, b 10.
5 shs Imperial at 142 per share, b 30.
5 shs Confidence at 16½ per share.
2 shs Confidence at 16½ per share.
4 shs Confidence at 16½ per share.
2 shs Confidence at 16½ per share.
3 shs Confidence at 16 per share, s 30.
2 shs Confidence at 16 per share, s 30.
3 shs Confidence at 16 per share, s 5.
shs Confidence at 16 per share, s 5.
2 shs Confidence at 16 per sh, s 5.
1 sh Confidence at 16 per share, s 5.
Amount of sales.....$136,690 00

Friday, May 4.

156 shs Ophir at 520@510 per foot.
72 shs Ophir at 520 per foot, b 10.
264 shs Ophir at 517@512½ per foot.
156 shs Ophir at 515@520 per foot.
72 shs Ophir at 5.5@510 per foot, s 30.
24 shs Ophir at 5..1 per ft.
3 shs Savage at 985@975 per foot.
4 shs Gould & Curry at 800 per foot.
14 shs Yellow Jacket at 720@685 er foot.
15 shs Yellow Jacket at 690 per foot, b 5.
12 shs Yellow Jacket at 685@680 pr ft, b 3.
2 shs Yellow Jacket at 710@720 per ft. b 30.
18 shs Imperial at 139 per share.
10 shs Imperial at 138½ per share, s 30.
19 shs Chollar-Potosi at 317@315 per foot.
19 shs Chollar-Potosi at at 315@313 per ft.
30 shs Sierra Nevada at 4½ per share.
10 shs Bullion at 80@77½ per share.
3 shs Belcher at 325@315 per foot.
1 shs Empire M & M Co at 180 per sh.
4 shs Crown Point at 1250 per foot.
96 shs Overman at 80@76 per share.
25 shs Overman at 81@79 per share, b 30.
38 shs Confidence at 16½@16 per share.
Amount of sales.....$ 94,630 00

Mining Summary.

CALIFORNIA.

Alpine County—

The following notice of the "Mountain" ledge, is condensed from the *Silver Mountain Bulletin:* "The present tunnel was commenced in December, 1864, and it has been driven steadily ahead without cessation, excepting holidays, ever since. The estimated distance to run before cutting the main ledge was 1,150, and they are now in 700, leaving 400 feet yet to be run, which they feel certain of accomplishing by the 1st day of December, 1867. The last 150 feet has been through rock of the hardest character known in this section, but is now becoming softer, and a large volume of water that burst forth about ten days since, gives indications of the near approach to a ledge, although not the main one. Fourteen feet back from the present face of the tunnel, a small strata of quartz was struck that is very rich in ruby silver. * * * * The Mountain ledge is set down as the monster ledge of Silver Mountain District, as at the point cut in the upper tunnel, it was 60 feet in thickness."

The temporary difficulties under which the Wide West has been laboring are about being adjusted,—and they will soon resume operations.

From the *Gazette* we glean the following items:

Rock for the Mill.—The Buckeye No. 2 Company, near Silver Mountain, have entered into a contract with the Pioneer Mill at Markleeville, to supply that Mill with ore on condition that they make it yield one hundred and fifty dollars per ton, and the proprietors of the mill have agreed to take two tons on these terms, with the privilege of more if it works as they are confident it will. Dr. Winters, the assayer of the mill, thinks there will be no difficulty in getting the $150 out of it.

The ledge of the Lady Franklin is opened a short distance from where Buckeye No. 2 have made their rich strike.

The Mowyer is to be thoroughly prospected. Most of the stock is owned by parties in Illinois.

The tunnel of the 'American T. & S. M. Co., is now in 295 feet. Several spurs were passed through in running this tunnel, some of which show 'very pretty ore.'

Amador County—

The *Ledger* says that as soon as it hears of a claim in that county is *not* good, it will make a note of it as a news item.

The Coney quartz lead was sold a few days ago to a San Francisco company for $75,000. "The claim is considered cheap by those who understand quartz mines, but there are plenty more in this county equally as good, if we only had the capital to work them."

Messrs. Coney and Hayward have purchased the entire interest of Dr. Rendell in the Rendell copper mine, one mile north of the Newton and on the same range, and intend pushing forward work on it vigorously.

The Oneida mill has again commenced operations.

Butte County—

The Rancheria diggings, three miles below Oroville, are still being successfully worked. Water is sold at "one hit" per inch. The *Record* says that there is not an acre of ground for miles around Oroville, that does not contain gold; that one cannot miss "the color," let him sink a shaft where he will. When the Fraser River and Washoe excitements commenced, these placers, though still well worth working, were abandoned; and seem never to have felt the return tide of disappointed prospectors after "big things."

Calaveras County—

Some parties who have been prospecting a quartz lead in Happy Valley, have struck very rich rock. Work will soon be commenced on the claim in earnest. The *Chronicle* says: "From all parts of the county we continue to hear the most favorable accounts of our quartz mining interests. In the San Andreas district several lodes of great richness have been discovered within the last few weeks, which has created quite an excitement, and given a new impetus to prospecting. In our immediate vicinity a large number of companies are at work prospecting, many of them with the most flattering expectations of success. Calaveras will soon rank as the richest quartz mining county in the State."

Mariposa County—

The *Gazette* has a letter from Horse-Shoe Bend, in which the writer says there are still acres of mining ground unoccupied that would pay from two to four dollars per day, if worked by practical miners.

Messrs. Leland & Innes, who are drifting about 500 feet in the flat, are averaging about six dollars per day. Mr. C. Howland, who has been working his claim for about four years, is still doing well, after taking out thousands of dollars. Adjoining Mr. Howland is the claim of Messrs. Pettit & Bertran, which has paid well.

Twenty or thirty tons of rock from Lewis' quartz ledge, averaged $23 to the ton.

Ninety tons from the Hope, averaged $16 per ton.

A new discovery of a rich quartz vein was recently made on the head of Coarse Gold Gulch, about six miles southeast of McKeown's store, in Fresno county, by Colonel John Moss and Wm. Shear, of San Francisco. The owners have gone below for machinery, and intend erecting a mill immediately.—*Free Press.*

Recent accounts from the upper veins of the Hunter's Valley district are encouraging. La Victoire mine is now under the skillful management of Mr. P. D'Artigues, a very rich body of ore has been recently discovered, and the company will shortly recommence shipping.—*Free Press.*

The Potts' vein is said to be yielding from sixty to eighty dollars per ton.

The Buena Vista Petroleum company have determined to put up a distillery upon their claim.

Nevada County—

The *Gazette* says: After a trial of a week of the merits of the Waltzing pan, by W.C. Stiles, at his mill, we learn that he has determined to put in six or seven others of the same kind, and use them in place of the Knox pan.

A fine specimen of quartz and gold was recently taken from the claims of Mr. Souchet, at North Bloomfield. It is about two by five inches square, and is estimated to contain four hundred dollars.

Horace Ferre, who sometime since sold a portion of the California ledge, to New York capitalists, with the view of securing means to erect machinery to work the mine, has received instructions to commence operations. The ledge will be opened by an incline shaft, and an engine and machinery for hoisting and pumping will be put up without delay.

At the last run made by Binsley & Co., at Kentucky Flat, near Newtown, they cleaned up one hundred ounces of gold, all in coarse pieces, varying from twenty-five cents to ninety-six dollars.

The *National* says that Taylor, of the Grass Valley iron foundry, employs twenty-four persons, and is crowded with work. He has just completed an immense hoisting engine, the largest ever made in the county, for the celebrated Allison Ranch company. Taylor is also making a 16-stamp mill, of four batteries, for the North Star company, at the French lead. Each stamp will weigh about nine hundred pounds. The engine is to be 60-horse power and will be capable of doing all the work required.

We clip the following in regard to cement mills, from the *Gazette:* We learn that the cement mill of G. W. Clay & Co., at Hunt's Hill, will be started in operation again to-day or to-morrow. The owners were compelled to suspend operations in consequence of damages to the ditch, supplying water for the motive power. The mill of Tucker & Carney, near Clay & Co.'s, has been kept in operation regularly, and the owners are now making from $1,000 to $1,500 a week, clear of expenses The cement mill of the Gouge Eye company, at the little town of that name, is completed, and will be started up to-morrow. This is an 8-stamp mill, run by a hurdy gurdy wheel, and the owners have a fine bank of cement which will amply supply the mill. The Eastern mill, near the Gouge Eye, and of the same capacity, will be completed in two weeks.

Hunter's Concentrator is being introduced and approved of in Grass Valley. The Empire company intend to put twelve of these machines in their mill.

Six Knox Amalgamators have been purchased for the new mill at Ophir Hill.

A 20-stamp mill is to be put up by the Union Hill company.

Three bars, weighing together thirteen hundred ounces, valued at $17.40 per ounce, were the result of twelve days' run at the mill of the Eureka company, last week.

The Cambridge company is putting up hoisting works. As soon as they are completed, they will commence the erection of a mill.

The boiler for the hoisting works of the Burrington company, has arrived, and the company expect to have the machinery in operation in the course of two or three weeks.

Messrs. Norton, Hardy & Co., of the Ophir Hill mining company, have just erected a 20-horse power steam engine and attached to it a six-inch pump for freeing the mine of water. The shaft, five by ten, has been sunk to the depth of ninety-five feet.

The Empire company, south of the former, have worked their mine within a few feet of Norton & Co.'s line, disclosing there one of the richest and most valuable mines in the district.

At the depth of eighteen feet, the new Greenhorn copper ledge, says the *Gazette*, "holds its full size, being from three to four feet in width, and there appears to be no diminution in the richness of the ore. A shaft has been started on the northerly extension, some two or three thousand feet from Thorp's location, where the ledge has been struck, and the ore appears to be equally as rich at the same depth in the original location.

Placer County—

The following items are from the Placer *Herald:* The Pacific company, near Ophir, are still working away at their shaft. They are down now forty-eight feet, and the ledge at that depth is five feet and two inches thick.

A location was made within a mile of the Pacific this week, the croppings of which was assayed by Waters & Co., of Sacramento. The result was $410.85 to the ton.

Mr. Millet is about erecting a quartz mill on Baltimore Ravine, on the Haney quartz claim, which has been worked for some time by an arastra, and has yielded remarkably well.

The Lone Star company, near Ophir, have recently struck rich rock. The company are down about ten feet, at which depth the vein shows a width of about twenty inches, and contains considerable free gold. The company intend going down with their shaft.

Quartz prospecting is engaging the attention of miners all through the lower section of this county. New locations are constantly being made.

The Auburn *Stars and Stripes* says: We have definite information that work will shortly be commenced on several ledges near Auburn. Among others, the American and Jackson, Conrad and Herald, Holdredge, Baker, Green Emigrant and the Montgomery, which is believed to contain considerable silver, will be thoroughly prospected. The Emerald Isle, located in Yuba county, has been secured by home capital, and several other claims in its neighborhood by Eastern capital—among them the Altona, Last Chance and Mammoth. Upon the Altona machinery will be erected immediately and work prosecuted with all the energy which liberal capital can command. We confidently expect that a few months hence, Placer will rank as one of the first mining counties in the State. We candidly believe that, all things considered, there is no better field in the world for quartz prospectors and miners than may be found within the limits of our county.

Plumas County—

The Monitor company at Saw Pit realized, in two days' washing, 155 ounces; one piece weighed forty-six ounces.

The Eagle, in two days, cleaned up 106½ ounces.

The New York company, in six days, took out 510 ounces.

The diggings recently struck at Willow Ranch, and reported as new, were worked in 1852, and paid richly. A four-ounce specimen picked up about a week ago, contained $50 worth of gold. The gravel is easily piped down.

Bonner & Hardy's claims, on Chip Flat, are said to be paying well.

The Crescent company, at Indian Valley, has struck a chimney of very rich rock in the west end of their main tunnel. Gold can be seen in almost every piece of quartz taken out.—*Quincy Union.*

Sierra County—

The Downieville *Messenger*, of April 28th, says:

Hawkins & Co. cleaned up, for two men shoveling two days into boxes, twenty-one ounces, a few days ago, says a correspondent.

Jim Messerve finds his new quarts claim growing richer the deeper he goes. Beautiful specimens were on exhibition in town.

A piece of gold, weighing ten ounces, was picked up last week in the Live Yankee claims, near Forest City.

A letter from Goodyear's Bar to the *Messenger*, says: "As figuring most conspicuously, I will mention Newell's, Connelly's, Moore's and Jenning's, and lastly, but not least, the Downieville, *alias* Empire Co.'s claims, which are all paying handsome dividends to the lucky owners. Besides these, there are quite a number of other claims, which, after proper development, may turn out to be just as remunerative."

The Alleghany correspondent of the *Messenger* says: "Times are very lively here. * * * * * * *

The Union company struck a pocket containing three or four thousand dollars, a few days ago. That with the usual rock crushed will make a good clean up. The Masonic claim pays as usual, the best of anything in this vicinity. They work about thirty men. The Oak Flat company have their quartz mine thoroughly prospected, and it is thought they intend to sell it for something like a hundred thousand dollars, instead of putting on a mill themselves, as their old mill is now useless. The Twenty One company are anxiously waiting for the roads to open so they can get the machinery to complete their mill. The Fac Simile company are about to commence work, the water having prevented them from doing so for some time past."

Siskiyou County—

The Yreka *Journal* says that Scott Valley is getting to be a second Grass Valley for quartz. Sanborn & Co. have struck and are prospecting a lead on Smith's creek, near Rough and Ready, which presents every appearance of being silver. The rock is precisely the same in appearance as that of the Comstock lode in Nevada. The lead is a wide one, and the company are sanguine it is the genuine ore.

Great excitement existed at Scott Bar in regard to rich discoveries on Quartz Hill. One thousand dollars was said to have been taken out in the first day's work. "The second day's work is reported at $6,000, with over $50,000 in sight."

The Golden Gate shaft is now down fifty feet. The prospects are good.

Tuolumne County—

Near Cold Spring Cottage 'some men are working a bank of dirt that has been prospected by hundreds of miners, and left in disgust; yet good wages are being made out of it. In several places in that vicinity, which have apparently been turned over a dozen times, men are getting good returns.'

The Junction Flume Company have re-commenced work near where Woods' creek and Sonora creek unite. They have completed some several hundred feet of flume, and are pitching in right earnestly. The ground they propose working will pay from seven to ten dollars a day to the hand. The company has worked this claim for the past seven or eight years, during the summer season, with good results.

The *Courier* of April 28th, says: "Last Wednesday, at Jamestown, Judge Preston showed us a specimen which eclipses any quartz exhibition we ever saw or heard of, for beauty. The piece weighs several pounds—say four, and is fantastically ornamented with gold in all sorts of shapes, some parts being in the correct form of leaves, with all the fibres plain and distinct, as if executed by a skillful jeweller; others assuming the proportions of bunches of grapes and clusters of berries, most beautifully arranged. The real value of the specimen cannot be estimated, though intrinsically it is set at $328, which is its valuation by displacement. It is the most beautiful specimen in the State, without doubt, and would be the crown-piece in any cabinet. It came from the Hesscock claim, below Jamestown."

Tehama County—

The Mammoth has commenced work again.

Rock from the Red lode, worked at the Union mill, Lower Springs as a test yielded $15 per ton.

The Jollie Brothers have opened a lode at Muletown. It is two feet wide, and is tapped from a gulch, two hundred feet below where it crops on the hill. Four hundred and twenty pounds of the rock worked at Kelly's mill, yielded twenty dollars.

The lower tunnel in the Kellenger mine is a little over 900 feet.

Tulare County—

The Visalia *Delta* of April 25th, says: Mr. John Roberts, one of the owners of the Long Tom lode, has been in town for a number of days. We see some of the up country and Nevada miners talking about their ten and twenty stamps producing three and four thousand dollars per month, while every days' work of the Long Tom company's mill yields $1,000, and this with only twenty hands in mill and mine.

Yuba County—

The Pittsburg mine was sold recently to an Eastern company for $115,000. This mine adjoins the famous Blue Gravel claim.

The Shamrock and Creary's claim, though not yet fully developed, is said to give evidence of great richness.

Timbuctoo is going to decay. Its mines are worked out. "On the main street of the town whole rows of houses are closed, not having been occupied for a year or more. All energy and life seems to have departed from it, leaving it forsaken and desolate."

NEVADA.

Washoe—

The body of water lately struck in the Overman mine has been so far reduced that the workmen are now able to proceed with their operations on the lower level. They are now down 700 feet.

We yesterday heard of some exceedingly good work having been done at Rigby's mill, by the wet process, upon some of the stubbornest sulphuret ore from the Ophir. The ore experimented upon weighed 127 pounds and was worth according to assay $60.38. The value of the bar returned was $58.13. The very rich ores of the Comstock have heretofore

either been shipped to England or worked by the Freiberg process; it would now appear that it can be successfully worked by the wet process.—*Ter. Enterprise.*

The Swansea Smelting Works, at the south end of Washoe Valley, are now in good shape for work, and started up a few days ago. The proprietors are old furnace men from Swansea.

Dayton—

The *Territorial Enterprise* says of the Yellow Jacket mine, to which its editor paid a visit the other day—"This mine is a pattern of neatness, order and good workmanship, being splendidly timbered and the drifts high and roomy. There is but little water to contend with, an hour's working of the pump each day keeping the mine free. The pump is twelve inches in diameter, which lifts the water 255 feet, at which point it is discharged through the Gold Hill tunnel.

The Lyon County *Sentinel* of April 28th, says: "The Rock Point mill has lately received a new retort, of 1,500 pounds capacity—said to be the largest in the State."

Reese River—

We gather the following items from the Reese River *Reveille:* "A body of rich ruby sulphuret ore, about seven inches thick, in a formation of five feet, has just been developed in the Yankee Blade. The sample shown us to-day, in the assay office of Boalt & Stetefeldt, was of beautiful ruby silver, equal to the finest in the district."

James McCann has just discovered and located a handsome ledge in the Yankee Blade ravine. It is situated about 500 feet above and north of the Confidence, and is eight feet thick at the surface. Mr. McCann has named this fine vein the Patriot. A sample of its ore has been assayed by Messrs. Boalt & Stetefeldt, which yielded $1,630 40 of silver per ton.

We saw this morning at the assay office of Boalt & Stetefeldt, handsome specimens of beautifully crystallized native sulphur. They were obtained from a vast bed of gypsum, impregnated with sulphur, situated near the volcano a few miles north of Silver Peak.

Four bars from the Midas mill, the product of sixteen tons of ore from the Fortuna mine of the Consolidated Silver Mining Co., and valued in the aggregate at $2 987.41, were stamped "First born of the Consolidated S. M. Co."

Ore from the Great Republic, in White Pine district, yielded by assay $295.20 of silver per ton.

The mill charges for working ore at Reese River, have hitherto been from $55 to $65 per ton. Capt. A. L. Page, general superintendent of the mill and mine, has taken a step in the right direction. He proposes to reduce ores in lots of twenty tons and upwards, at $45 per ton, and smaller lots at the rate of $50 per ton; and he guarantees to pay eighty per cent. of the assay of the "pulp" of each particular batch of ore. The *Reveille* says: "This will be cheering news to our miners, and will cause many an idle mine to bring forth fair fruit of silver."

J. E. Clayton goes to New York to represent a mining property at Silver Peak. He has with him an elaborate report on the property, including a minute description of the district.

The Home Stake mill has again commenced running.

Several gold mines are being opened on Middle Hill.

The new 10-stamp Empire mill, Yankee Blade Ravine, is now in full operation.

The *Reveille* has been presented with four fine specimens of salt procured from Silver Peak, Smoky Valley, New Pass, and Humboldt. The specimen from Silver Peak is very beautiful, and is in the form of a cone three inches high; it is snowy white, and its myriad tiny crystals emit rays of light of almost diamond brilliancy.

A letter to the Nye County *News*, from North Twin River district, dated April 17th, says the machinery for the mill of the famous Murphy mine, is on the ground. It is to be a "forty stamper."

Two large mills are to be built in Silver Peak district.

A New York company have purchased a number of the mines in Clan-Alpine district, twenty miles from Austin, and have erected a fine 10-stamp mill, which is now ready to commence work. They are now taking out ore from one of their ledges, from which they have had very flattering returns by repeated assays. A town site has been surveyed, and a map made, and everything is in complete working order.

Esmeralda—

The two new districts, viz: Baldy and Myers, alluded to in our last issue, are to be thoroughly examined. Drs. Mitchell and Fitzhugh started on the 13th April for the purpose. The ledges in both districts are said to be large and well defined, and the ore taken from them is pronounced by good judges to be of excellent quality.

The *Union* says the Del Monte mill will probably commence running again about the first of May.

Owen's River—

Reports from this district are favorable. The Kearsarge ledge has been actively worked during the winter. Work will soon commence on the Lexington, Yosemite, Washoe and others. The frame of the Kearsarge mill is up, and the machinery being placed in position. Mr. Dorr, agent for the New York Mining and Milling Company has just arrived with a powerful mill from San Francisco, via Los Angeles. Other mills are said to be projected.

IDAHO.

The Owyhee *Avalanche* speaks of the rush to Montana as having raised the rate of wages to $6 per day; while it must inevitably lower the rate to Montana, and so send back disappointed laborers in full force later in the season, and in the end Idaho will be the gainer by the stampede.

A mammoth ledge, called the Dardanelles, forty-three feet in width, at the head of Jacob's Gulch, two miles north of west of Silver City, and the same distance west of Ruby, was discovered six months since, but kept a secret until within a few days past. The ore averages, by assay, $150 per ton. The company owning it claim a large tract of timber in the neighborhood, and an eligible mill-site. The lode has been traced over 3,000 feet.

In the Owyhee district there are now in full operation the following mills: Morning Star, 8 stamps; Minear, 5 do.; Jackson, 5 do.; Vass, 4 do.; Ainsworth, 10 do.; Shoenbar, 10 do.; New York and Owyhee, 20 do.; Cosmos, 10 do.; Lincoln, 20 do.; Grenzebach's, 10 do.

The *Avalanche*, of April 14th, says:

Creek, gulch and hauk mining has fairly commenced.

Lime, of a fair quality, has been struck in Flint district.

The diamond excitement is still lively. Finer specimens than ever have been brought into Ruby City.

The Reynold's Creek coal has been fairly tested, and found a good article.

The Morning Star cleaned up $12,000 during the past week.

The Dardanelles have doubled labor on their ledge.

The New York *Mining Index* speaks of the stream tin from Jordan Creek as hardly to be distinguished from Cornish specimens.

The Owyhee *Avalanche*, of April 14th, speaks of the Gould & Curry, which it calls the father of ledges in Owyhee. We quote:

Tuesday last we made a personal inspection of what could be seen of this new discovery. Took a pick and examined the croppings from side to side, and found *forty-five feet* of quartz on the surface. The day previous several blasts were made at different points of it, and at all places the rock is the same and looks well. An assay of croppings made by Thomas McDonald gives per ton: Silver, $14.10; gold, $38.88—total, 52.98. We saw the rock which was assayed, and know it to have been only an average specimen.

MONTANA.

The Montana *Post* says: An assay of rock from the Rockfellow lode, in Rattlesnake district, made in this city (Helena), shows 993 oz., 1 dwt., and 8 grains of silver to the ton of ore, with slight traces of gold. The ledge, which is thirty feet wide between the wall rocks, was discovered last fall by Mr. S. Decker, and there is a shaft forty feet deep sunk on the discovery claim.

Blue Cloud.—Lode well defined, 8½ feet thick; shaft, 38 feet. Three-quarters of a pound of the rock yielded sixty-five cents. The owners have one of Dodge's improved mills on the way from the East.—*Radiator, March 31.*

A letter from Deer Lodge City to the *Post* says: Pack-train after pack-train is loaded at this and other places for Bear and Elk creeks. Deer Lodge, Virginia, Helena and Blackfoot merchants are on the move for those places; and immense quantities of merchandise are being rapidly taken thither.

Several two-story stone buildings are being erected at Helena.

A dispatch from St. Louis, dated March 16, says the emigration to Montana via Fort Benton, resembles the California ditto of '49.

Large tracts of land in Montana are now being plowed and sown with wheat, oats, and barley.

The Dalles *Mountaineer* says the White Bluffs route via Pen d'Oreille Lake, is decidedly the best for those going to Montana. The Walla Walla *Statesman* has heard of no one who thinks of going that way, and says crowds are going from Walla Walla via Boise City.

A letter dated Silver Bow City, Montana, March 19th, to a correspondent of the Marysville *Appeal*, says that the whole of Spencer & Wilmot's pack-train, consisting of seventeen mules, was frozen on the road from Bitter Root to Deer Lodge valley.

A letter to the *Post* from Bannock City, Beaver Head county, gives some account of the quartz in the neighborhood. In the Blue Wing district, northeast of Bannock, are the Huron, Blue Wing, Arizona, Wide West, and Silver Rose claims. To the north of this is the Rattlesnake district. The lodes here are rich in argentiferous galena. The principal ones are the Legal Tender, White Cloud, New World, Watson, and Dictator. South is the famous Ducotah. Beyond are the Canon, Camp Grove, True Flag, Golden Gate, and Quartz Mill lodes. The writer saying "that the day is not far distant when the yield of the precious metals of Beaver-Head county will astonish the world, and that Bannock and Montana cities will be the head of all mining operations in our Territory.

T. J. Butler, who spent the last season in Montana, says in a letter to the Red Bluff *Independent:* "This country is not what it was represented to be, although there are some good mines, and the extent of the mineral country is almost boundless. There is plenty of good agricultural land on both sides of the range. * * * * * The mines are so scattered that each district has its own depot for supplies, as wagons can run in every direction."

Seven or eight trains have started during the past week, from Tehama county, for Idaho and Montana.

The Sultana mill is being thoroughly rebuilt.

The *Post*, of April 14th, says: Mr. Smith, of Beaverhead, has shown us some fine specimens of Rattlesnake ore; among others, we specially noticed that of the Golden Gate lode, which is mainly silver ore, though assaying $59.68 per ton in gold. A deep shaft has been sunk in the ledge by Messrs. Smith and Graeter.

OREGON.

The Portland *Herald* says: Recent tests leave no doubt of the fact that rock sufficiently rich to pay well for investment and labor has been found within a few miles of the Columbia river, easy of access, with an abundance of timber and water privileges close at hand. We saw, yesterday, a certificate of assay by Wells, Fargo & Co., which resulted as follows: "330 pounds of rock assayed $2.11 gold, and 93 cents silver, 815 fine. Total, $3.33."

It is said that a rich vein of silver ore has been found to exist within the copper ledge twenty-five miles east of Grand Ronde Valley. The streak of silver-bearing rock is said to be thirty-six inches in width.—*Oregonian.*

ARIZONA.

Work was resumed on the Sterling lode, March 27th. The *Miner* of April 11th says they are finding rich rock.

Twelve hundred feet in the Capital lode, near Prescott, sold recently for two thousand dollars.

The following items are from the *Miner*:

In sinking the new shaft on the Bully Bueno lode the ledge has been struck at thirty feet deep very rich, and it is said fourteen feet wide. This, we think, is one of the best lodes in the country.

Messrs. Duppa and England have returned from a prospecting tour down William's Fork, and are said to have found some good copper lodes. They report a large population near the Planet and other mines on the Fork, which are now extensively worked and highly valued.

Robert Meacham, Esq., an experienced mining operator long resident in California and Nevada, and for some months past living in Prescott, is about to begin work upon his ledge, near the saw-mill, called the "Gold Hunter," and in close proximity to the well known lode of Messrs. Noyes, Curtis and others, the "Tenth Legion."

Messrs. Borger & Wunderlich, arrived here week before last. Mr. Borger has secured a first rate 10-stamp mill for the Eugenie and other lodes in the Big Bug district, in which he is interested with Theo. Boggs and others. It is expected at Hardyville at an early day, and will be put up without delay

We hear that the Thunderbolt Crusher mills are at Hardyville, and that wagons will go from here at once for at least one of them.

Messrs. Coulter and Tyson, are preparing a place for their mill on Lynx Creek. Mr. Wickenberg is doing well with his mill at the Vulture.

Colonel Woolsey's mill, to run by water power, and put up near his Agua Frio ranch, will be in operation during the present month. Arrangements are making for a mill on the Big Rebel and other lodes in Walnut Grove, and Mr. Hardy is to have a large mill to work the ore of his Southern Cross lode, near Hardyville. Work is progressing, and a mill will soon be put on the Moss lode.

A new gold bearing ledge has, it is said, been discovered about 100 miles from Prescott. Specimens purporting to be from this ledge have been exhibited in San Francisco. It is estimated to average $125 to the ton.

The Excelsior ditch and mining company has been formed, with ample capital, for the purpose of working the placer diggings on Lynx Creek. The fluming, etc., is nearly completed.

Mr. William Thompson, Superintendent of the Great Central copper mine on the Colorado, writes to a friend in Prescott: "I shall soon have my furnaces up, and if they work as well as they did in San Francisco it will be the best thing that has happened to the country, as I shall be able to work and send to market ore yielding as low as fifteen per cent., and at a very small expense."

COLORADO.

From the Denver *Journal*, we glean the following:

Mr. Fitzpatrick yesterday finished delivering at the Excelsior Mill, below town, six cords of Gunnell ore, for which he gets $1,800, half down and the remainder on Saturday. The cylinders at that mill, under the personal superintendence of one of the Crosbys, are said to do their work very well and at the rate of about a cord a day. There is still difficulty in the amalgamating however. The ball burnishers do not work satisfactorily and a Howell Crusher is to be tried for burnishing. The purchase of and payment for this batch of Gunnell ore indicates that the owners are certain in their own minds of success.

Mr. Ford has got his furnace running successfully in the head of Russell Gulch. He is getting out about 1,200 pounds of lead a day. We know nothing of the plan of the furnace, but suppose it not unlike those rude machines used in the lead regions.

Ten "cords" of ore worked by Behr & Keith, yielded $683, in gold, per cord.

Several companies are anxiously awaiting their turns at *the* mill, which is in constant operation on custom ore.

Mr. Truman Whitcomb is setting up one of Collum's Separators at his mill. Though highly spoken of, but one of these has as yet been opened in the Territory. This one will be ready for work in a week or two.—*Denver News, April 11th.*

UTAH.

The "Deep Creek" mines are now attracting attention. They were discovered in the fall of 1864; but very little work was done. The following year a copper mine was opened, the ore from which proved to be worth $380 per ton in San Francisco. This silver lodes, however, are regarded as the most important. The *Vedette* says:

The result of fifteen assays made by Mr. Hartzline, of Egan Canyon, from the croppings of the Emet ledge, gave all the way from $50 to $250, in silver, and $9 to 23 in gold, per ton.

The ledges vary from six inches to three feet in width at the surface, and as far as they have been developed increase in width downwards.

Deep Creek is about 185 miles west from Salt Lake City, on the Overland Mail Line, and the principal mines are about 33 miles from Deep Creek Station, on what is known as the Old Emigrant Road.

The *Vedette* of April 26, says, in reference to the Rush Valley mines:

The operations now in progress in Rush are characterized by energy and sagacity of purpose. Owners of ledges are availing themselves of every opportunity to develop and prove the value of their property. With each day's labor they behold increasing evidences of the value of their mines, and none doubt the future success of that district. Several furnaces are rapidly approaching completion.

BRITISH COLUMBIA.

The Dalles *Mountaineer*, of April 13th, says: Major Blake, late of Wells, Fargo & Co's Express, and Major Robinson, an experienced assayer, left the Dalles on Saturday last, for the Suswap country. These gentlemen go to superintend the working of a silver lode lately discovered there, and for which the British Columbia Gold and Silver Mining Company was recently organized in Portland.

Mole-hills are curiously formed by an outer arch impervious to rain, and an internal platform with drains and covered ways, on which the pair and young reside. The moles live on worms and roots, and bury themselves in any soil in a few minutes.

In 1720, at the commencement of the eighteenth century, there was not one in twenty of all the manufacturing and rural districts in England, who could read the Bible or write his own name. Sabbath Schools were introduced in 1773.

If a person sends you an insulting letter, send it back, after having raised your foot and put a *stamp* on it.

The streams of small pleasures fill the lake of happiness, and the deepest wretchedness of life is the continuance of petty pains.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions of machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

San Francisco:

Saturday Morning, May 5, 1866.

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New Mining Laws of California and Nevada.

We have just issued, in cheap edition, the new laws relating to mining and corporations in California and Nevada, passed in 1865–6. Some of these laws are of the highest importance to parties interested in the matter of locating and holding claims, and prospecting mines, in these States. Copies sent by mail. Price, 25 cents.

Address, DEWEY & Co., Pateat Agents.
San Francisco, May 1st, 1866.

A ROCK-CRUSHING apparatus has been described as in use at Philadelphia for preparing the sand in the manufacture of sand-paper. It consists in a series of improved Chilian rollers. A set which weighs 8,000 pounds, and which costs in Philadelphia $4,000, is claimed to be sufficient to crush 100 tons in 24 hours. If this be *true*, it is exactly the machine we have been looking for in California, for quartz-crushing. The inventor can make his fortune here in a very short time, if he can demonstrate the fact. We think we see him.

TO CORRESPONDENTS.—An acceptable communication has been received from "W." We wish to see the author. Letter from Prof. Brewer of Yale, will appear in our next. M. A. W.'s specimens next week; ditto, "Query" of L. H. L.; "Progress," of R. R., soon.

NEW LAWS.—We are under obligations to Hon. James A. Banks, Speaker of the Nevada Assembly, for a copy furnished during the session, of the Act introduced by him, which we publish to-day. It is a very important law.

STATIONARY ENGINES.—We would direct attention to this class of machinery represented in the advertisement of Messrs. Treadwell & Co.

Our senior editor has been taking notes in Placer and Nevada counties this week.

OUR MINING SUMMARY this week presents an extensive variety.

QUARTZ MINING IN COLORADO.

The *Weekly Mining Journal*, of Black Hawk, Colorado, under date of March 27th, has two articles upon the mining prospects of the Territory. It gives particulars regarding extensive, incipient or projected operations in various localities, and considers the prospects decidedly bright. It is, however, justly severe upon the system of exaggeration that has been so unscrupulously practiced with respect to the present status and production of the mines. Upon this point it speaks as follows:

"For our part, if the Territory shall altogether produce five millions' worth of bullion this year, we shall be vastly encouraged. It will be better than was done in both 1864 and 1865 together. We do not think it an extravagant estimate. * * It is time that this extravagant talk about hundreds of mills in Colorado stamping out from twenty to forty millions a year should cease. It only injures us. There are not twenty mills in the Territory that could run successfully to-day, and a production this year of five millions, although seemingly meager in the light of the gas heretofore emitted on the subject of our gold and silver yield, would be most superlatively encouraging in the light of truth. It is perhaps not too much to say, certainly not too much to hope, that it would be doubled next year."

It says further—

"Why try to couple the success of our mines with the success of a single method of treating ores? And why, upon its inauguration, assume in effect that we never produced any gold before? And why, we might ask, in estimating our production, is it necessary to always put it five or ten times as high as it is, so that the truth, which must appear sooner or later, shall be so cooling and disappointing? If Colorado produces five millions of bullion this year, we shall be satisfied, and the country may well be."

It also publishes the following—

Figures.—It is earnestly to be hoped that one or more of the various separating processes now being tried in that Territory may prove thoroughly successful. The accounts from those of Mr. Lyon and Mr. Keith are very encouraging; but capitalists and the mining public generally desire to know something more than the mere fact that this process or that one turned out a bar of bullion weighing say one hundred pounds. They want to know the number of tons of rock from which that one hundred pound bar was extracted, and what it cost to extract it. These are the points by which they will measure success or failure. We do not wish to doubt the success of Mr. Lyon's process, for instance, but knowing how important it is to Colorado mining interest, *we cannot help suggesting to the press of that Territory the propriety of ascertaining and publishing the figures as to the quantity, cost, time, etc.* We are satisfied that Colorado will yet come out gloriously from her trials, and such an exhibit, if favorable, will hasten the time.—*American Mining Index.*

Lyon is in New York just now; suppose you try your hand at ascertaining "figures as to quantity, cost, time, etc." Be sure you get the truth; if you have to take any man's word, verify it if possible, and remember that whatever you report you are responsible for. Then give us the immutable figures, and we will acknowledge the pertinency of your numerous suggestions to the press of Colorado.

There seems to be a little captiousness in these remarks of the *Journal*, which is, perhaps, uncalled for.

It is without doubt, in general, extremely difficult if not impossible to obtain full and reliable data as to cost, etc. Parties engaged in working difficult ores are apt to be reticent upon such matters, and as far as it affects their private interests, they have the right to be so. Too much mystery in such matters, however, always smacks of ignorance or humbug, and proprietors of really valuable processes, as well as journalists, should always remember that nothing can be so convincing as facts like these; that general statements cannot supply their place, and that *so far as it can be done without prejudice to private interests*, it is of the utmost importance to all concerned that the truth in such matters should be known and circulated as widely as possible.

The *Journal* is very enthusiastic in its belief in the full and complete success of the Keith desulphurizing process. We shall, perhaps, be more fully convinced of this when it has been more extensively tested, and more detailed results have been published. As yet we have serious doubts respecting it.

There is a spirited contest going on between the same journal and a certain John Wetherbee of Boston, as to the merits of the Crosby and Thompson desulphurizing process, the *Journal* being of opinion that this process is "a most consummate humbug."

Without entering into the merits of this dispute, which is largely personal, and in which it may be difficult to learn the exact truth, we will say that we are somewhat inclined to agree with the *Journal*, as to its opinion of the process in question. We have already published descriptions of this process and comments upon it.

The talk put forth in connection with it, as to the existence of gold *in a volatile state* in sulphurets, the *ignoring of specific gravity*, etc., is too absurd to be seriously proposed to any one having a knowledge of the facts of chemistry and of the simplest elements of mechanics.

NEW INVENTIONS.

Most of the following list of Patents, recently issued to Inventors on the Pacific coast, were secured through the MINING AND SCIENTIFIC PRESS PATENT OFFICE AGENCY. Full copies of claims and specifications can be procured by application to us.

ARCHITECTURAL DESIGNS.—Samuel Kellett, of San Francisco, three patents for architectural center flowers. These designs are beautifully wrought, after natural patterns of the California fruits and flowers, and are of an order of high *alto-relievo*, rarely if ever attained before.

IMPROVED ROOFING COMPOUND.—George Duncan, of San Francisco, claims the preparing of burlaps with a tarry and bituminous compound, and covering the same with bituminous compound, in the manner and for the purpose set forth.

COVERING FOR HYDRAULIC HOSE.—Thomas McAuley, of San Francisco, and M. L. Cheney, of Illinoistown, California, claim the forming of a hose covering, by winding rope or cord spirally around a cylinder or former, and having for its support warps or strands of rope or cords passing around each spiral strand by means of a half twist, substantially and for the purpose herein specified and set forth. This invention relates to the covering of the common duck or canvas hose (used for hydraulic mining), with a net-work of cords, and consists in winding the cordage or rope, which constitutes the woof of the covering, spirally around a form of the desired size. Other strands are placed at right angles with the spiral strand, arranged in pairs, and are made to cross each other with a half twist, between each spiral of the woof. This invention is said to have been very successful in its practical tests.

DOUBLE-ACTING PUMP.—Assaria Rewerick, of San Francisco, claims the cylinders H and M, and pistons H and N, with their valves, when arranged and operated substantially as described. The above relates to an ingenious development for pumping, whereby the water is raised in a constant stream both by the upward as well as the downward stroke of the handle, by the employment of one cylinder and piston-rod—the upward stroke lifting the same quantity of water as the downward stroke of the piston forces up.

PUMP.—L. A. Gould, Santa Clara, California, claims connecting the rod, *h*, and hollow sleeve, *l*, respectively, of two buckets, *f*, and *f*, *c*, of a pump, to a common actuating lever handle or brake, on which the rod, *h*, is hung, through the sector-shaped gears, *s* and *t*, and arm *u*, all arranged and operating as and for the purpose specified.

PADDLE WHEEL.—Edward Jones, of San Francisco, claims a paddle-wheel provided with floats, convex on their outer edges, and increasing in width towards the outer ends, arranged relatively to the wheel shaft and to the sails of the vessel, substantially as described and set forth.

ORE CRUSHER.—Zenas Wheeler, of San Francisco, (anti-dated Feb. 19th, 1866,) claims the combination with the stationary jaw *g*, of the movable jaw *s*, when the latter is operated by the cam shaft, *o*, and adjusted at its lower end by means of the screw bolts, *t*, *t*, which are hinged thereto, and adapted to produce the motion described. Second, making the jaw dies in two or more sections or parts, substantially as herein described and for the purposes specified.

QUARTZ CRUSHER.—John Fleck, Santa Cruz, Cal., claims the two jaws A, A, provided with two upper inclined parts, *a*, *a*, and lower vertical parts, *b*, *b*, in connection with oscillating frame or walking beam B, and frames F, F, all arranged to operate in the manner substantially and for the purpose set forth. Second, the combination of the jaws, A, A, oscillating frame, B, and wheels *f*, *f*, for securing the upper ends of the jaws in the frame, as herein specified.

GOLD AND SILVER WASHING APPARATUS.—Joshua Hendy, of San Francisco, claims, first, the guide fingers, T, T, attached to distributur, G, working in slides V, V, or their equivalent. Second, the riffle bars, R, R, coated with mercury, for the purpose as herein set forth. Third, that the riffle bars R, R, guide fingers T, T, and slides U, U, in combination with distributor, G, and pan, B, with convex bottom, and central outlets, E, E, substantially as described, and for the uses and purposes as hereinbefore set forth.

ACKNOWLEDGMENT.—We have received from Mr. A. Sutro, who goes East by the next steamer, a copy of a magnificent lithograph, illustrative of the ridge in which the Comstock ledge is situated, and giving a plan of the proposed Sutro Tunnel.

We have also received a copy of a beautifully printed pamphlet on the subject of the Comstock, containing the report of T. Baron Richthofen, Doctor of Philosophy, to the Board of Trustees of the Sutro Tunnel, by whom he was employed in his professional capacity.

Both of these works are deserving of a more extended notice than our time and space this week will allow. We hope to do them justice in our next issue.

THE "LITTLE GIANT" QUARTZ MILL.—This machine, of which, it will be remembered we gave a description a few months ago, has met with favor in Ruby City, Idaho. H. A. Jones, Treasurer of the Cosmos silver mining company, No. 158 Broadway, New York, has received a letter from the financial agent of the company in that place, announcing the fact that one was started into full operation there on the 15th of February, and that it was pronounced a perfect success. With a driver of 8-horse power, it is reported to have pulverized one thousand pounds of ore per hour, to a sufficient degree of fineness to pass through a sieve containing 5,000 meshes to the square inch. This is said to be only one-half of its capacity if accompanied by a *crusher*, as delineated in the cut accompanying the notice in the PRESS, to which we have referred. R. H. Vance, 25 Nassau street, corner Cedar street, New York, receives orders there for the machine, and S. B. Pike, inventor, at the Miner's Foundry, for the same in San Francisco.

THE "AMERICAN JOURNAL OF MINING."—This is the title of a new weekly journal of sixteen pages, published in New York, the first two copies of which we have just received. Its salutatory address is brief and modest; making no special promises, except that politics, being entirely "incompatible with the spirit and scope of such a paper," will be utterly ignored. The typographical execution of the paper is remarkably neat, and its mining summary very complete. The subject of petroleum very properly receives a large share of its attention; and oil companies, as well as gold and silver mining companies, are tabulated in a very convenient form.

A FISH, four inches long, and without eyes, was pumped out of an oil well at Pithole, Pa., a short time ago. The well was six hundred and sixteen feet deep. The fish was put into water, but lived only a few hours.

IN addition to other machinery being erected in the Rawhide Ranch mill, Tuolumne county, our special correspondent should have mentioned in his communication last week, four of Hendy's Patent Improved Concentrators.

[Written for the Mining and Scientific Press.]

The Cement Mills and Claims around You Bet.

Messrs. Editors:—Seeing in a recent number of your valuable paper some mention about cement claims, and your wish for some reliable information concerning them, I will take pleasure in giving you some from personal experience and observation. There is in this State probably no section so rich and extensive as the vicinity of You Bet, in this description of mining ground. As an evidence of this, I have only to state the fact, that within the circuit of two miles of this place there are thirteen mills in active operation, crushing cement gravel. I will give you some account of the results of these mills and their crushings:

First—Edward Williams & Co., a 12-stamp steam mill, joining the well known Mallory & Co's claims, cleans up from $1,000 to $2,500 per week, and the average expenses amount to about $600 per week.

Second—Brown Bros & Co., an 8-stamp mill, driven by the so-called hurdy-gurdy water wheel. This company has made splendid runs, from $1,000 to $3,200 per week, with an average expense of about $500 per week. This is a very large claim, and is good for a number of years.

Third—Neece & West, a 10-stamp mill, with improved hurdy gurdy wheel water power. This company, about the first of January last, struck some of the richest blue gravel ever met with, and are cleaning up from $3,000 to $10,000 per week, at an average weekly expense of about $600. This has always been considered the best paying claim here, for it has been paying and worked continually about fourteen years. Its superiority over other claims consists also in the fact that after drift out their bottom bed of blue gravel, it will, by the breaking of the hill, be one of the best hydraulic claims in the State, for the top stratas have always paid large for piping. The blue gravel is actually as rich, if not richer, than the celebrated blue gravel claim in Smartsville, Yuba county, with which mine I have been acquainted since 1855. But, as you well know, a claim that is worked by such heavy blasting and with such a large quantity of water as the Smartsville claim uses, must in the same amount of time wash out ten times as much gold as a 10-stamp mill can crush out with one man feeding it. The quantity of dirt crushed in such a mill in one week could be washed in the Smartsville claim with 600 inches of water, in a couple of hours, if not in less time.

4th. Buckman Bros. & Co.; an 8-stamp mill, hurdy wheel power. This company is making money steadily, taking out from $800 to $2,000 per week with an average expense of about $450. This is an extensive claim, and will last a very long time, and is the first claim which tried the hurdy water wheel, as applied to crushing mills. They proved it a perfect success by running eight stamps of 800 pounds each, seventy-five drops per minute, with thirty inches of water, under 230 feet pressure (this being the average pressure obtainable by all the claims using mills here.)

But perhaps I am making this article too long, so much so as to prove troublesome; therefore I shall stop, as it would require much more space than you will be able to devote to a single letter, to give you anything like a brief account of all the mills and claims in this vicinity.

Should you see fit to publish this you can do so, and let me assure you that the above are strict facts, and can be easily ascertained. If acceptable, I will take pleasure in sending you some further accounts from the

Blue Lead.

You Bet, Nevada Co., March, 1866.

Coppersmith Work.—James Mucken, No. 226 Fremont street, is now engaged in manufacturing an evaporating worm for a sugar plantation on the island of Tahiti. The Miner's Foundry Co. are getting up the machinery for the sugar mill. Mr. Macken is also getting up the copper work for the opposition side wheel steamboat, now being built at North Beach, for the Sacramento river.

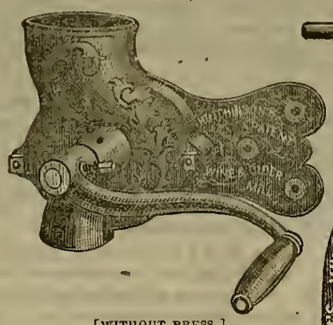
[Extract from Circular printed at the Mining and Scientific Press Book and Job Printing Office.]

HUTCHINSON'S
WINE AND CIDER MILL,

(PATENTED FEBRUARY 3d, 1863.)

FOR SIMPLICITY, COMPACTNESS, STRENGTH, ECONOMY OF POWER, QUALITY AND QUANTITY OF WORK, IT CHALLENGES COMPETITION.

IT WILL CRUSH THE FRUIT PERFECTLY FINE AND NOT CRACK A SEED, GRINDING TEN TONS OF GRAPES, BERRIES OR TOMATOES, OR SIX TONS OF APPLES, PER DAY.



[WITHOUT PRESS.]

[WITH PRESS.]

SOLE AGENT

FOR THE

PACIFIC COAST.

MANUFACTURED BY

WILLIAM B. KNOX,

At the GOLDEN STATE IRON WORKS,
19 FIRST STREET, SAN FRANCISCO.

Testimonial.

The "Scientific American," December 6th, 1862, in speaking of this Mill, says:

"We have seen it at work, and can give personal testimony as to its efficiency, having had it in operation in our office. All the labor consists in turning the handle to grind the apples into pomace or the grapes into must, as it is applied to cider or wine manufacturing; the juice then flows, by the combined operation of pressing and grinding, in a continuous stream at the rate of a barrel an hour into the tub below."

Evening Schools.—The Board of Education has very wisely continued the most of the classes of this department throughout the Summer. Mr. Holbrook's English class, on the corner of Broadway and Montgomery, and Mr. Marriner's, and one other in the Lincoln building, will be continued. The two classes for foreigners learning English, will be consolidated, and continued under Mr. Ralph Keeler, in the old Normal School building, on Post street, until further notice.

Wine and Cider Making.—We have just printed a pamphlet circular referring to the above named subject, for Wm. B. Knox, agent for Hutchinson's wine and cider mill. An illustration of the mill will be found in our advertising columns. Copies of the circular sent free on application to the Golden State Iron Works.

Arithmetic.—We know nothing of the earliest history of the ancient mathematical art of treating of numbers, but we know that, like all other sciences, it originated with the Greeks, who called it the art of reckoning, and named the science arithmetic. It would not be easy to find many clerks who resort to it as an amusement, and yet Dr. Johnson, with the most profound sincerity, declares: "Nothing amuses more harmlessly than computation." Nothing is more often applicable to real business or speculative inquiries. A thousand stories, which the ignorant hear and believe, die away when the computest takes them within his grasp. Numerical inquiries give entertainment in solitude by practice, and reputation in public by the effect.

The Age for Pupils.—The School Census upon which the apportionment of School moneys, after this year, is to be made, is to be of the children between five and fifteen years, instead of four and eighteen as heretofore. The limits of age during which children may attend the Public Schools will be from five to twenty-one in the future, instead of from five to eighteen years, as in the past.

State Normal School.—This institution will close on the 7th of June. The exercises of the graduating class will be held in Lincoln Hall. Mr. Minns, the Principal, goes East on a visit, having been granted a leave of absence for five months. The pupils of the School and the Teachers of the city will unite in giving him a complimentary party on Friday evening, June 8th, in the Hall.—*California Teacher.*

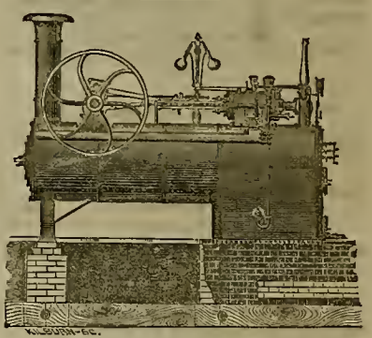
For the Sacramento Trade.—At Capt. North's shipyard, on the Potrero, a sternwheel steamboat of small size is being constructed for the fruit trade on the Sacramento river.

TOWNE & BACON, Print—
Stock Certificates,
Assessment Receipt Books,
Transfer Journals,
Circulars,
Hand Bills,
Cards,
Billheads,
And every kind of Job Work that may be desired.
A NEW ARTICLE OF TAGS FOR GROCERS' USE.
16v12 536 Clay street, opposite Leidesdorff.

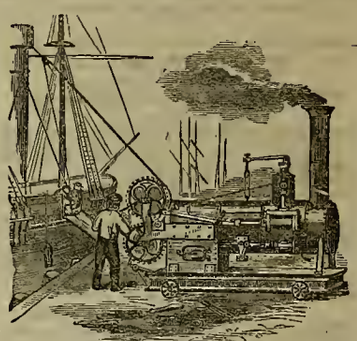
Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

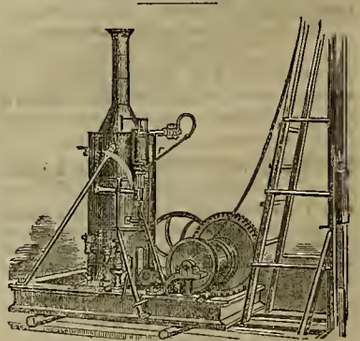
FOUR SIZES,
8, 10, 12, and 15-Horse Power,
HOADLEY'S.



HOADLEY'S.
3 to 40-Horse Power.



HITTINGER'S.
THREE SIZES,
5, 7, and 10-Horse Power,



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5 and 7-Horse Power,

COMBINING THE MAXIMUM OF EFFICIENCY, DURability, and Economy, with the Minimum of weight and price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises.) In fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mill's.

For sale by TREADWELL & CO.,
18v12 Corner of Front and Market streets.

Metallurgy.

EUROPEAN METALLURGICAL WORKS,
—AND—
Practical Mining School,
Bryant Street, Between Third and Fourth,
SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

S. P. KIMBALL, J. R. MURPHY.
10v10

G. KUSTEL,
Metallurgist and Mining Engineer,
Stevenson House, corner Montgomery and California sts.
Ores Analyzed,
Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
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BOALT & STETEFELDT,
Metallurgists and Mining Engineers
AUSTIN, NEVADA.
Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

Copper, Lead, Gold, Silver,
Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to
THOMAS PRICE,
Agent for Townshend Wood & Co., Swansea,
No. 406 California Street, San Francisco.
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MARTIN & CO.,
Office, Stevenson House,
Corner California and Montgomery streets (up stairs).
WILL CONTRACT FOR THE
PURCHASE OF COPPER ORES,
Assaying eight per cent. and upwards of Copper to the We will make advances upon Ores of Copper.
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Potassium, Magnesium,
And a fresh supply of
PURE CHEMICALS.
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(GRADUATE OF SCHOOL OF MINES, FREIBURG.)
Office, northwest corner Montgomery and Sacramento Streets.
Room No. 19, over Parrott & Co's Bank.
Assays—Analysis of Ores, Mineral Waters, etc., etc. Mines examined and reported upon.
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Agent for Messrs. Vivian & Son and Dillwyn & Co., Smelters at Swansea,
Is prepared to buy in any quantity
COPPER, SILVER, GOLD, LEAD
AND OTHER VALUABLE ORES;
Also Lead Bars Containing Gold and Silver.
☞ Full value paid on delivery in this City. ☜
Address Lock Box No. 992, P. O., San Francisco. 25v10

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ASSAY AND BULLION BALANCES,
And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.
A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.
San Francisco March 6, 1865. 11v10-tf

W. A. GOODYEAR. T. A. BLAKE.
GOODYEAR & BLAKE,
Civil and Mining Engineers
—AND—
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Among others, refer by permission to—
PROF. SILLIMAN New Haven Ct.
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W. C. RALSTON, D. O. MILLS, Bank of California.
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ASSAY BALANCES,
LADD & OERTLING'S,
For sale low, by
ISAAC S. JOSEPHI & CO.,
14v12-1m **641** Washington Street.

CLOTHING MADE FROM CALIFORNIA CLOTH,
For Wholesale and Retail Trade,
ALSO, CLOTHING MADE TO ORDER,
AT QUINCY HALL,
Nos. 545, 547 and 549 Washington Street,
SAN FRANCISCO, CAL.
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WATCH REPAIRING AT NEW YORK PRICES.
C. E. COLLINS,
No. 602 Montgomery street, San Francisco.
EXCLUSIVE AGENT
—FOR THE—
AMERICAN WATCH FACTORY.
A large assortment of these
Superior Watches,
In Gold and Silver Cases,
Constantly on hand, and sold at Factory prices. Also,
ENGLISH AND SWISS WATCHES,
Imported directly from he Manufacturers.
The American Company are now making
VERY FINE WATCHES FOR LADIES.
☞ A large assortment of Gold Chains and Jewelry. 25v10-6m
WATCH REPAIRING AT NEW YORK PRICES.
NEW YORK PRICES.

California Steam Navigation COMPANY.

Steamer **CAPITAL**.....CAPT. E. A. POOLE.
" **CHRYSOPOLIS**....CAPT. A. FOSTER.
" **YOSEMITE**..... — —
" **CORNELIA**.....CAPT. W. BROMLEY.
" **JULIA**.....CAPT. E. CONCKLIN.

One of the above steamers leave BROADWAY WHARF, at 4 o'clock P. M. EVERY DAY (Sundays excepted), for Sacramento and Stockton, connecting with light-draft steamers for Marysville, Colusa, Chico, and Red Bluff.

Steamships AJAX, PACIFIC, ORIZABA, CALIFORNIA, ACTIVE and SENATOR, leave, as advertised, for Honolulu, Portland, Oregon, New Westminster, British Columbia, Victoria, V. I., Santa Barbara, San Pedro, and San Diego.

Office of the Company, northeast corner of Front and Jackson streets.
B. M. HARTSHORNE,
13v12 President.

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Mantels, Monuments, Tombs, Plumbers' Slabs Etc., On hand and Manufactured to order.
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NATHANIEL GRAY,
General Furnishing Undertaker,
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Barstow's Metallic Burial Caskets and Cases.
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THEODORE KALLENBERG,
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MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.
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Palmer's Patent
ARTIFICIAL LEG,
Manufactured in Philadelphia, Penn.
JARVIS JEWETT, AGENT.
629 Washington Street, San Francisco, Cal. 10v8-1m

FIRE, HYDRAULIC & SUCTION HOSE,
And Leather Belting.
M. M. COOK & SON,
861 Battery Street, San Francisco,
Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.
The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO
CORDAGE MANUFACTORY.
CONSTANTLY ON HAND,
A Large and Complete Assortment
—OF—
MANILA CORDAGE,
FOR MINING PURPOSES
—ALSO—
WHALE LINE, BALE ROPE, ETC.,
Manufactured from Pure Manila Hemp.
Hoisting Ropes for Deep Shafts,
—ALSO—
Lines for Ferry Boats,
Manufactured to Order.
Office at **TUBBS & CO.'S,**
Nos. 611 and 613 Front street
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WE ARE NOW OFFERING
OUR IMMENSE STOCK
—OF—
Fine Custom Made Clothing
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AT PRICES THAT DEFY COMPETITION.
Our Stock of Clothing Consists of
ALL THE LATEST STYLES
BOTH OF MATERIAL AND FINISH.
A Large Assortment of
Trunks, Valises, Carpet Bags, Blankets, Etc.,
AT EXTREMELY LOW PRICES.
J. R. MEAD & CO.,
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Clay Street. **PAPER WAREHOUSE** AND **Printers' Material** CHAS. F. ROBBINS & CO. Clay Street.
10-v12

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

[Written for the Mining and Scientific Press.]

From El Dorado County.

BY OUR TRAVELING CORRESPONDENT.

[Continued from Page 267.]

One mile southerly from the Red Hill claim, lying along the bed of Dutch Creek, and two miles southwest of Kelsey, is

THE PLYMOUTH CLAIM,

Which we have deemed advisable to notice in this connection (although last visited), in view of the sulphurets and arseniated sulphurets of iron alluded to before, but here found in the greatest abundance, and in every imaginable variety. All sizes, shapes, shades and states are represented, from the little irregular sulphuret of different mineral bases—dark, gray, or yellow, and of almost every hue—living, lifeless, decayed—so small as only to be seen with a glass of considerable magnifying power, to a large wedge-shaped mineral compound, containing certain proportions of iron, sulphur and arsenic, if not other minerals; a hard, dark-brown substance, somewhat fusible and of such magnitude as in some instances, perhaps, to weigh fully fifteen pounds, one piece being eighteen inches wide, four feet long and one foot thick. Some of it having been brought to a red heat under the blow-pipe, showed, in cooling, a surface dotted over with delicate little specks of gold, less brilliant than the native specimens to be seen in the quartz; but scarcely less beautiful and attractive to the eye of the curious. This species is always found here firmly attached to a tough black slate, somewhat glazed and crisped, apparently its natural casing, whether found as the wall of the lode, or as strata cutting the quartz. The company have sunk a shaft to the depth of fifty feet on the lode, which is from twelve to fourteen feet wide, and have about 1,000 tons of rock ready for crushing, estimated by Mr. Potter, the Superintendent, to average from $20 to $25 per ton. They have a small 2-stamp mill, pump, arastra, and concentrator—the stamps not weighing over sixty pounds each—and all are run by twenty inches of water, the diameter of the wheel being about twenty feet. The sulphuret separator or concentrator is an invention of Mr. M. M. A. Woodside, of Georgetown, cheap, simple and effective, and as he has made application for a patent, we shall not undertake a description of it; 2,500 pounds of the arsenite, worked in San Francisco, returned at the rate of about $150 per ton. Messrs. Potter & Hunsucker, at the mine, tested 150 pounds of it after a method of their own, and assured me that they obtained one dollar per pound, getting a much larger yield from some of the sulphurets, which ran, in some instances, as high as five dollars per pound. The affairs of the company are in a very good condition as regards their finances, the whole of the work done, and the improvements made at the mine, having been paid for by the product of the same, while they have some money in the treasury. All they need is a good engine and mill, guided by the same prudence and economy heretofore manifested in their operations, to make this one of the foremost mines of the county, if we can judge anything from its past history and present indications.

About midway between the Plymouth mine and Kelsey, on the range of the great mineral belt, supposed by many to extend with a width of some ten miles along the western slope of the Sierras the whole length of the State, a large ledge may be seen from a distance of miles around, crossing the country from north to south, and cropping boldly out on hillside or mountain top, displaying here and there very large masses of quartz boulders—with heap on heap—reminding one of Vulcan and his once burning forge, or of some powerful internal eruptive force, adequate to produce the effects here visible in the form of the vast blows or chimneys so often brought to view. Near one of these is situated the claim of

THE GOPHER MINING COMPANY.

Under the guidance of Mr. Higgins, the Superintendent of the works, I passed along the main tunnel, well and substantially timbered the distance of 256 feet, and through cross-cuts and drifts, until I had traversed a distance in the aggregate of 500 feet, mostly through quartz, which is thought to be worth from eight to twelve dollars per ton, some thirty tons having worked the latter amount

One large chamber of sixty feet square had been carved out of the solid mass and worked in former years, with what results I did not learn. The statistics (promised by some of the officers of the company), many of which would have been of public interest, never came to hand, which is to be regretted, for if this large mass of quartz will average the amount above stated, and given on the authority of the Superintendent, it will prove one of the grandest enterprises of the day, for the ore can be mined and worked at a cost of five dollars per ton. The quartz boulders on the surface contain free gold, and the time is not far distant when they may all pass under the stamps. There can be no doubt that there is in this mine a large amount of valuable ore, which may prove highly remunerative to the owners, if properly selected and economically worked.

Leaving it as I believe in trustworthy hands, I remain, as ever, your faithful

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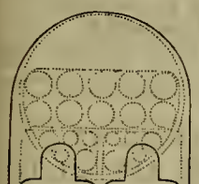

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1852. 1866

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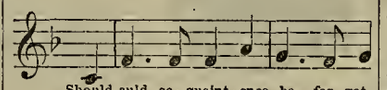

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Quotations of all important Bonds and Stock Securities in the United States; GOVERNMENT, STATE, CITY, BANK, INSURANCE, PETROLEUM, MINING, and other miscellaneous Joint-Stock Organizations, with the Financial Statements of the same; Notices of Payment of Interest and Dividends—

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We have for sale, at a bargain, a Second-hand Half-Medium (largest size), Ruggles' Engine Job Printing Press, of most approved pattern. It is in excellent condition, and warranted to work as good as new. Apply soon, at the office of the MINING AND SCIENTIFIC PRESS. 19v1ltf

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Drawings of MODELS made for parties applying for patents at Washington or London. mar23-tf.

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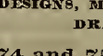

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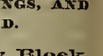

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WILLIAM P. BLAKE,

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Will make Surveys and Examinations of Mines, or give advice regarding their working, the erection of Machinery, etc.

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SHERMAN DAY,

Mining Engineer,

No. 57 Montgomery Block, San Francisco,

Will examine, survey and report upon mines, and consult and advise concerning investments in mining property, or the machinery management and expenditures of mines. 22q*

REMOVAL.

MONS. A. COULON,

Informs his patrons that he has removed his DRAWING SCHOOL from Pine street to

410 Kearny Street.

Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done. 20v11-1m

WM. H. KEITH & CO.,

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WM. H. KEITH & CO'S WINE OF PEPSINE, OR RENnet Wine, a new and efficacious remedy for Dyspepsia, Gastralgia, etc. WM. H. KEITH & CO'S GLUCOLAIN, a new and valuable compound of Cod Liver Oil, put up in glass jars. WM. H. KEITH & CO'S LEMON APERIENT, or Purgative Lemonade, an agreeable, cooling and active purgative, or mild laxative, as required. WM. H. KEITH & CO'S SAPONACEOUS TOOTH POWDER. DEVINE'S PITCH LOZENGES, for the cure of coughs and colds. Wm. H. Keith & Co's Florentine Tooth Wash. Wm. H. Keith & Co's Granula Effervescent Citrate of Magnesia. Wm. H. Keith & Co's Rosemary and Castor Oil Hair Invigorator.

WM. H. KEITH & CO. being in frequent communication with Eastern and European markets, are continually renewing their stock of Pure Drugs, Rare Chemicals, Fancy Goods, and Toilet Articles, Pure Oils, etc. They also give special attention to replenishing ship medicine chests.

Also, just received a large and well-selected invoice of HERNSTEIN'S CELEBRATED INSTRUMENTS, consisting in part of Amputating and Obstetric sets, Pocket Cases, etc.

Physicians and others at a distance ordering goods from us, can depend upon having their orders filled with the same regard to QUALITY and PRICE, as though obtained in person, and we give particular attention to packing and forwarding the same.

WM. H. KEITH CO.,

Apothecaries' Hall, No. 521 Montgomery street,
15v12Iy Between Clay and Commercial, San Francisco.

Judicious Resolutions.

Several of our most substantiul and judiciously managed mining corporations have passed resolutions, since the approval of the new assessment law, requiring all notice of assessments and sales to be published in the MINING AND SCIENTIFIC PRESS, the only thorough (daily or weekly) mining journal on this coast. Our efforts to concentrate all mining advertisements in one paper, for the economical convenience of shareholders and assessment payers, are meeting with decided success. Those who believe in supporting the mining cause, should bear our paper in mind, and bring up this subject at the next trustee or shareholders' meeting.

San Francisco, April 7th, 1866.

MANY WORDS adopted permanently in our language have been derived from proper names. For instance: bayonet is from *Bayonne*, the name of a French city in which bayonets were first made. Meander is from the river *Meatder*, in Phyrgia which is noted for its winding course. Millinery is so called because articles of that kind were first imported from *Milan*. Calico is from *Calicut*, so called because first imported from that place.

A NEWLY arrived John Chinaman in California purchased some ice, and finding it very wet laid it out to dry in the sun. On going to look for it again he found it had disappeared, and forthwith accused the whole Chinese neighborhood with larceny. A general riot was the consequence.

ELEVEN hundred and sixty three new species of fish were discovered by Prof. Agassiz in the course of his explorations on the main stream of the Amazon.

MR. H. P. CARLTON has been promoted to the Principalship of the State Normal School, during the absence of Mr. Minns.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

New Mining Advertisements.

Continued Mining Advertisements will be found on another page.

Capitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 30th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, or to E. H. SWARTHOUT, Treasurer, San Jose, California.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

D. R. BECKFORO, Secretary.

Office, 731 Clay street, San Francisco, Cal. my5

Dios Padre Gold and Silver Mining Company, Alamos, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of April, 1866, an assessment of three dollars per share was levied upon the capital stock of said Company, payable on the 29th day of April, 1866, in United States gold coin, to the Secretary, E. C. McCOMB, No. 1 Government House, corner Sansome and Washington streets, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 5th day of June, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 23d day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

E. C. McCOMB, Secretary.

Office, No. 1 Coverament House, corner Sansome and Washington streets, San Francisco, Cal. my5

Evoca Consolidated Copper Mining Company. Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May, 1866, an assessment of twenty-five cents per share was levied upon the assessable capital stock of said company, payable May 12th, 1866, in United States gold and silver coin, to the Secretary, C. E. ABBOT, or to A. E. THAYER, at the office of the Company, at No. 532 Merchant street, room No. 3, in the city and county of San Francisco, State of California.

Any stock upon which said assessment shall remain unpaid on the 6th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. E. ABBOT, Secretary.

Office, No. 532 Merchant street, room No. 3, San Francisco, California. my5

Great Basin Mining Company.—Location of Works: Humboldt County, Nevada. Office, southeast corner of Pine and Montgomery streets, San Francisco, California.

Notice is hereby given, that at a meeting of the Trustees of said Company, held May 2d, 1866, an assessment of nine cents was levied upon each and very share of the capital stock of the said company, payable immediately, in United States gold coin, to the Secretary, at his office, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale, at public auction, and unless payment shall be made before, will be sold on Mooday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of dvertising and expenses of the sale. By order of the Board of Trustees.

S. T. KING, Secretary *pro tem.*,

Office. S. E. corner Pine and Montgomery streets. San Francisco. my5-5w

Green Gold and Silver Mining Company. Location of Works and Mine: Gold Hill District, Storey County, Nevada.

NOTICE.—The Annual Meeting of the Stockholders of the above Company, for the election of Trustees, etc., will be held on WEDNESDAY, the 6th day of June, 1866, at 12 o'clock M., at the office of the Company, No. 606 Montgomery street, San Francisco. Proxies to be filed with the Secretary. JOHN HENDERSON, President.

R. H. SMITH, Secretary. my5

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary, C. HEYWOOD, 311 Market street, San Francisco, or to G. W. RUSSELL, Crescent City.

Any stock upon which said assessment shall remain unpaid on the 9th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 28th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. HEYWOOD. Secretary.

Office, 311 Market street, San Francisco, Cal. my5

Salamander Gold and Silver Mining Company, Calamander Creek, Calaveras County, Cal.

NOTICE.—The regular annual meeting of stockholders of the said Company, to elect the officers for the ensuing year, will be held on MONDAY, the 21st day of May, 1866, at 8 o'clock, P. M., at the office of the Company, No. 210 Post street (in the Drug store, near Dupont street). By order of the Board of Trustees.

E. J. PFEIFFER, Secretary.

San Francisco, May 2d, 1866. my5-2t

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Arizona Consolidated Mining Company.— Location: Colorado River, Eureka District, Arizona Territory.

NOTICE.—The Annual Meeting of Stockholders of the above named Company, for the election of Trustees to serve for the ensuing year, will be held on MONDAY, the 7th day of May, at four o'clock P. M., at the office of said Company, No. 611 Clay street.

GEO. W. BUNNELL, Secretary.

San Francisco, April 16, 1866. ap21

Assurance Mining Company---Location: Occidental Lode, San Benito Mining District, County of Monterey, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the company, 302 Montgomery street, Room No. 4, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. F. BRANORETH, Secretary.

Office, 302 Montgomery street, Room No. 4, San Francisco, California. ap14

Batopilas Mining Company, Batopilas District State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of April, 1866, an assessment (No. 2) of twenty-five (25) cents per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 811 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 10th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.

Office, 811 Montgomery Street, San Francisco, Cal. ap7

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

MONEY BY MAIL.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid.

Cosala Silver Mining Company, District of Cosala, Sinaloa, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 24th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Bayless, J H	51	5	$ 5 00
Bayless, J H	52	5	5 00
Bayless, J H	54	10	10 00
Bayliss, J H	55	10	10 00
Bayliss, J H	56	10	10 00
Bayliss, J H	57	20	20 00
Bayliss, J H	58	40	40 00
Bayliss, J H	59	50	50 00
Bayliss, J H	60	50	50 00
Bayliss, J H	61	100	100 00
Bayliss, J H	62	100	100 00
Crowley Timothy	566	11	11 00
Foote, F E (not issued)	566	20	20 00
Innes, Thomas	628	10	10 00
Nichols, A W	572	83	83 00
Rice, J M	488	5	5 00
Scholl, Michael	479	10	10 00
Scholl, Michael	480	10	10 00
Scholl, Michael	577	30	30 00
Toland, H H	105	123	123 00
Toland, H H	120	100	100 00
Woringen, L de	542	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 24th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the auction room of Maurice Dore & Co., 327 Montgomery street, San Francisco, Cal., on the 12th day of May, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHAS. BAUM, Secretary.

No. 510 Battery Street, opposite the Custom House, San Francisco. ap28

Genrge Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County Cal.—Assessment No. 11.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the Office of the Company only.

Any stock upon which said assessment shall remain unpaid on the 12th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. ap14

POSTPONEMENT.—The advertisement of stock delinquent on the above assessment, is hereby postponed until Saturday, June 9th, 1866, and the sale thereof until Tuesday, June 26th, 1866. By order of the Board of Trustees.

ap28 W. D. ROOT, Secretary.

Hanscom Copper Mining Company, Low Divide District, Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of April, 1866, an assessment of fifteen cents per share was levied upon the capital stock of said Company, payable immediately, in United States Gold and Silver Coin, to the Secretary, S. S. SWEET, No. 611 Market street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 8th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.

Office, No. 611 Market street, San Francisco, Cal. ap7

I. X. L. Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of April, 1866, an assessment of one and a half dollars per share was levied upon the capital stock of said Company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 338 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 17th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 7th day June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JAMES C. DAVLEY, Secretary,

ap14 No 338 Montgomery street, San Francisco.

Kenkuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on the 18th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 4th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. B. WINEOAR, Secretary.

Office, 308 Front street, San Francisco. ap21

Kentucky Copper Mining Company, Mine Felix District, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said company, held on the 2d day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable on the 3d day of April, 1866, in United States gold and silver coin, to the Secretary, at his office, 644 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 8th day of May, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 30th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. A. BAUER, Secretary.

Office, 644 Washington street, San Francisco, Cal. ap7

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 31st day of March 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at his office, 305 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 7th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 5th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. S. LETY, Secretary,

Office, 305 Montgomery street, San Francisco, Cal. ap6

Xucatra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, (in the Drug store, near Dupont,) or to the Treasurer, A. RIMMELMANN, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 2d day of June, 1866, and unless payment shall be made before, will be sold on the 20th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug store, near Dupont street,) San Francisco, Cal. ap23

North Star Gold and Silver Mining Company, Reese River Mining District, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 9th day of April, 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately to the Secretary, GOTTLIEB BEER, No. 226 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 14th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 6th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GOTTLIEB BEER, Secretary,

Office, No. 226 Front street, San Francisco, Cal. ap21

Simpson & Bassett Mining Company.—Mines located in Carson Valley.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 20th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable on the 30th day of April, 1866, in United States gold and silver coin, to the Secretary, or to Dr. J. W. WATERS, Markleeville, Cal.

Any stock upon which said assessment shall remain unpaid on the 25th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 14th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. BIBBINS, Secretary.

Office, 305 Montgomery street, San Francisco, Cal. ap28

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

Sierra Valley Gold and Silver Mining Company, Plumas County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 26th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately, in gold coin of the United States of America, to the Secretary, at the office of the company, No. 607 Washington street, in the city and county of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 31st day of May, 1866, will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 18th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. apr28

United States Mining Company.---Location Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of April, 1866, an assessment of one dollar per share was levied on each and every share of the capital stock of said company, payable immediately, in gold coin of the United States, to the Secretary, at his office, or to DR. T. H. PINKERTON, South B street, Virginia, Nevada

Any stock upon which said assessment shall remain unpaid on Saturday, the 26th day of May, 1866, will be advertised as delinquent, and unless paid, will be sold on Wednesday, the 13th day of June, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

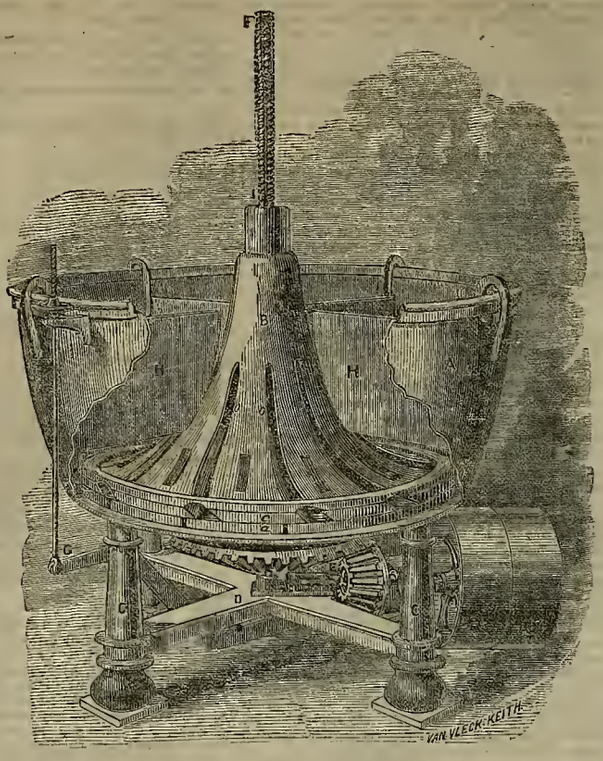
J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets. San Francisco. nd21

ITS correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco. [Nye County News.

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,



The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

Machinery.

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self-acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,

Virginia City, Nevada.

15v11tf Through Wells, Fargo & Co's Express.

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.

15v12-3m

NEW MINING PUMP.

Excelsior Double-Acting Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind-mill, horse, or steam-power.

No. 1—Cylinder 2¾ in., stroke 6 in.
No 2—Cylinder 3 in., stroke 7 in.
No 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No 5—Cylinder 6 in., stroke 18 in.

The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,

12v12 3m 120 Front street,

Prater's Concentrator.

NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Dinsmore's Machine and Iron Works,

SAN FRANCISCO.

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

Address: MORGAN HUNGERFORD,

10-v12 San Francisco, Cal.

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setlers for themselves, at the **PACIFIC FOUNDRY,**

1v1 San Francisco.

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, WASHOE, AUSTRALIA,
ENGLAND, FRANCE,

— AND —

THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.

4v10

The Mechanics' Institute

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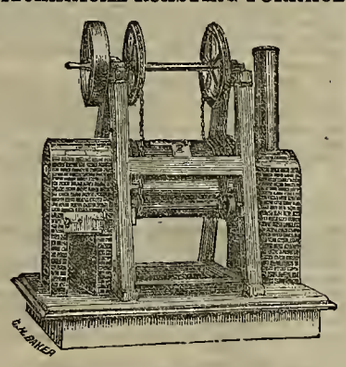
PREMIUM SILVER MEDAL

TO BRUCKNER'S

MECHANICAL ROASTING FURNACE.



Parties wishing to erect such Furnaces, are requested to leave their orders with

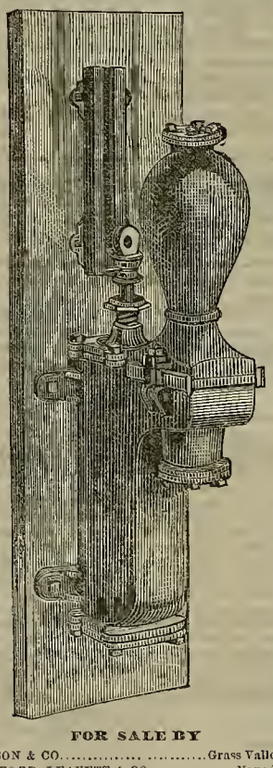
T. KALLENBERG,

12v11 416 Market street, San Francisco.

Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast

Six-Inch Mining Pump.

THE HANSBROW PATENT PUMPS!



Warranted the Best Pumps Offered. All Sizes for Any Purpose.

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CRAWFORD, LEAVETT & CO. ..... Nevada, Cal.
GEORGE E. TURNER ..... Nevada, Cal.
JACKSON & BLISS ..... Stockton, Cal.
FRANCIS SMITH ..... Austin, Nev.
THOMAS HANSBROW ..... Sacramento, Cal.

And Hardware Dealers Generally.

WHOLESALE AGENTS:

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112 and 114 Battery street, San Francisco.

Send for Catalogue and Price List. 16v12-1m

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

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Corner Fremont and Mission Streets.

All orders promptly attended to.

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[Written for the Mining and Scientific Press.]

The Mineral Developments of Colusa County.

MESSRS EDITORS:—I have just returned from the oil region of Colusa county, where I find everything in quite a prosperous condition. The weather is fine, and the roads are again passable. The hills and plains are covered with verdure, and the air is odorous with the scent of beautiful wild flowers. The few enterprising gentlemen who have gone into that country to prospect for oil, seem to catch the life and vigor of spring, and all are busily engaged in applying or making preparation to apply the test, which will this summer determine, to a great extent, the existence or non-existence of oil in California. Most of the lands from the entrance of Lain's Cañon, from the plains on the east, to Wilbur Springs, a distance of 17 miles, is taken up and claimed for oil lands. There are "indications" to be found almost everywhere the whole distance; and in several places they are quite flattering.

Capt. Rowes' well is situated on Sulphur Creek, about half a mile to the east of Simmon's Sulphur Spring; it is about 150 feet deep, and has quite a showing of gas and oil. Operations were suspended on this well last winter, but I think the Captain intends to commence again this spring. About two miles below this, and a mile below the junction of Sulphur and Bear creeks, is the Emerson well. This well has reached a depth of more than 200 feet, through a large sandstone strata, and has had quite a flow of gas, with a flattering prospect for oil, all the way down. Mr. Hardinberg, the Superintendent, is erecting machinery with which to thoroughly test the well this summer. About two miles below the Emerson, on Bear Creek, is the Winum well, on which but little work has been done; but still the prospect is good. The Whiting well is located in Botts' Cañon, about a mile from its junction with Lain's Cañon. The company have a very fine steam engine, with all the necessary machinery for boring. They are pushing on the work, with bright hopes and a fair prospect for success. Mr. Hughes, of Sacramento, is busily engaged in getting up his machinery. I think he intends boring on Lain's ranch. The Shepardson well is situated in a gulch to the north, and about two miles from its junction with Lain's Cañon. This well has been sunk to a depth of about 130 feet. They are still at work, but are progressing very slowly. At the depth of 100 feet, a strata of soft, pebbly shale was struck, which caves in and fills up the hole as soon as the drill is withdrawn, It is estimated that sixty tons of this gravel has been taken out with the sand pump, since it was first struck The oil prospect is good, however, and if an experienced man could be found who could pass the tubing through this place, the well would promise fair for success. The Lewey well is located at the mouth of Lain's Cañon, about half a mile from the plains of the Sacramento Valley. This company has a very good location. The well is about 100 feet deep; but work has been suspended for some time. I don't know whether they will start up again this spring or not.

When I speak of these companies as having good prospects, I make a California comparison; as I know nothing of the Eastern oil fields, but what I have learned from books, or in conversation with those who have visited them. But from what I have learned, the indications here compare favorably with those of the East. There is oil and gas issuing from the earth in numerous places; there is also the sand, shale and limestone, and most all the other indications found in Pennsylvania. The only objection that can be raised is, that the strata is too much tilted, which objection I intend to speak of some other time. But, in addition to the oil interest, there is quite an interest in another direction.

About a quarter of a mile from Simmon's Spring (to the west), is situated the Oriental Quicksilver mine, upon which considerable work has been done this winter, resulting in developments that promise not only to add much to the mineral wealth of our State, but which have also brought to light much that is of interest to the scientific world. The company have a quicksilver lode from forty to sixty feet wide, intersected by various branches of sulphurets of mercury, containing free gold in considerable quantities. Here, then, we have a sulphuret of mercury and free gold, a combination that, so far as I can learn, never has

occurred before. [We should be pleased to add some specimens of this rare mineral to our cabinet.—Eds. Press.]

About a quarter of a mile to the north of the Oriental mine is the Burke sulphur bank, upon which Mr. B. has been at work for some time, and from which has been taken ont quite a quantity of native sulphur.

There are numerous other curious matters of geological and mineralogical interest ol which I would like to speak, but I fear my letter is already quite too long, and I defer anything further till nnother time. MINER.

April 25, 1866.

SECRET OF MAGIC.—Robert Houdon concludes his memories with a chapter of Arab miracles, which he explained. The Aissnoua eat powdered glass. Houdon powdered some for himself and ate it, and he avers that his appetite for dinner was improved by the same. They walk on red hot iron with bare feet, and pass their tongues over white-hot plates of iron. Prof. Sementrici discovered that by rubbing into the skin a solution of alum evaporated to a spongy state, it was rendered insensible to the action of red-hot iron. He rubbed himself with soap, and found that even the hair did not burn. He rubbed the alum into his tongue, and lapped the glowing metalic surface without pain. Houdon himself then tried passing his hands, slightly dampened, through a stream of melted iron, and found, as others have done, that it left no scar on him. An English conjurer used to thrust a sword through his body, shove a knife up either nostril to the handlo, and thus spitted, sing a song. Houdon bought the secret of the invulnerable, and now divulges it. The performer was very thin. With a waist-belt he strapped his tender paunch tight down upon the vertebral column, substituted a card-board stomach for the compressed part, covered all with flesh-colored tights; between the true and false abdomen he fastened a scabbard, covered the aperatures on the sides with rosettes, placed n sponge filled red liquid in the scabbard, and there thrust his sword, which came ont covered with bogus blood, of course. The pug-nosed mountebank enjoyed a physical conformation which permitted the delicate and frightful performance.

THE AMERICAN FLAG.—The facts as to the origin of the American Flag, are simply these: A number of flags had been used previous to the Declaration of Independence, none of which could he called *national*. On the 14th of June, 1777, Congress ordered "that the flag of the thirteen united States be thirteen stripes, alternate red and white; that the union be thirteen stars, white in a blue field, representing a new constellation." The idea is supposed to have been suggested by John Adams, who was then chairman of the board of war; and it is believed that he took the idea from the arms of the Washington family, the shield of which represents a white field traversed by two red bars, with three spur rowels or stars in the upper portion. The resolution of June 14th was not made public until September 3d, 1777, and the stars and stripes were first displayed conspicuously at the surrender of Burgoyne, in October of the same year. No attempt was made to alter the flag until 1794, when it was resolved by Congress that there should be fifteen stripes and fifteen stars in it. The addition of a star and a stripe for each new State was found to be exceedingly inconvenient, as it would soon enlarge the flag to ridiculous proportions. In 1817, Captain Reid, of the navy, who had commanded the famous privateer General Armstrong, suggested that the thirteen stripes be retained in commemoration of the thirteen original colonies, and that a new star be added to the cluster in the union on the Fourth of July next succeeding the admission of any new State. The suggestion was adopted by Congress, and on April 4, 1818, became a law. The first flag under this law was made by the wife of Captain Reid. This lady died in Baltimore, Md., nbont the year 1857.

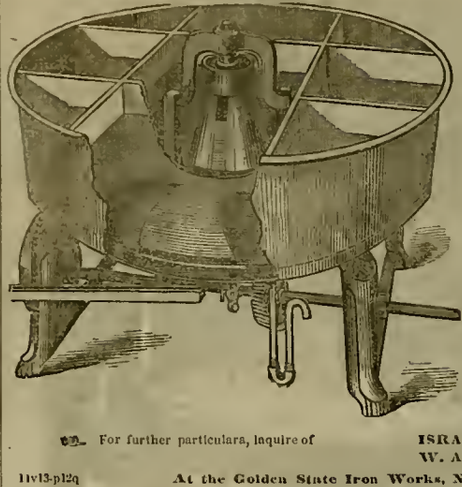
THE MYSTIC THREE.—Three forks to Jupiter's thunderbolt: three prongs to Neptune's trident; three heads to Cerberus; three legs to the tripod or stool on which the Pythian priestess vaticinated; three names to the sun—Sol, Apollo, Liberi; three also to the moon—Hecate, Diana and Luna; three ablutions at sacrifices; three bows on approaching royalty; once, twice, thrice, and away, say the boys; and three balls are the ominous emblem of pawnbrokers.

THE MEMORY OF A MOTHER.—When temptation appears, and we are almost persuaded to do wrong, how often a mother's word of warning will call to mind vows that are rarely broken. Yes, the memory of a mother has saved many a poor wretch from going astray. Tall grass may be growing over the hallowed spot where all her earthly remains repose; the dying leaves of autumn may be whirled over it, or the white mantle of winter may cover it from sight; yet the spirit of her, when he walks in the right path, appears, and gently, softly, mournfully calls to him when wandering off into the ways of error.

We must pass through this world to unlock the mysteries of the next; and it is only in the next that we can find a key to unlock the mysteries of this.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of EIGHT YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of

ISRAEL W. KNOX, OR
W. A. PALMER, Inventors,
At the Golden State Iron Works, No. 10 First street, San Francisco.

11v13-p12q

HEUSTON, HASTINGS & CO.,

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FASHIONABLE CLOTHIERS

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ARE SELLING

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—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

☞ At Reduced Prices. ☜

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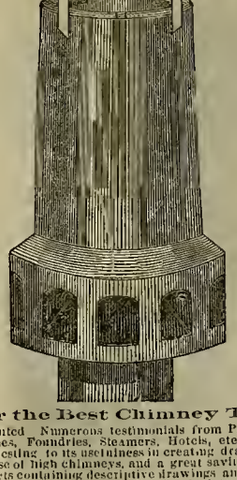
A RARE CHANCE FOR INVESTMENT,

THE PATENT RIGHT FOR SALE FOR STATES, TOWNS AND COUNTIES.



For the Best Chimney Top

Ever invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its neatness in creating draft, saving the expense of high chimneys, and a great saving of fuel.

Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee, B. A. HENRIKSEN,
Or J. E. JOERGENSEN,
12v12-3m No. 328 Kearny street, San Francisco.

Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

COMBINING THE MAXIMUM OF EFFICIENCY, Durability, and Economy, with the Minimum of weight and Price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mill's.

For sale by TREADWELL & CO.,
3v12-3m Corner of Front and Market streets.

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—Nye County News.

BAUX & GUIOD S

Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

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Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK, EMbracing all Modern Improvements, suitable for Mining, Milling, or other purposes. Will be sold at Manufacturers' rates and charges.

Apply to A. E. CRANE,
16v12-3m 310 Washington Street, up stairs.

FOR SALE
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to HEYNEMANN & CO.,
25v11tf 311 and 313 California street.

LEFFEL'S
American Double Turbine

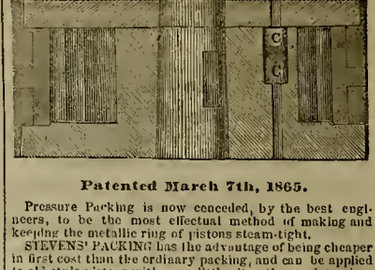
THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water wheel ever made, and which has given unusual satisfaction wherever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 200 feet fall. Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

KNAPP & GRANT,
—ALSO—
San Francisco.

Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by KNAPP & GRANT,
12v12-3m San Francisco,

Stevens' Pressure Packing.



Patented March 7th, 1865.

Pressure Packing is now conceded, by the best engineers, to be the most effectual method of making and keeping the metallic ring of pistons steam-tight.

STEVENS' PACKING has the advantage of being cheaper in first cost than the ordinary packing, and can be applied to old style pistons with very little alteration or detention. In place of testimonials, the Patentee requests of those who are using the old spring packing to inquire of the owners of the various engines which now have this packing in use—some of which have been running from three to twelve months without being opened, or showing any descriptive leak—and act upon their recommendation.

Further particulars can be had by applying to the Patentee, ANDREW STEVENS, Master Mechanic, Alameda Railroad, or at the VULCAN IRON WORKS, where they can be seen, at any time, in course of construction.

10df ANDREW STEVENS.

PETROLEUM STOVES.

A **MOST USEFUL INVENTION FOR ALL** manner of COOKING and for IRONING, without any filter, as ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Cooking by them is divested of its disagreeableness, and becomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,
Proprietors for California.

San Francisco, March 3d, 1866. 10-v12

SAVE YOUR MONEY AND BUY,

For $100!

HUNTER'S
Premium Concentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

THE ABOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 135 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent. more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 118 Washington street, below Davis, where ALBERT JACOBS will fill their orders promptly.

ANDREW HUNTER,
17v12-tf Inventor.

The Great Pain Annihilator.

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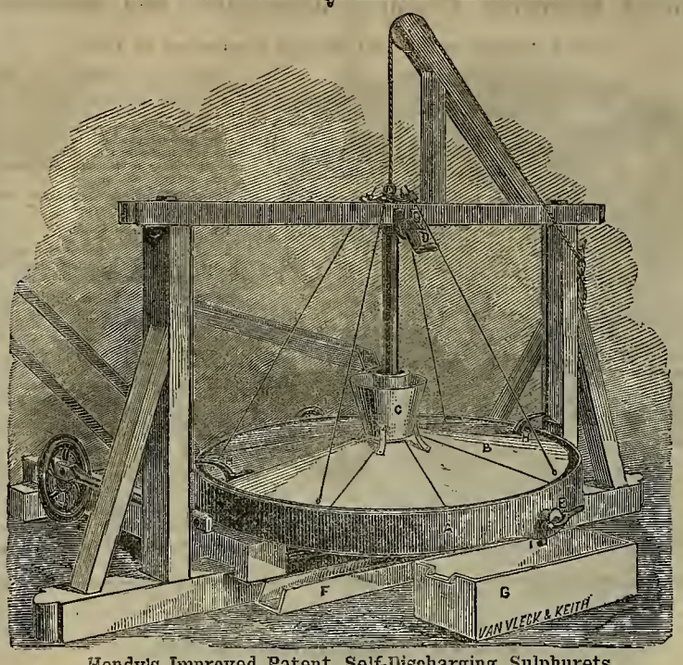

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Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County,
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Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors.

SAN FRANCISCO, SATURDAY, MAY 12, 1866.

VOLUME XII. Number 19.

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Gold in San Mateo County.—The San Mateo *Gazette* of May 5th, has the following:

"We have been shown some very rich specimens of gold-bearing quartz, that was taken from a ledge not four miles from Redwood City. The same party who discovered this ledge, also has two or three pennyweights of fine gold, that he panned out by moonlight the other evening, from dirt taken out of a mine in the vicinity of the quartz ledge. We are not at liberty to make any more definite statements, as to either the location or the person making the discovery. His operations so far have been carried on in the night to avoid discovery."

It will be noticed that this panning out was done by "moonshine."

A Gold Placer in Ohio.—We have been permitted to make the following extract from a letter received by Prof. Rowlandson, of this city, per last steamer, from Prof. Chas. S. Richardson, of New York:

"A great gold placer has been found on the lake shore in Ohio. Some gentlemen here have just returned from there, and have brought with them quite a nice little lot of gold. It is all in thin flakes. They say it lies from two to four feet deep in the gravel, and upon a hard bed of clay. The specimens of gravel they brought is a drift, very much broken, with black, blue and yellow quartz, together with some gneiss and pieces of what appears to be trap and greenstone. A liberal offer was made me to go out and examine the discovery, and report upon it; but I have too much on my hands to undertake the trip."

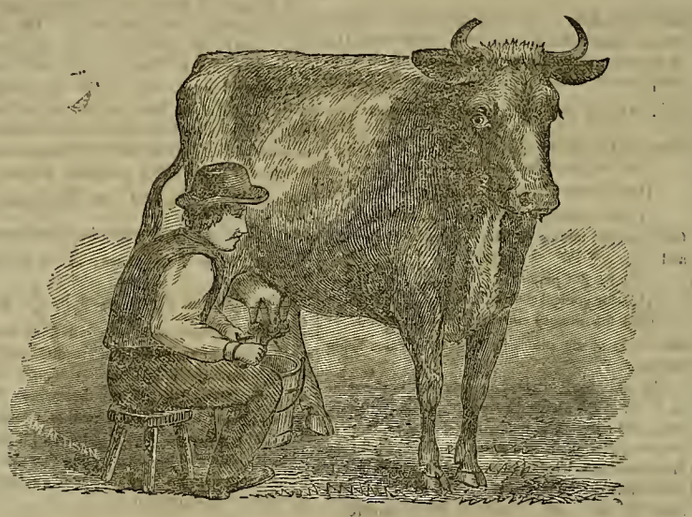
New Crusher and Pulverizer.—Mr. Joseph Fowler, of Rahway, N. Y., has recently invented, and patented in this and several European countries, a crusher, something similar to the Blake machine, and a pulverizer, upon what appears to be quite a new construction. A model of this crusher has been placed on our table for the examination of such as may be interested in such matters; together with a rough sketch and description of the pulverizer. A letter from the inventor states that quite a number of the machines have been sold in Europe. No effort has yet been made to introduce them to the California public. The chief merit of the invention appears to be in the pulverizer, which it is difficult to describe without drawings. Persons interested can examine the sketch and accompanying description left with us at the office of the Mining and Scientific Press.

New-York Experts.—We refer with pleasure to the professional card of Messrs. Maynard & Tiemann. We like the manner in which these gentlemen transact their business with publishers. It is an indication of promptness and accuracy in all their transactions.

THE AMERICAN COW MILKER.

We present herewith a very fine illustration of what is known as "The American Cow Milker," together with the manner of using the same. This machine is exceedingly simple in its construction, easily worked, cheap and effective. In evidence of this assertion we have the unqualified and voluntary testimonials of several of the most influential agricultural journals published in the Atlantic States.

In no part of the world is a machine of this description so much needed as in California, where labor is high, and where there is also such a disposition to slight almost every description of work. The losses incurred by dairymen in this State, from the hurried and imperfect manner in which milking is done, is



very large, both in the loss of the most valuable portion of the milk itself, and in the early drying up of cows. The large amount of labor now required in milking, induces many dairymen to purposely dry up their cows whenever butter gets down to forty or fifty cents per pound, which abuse would hardly be indulged

Fig. 2

in were a machine in use which would accomplish what is claimed for this invention.

The idea of milking the four teats of a cow at once with some suitable machine of simple construction, is one of the new ideas of this progressive age.

We commend to the careful attention of our agricultural friends in particular the following description of this novel and useful machine, which we copy from the New York *Artisan* of January 24th:

Figure 1 in the above engravings represents a cow-milker in operation, and Fig. 2 an enlarged view of the same. This is the invention of L. O. Colvin, of Marathon, N. Y., who has given this subject much attention, and whose father was a dairyman of great experience. His machine to all appearances is a complete success; it certainly is a mechanical triumph. Why should we not milk cows profitably with a machine as well as mow the grass, reap the grain, or stitch the cloth? Once those things were looked upon as questionable, but now they are established facts; and certainly it requires no great stretch of imagination to predict an equal triumph for the "American Cow-milker." This machine is very simple in its construction, and consists of a light iron casting which forms the body of the machine (see Fig. 2), to which is attached four rubber teat-cups to receive the four teats of the cow. The working of a small rubber diaphragm under each teat-cup produces a sudden strong remitting suction like a calf, which draws the milk and passes it into the center receiver and so out through the spout into the pail. The diaphragms are worked by one lever and the machine is held in position by the other.

The operator sits up to the cow as usual, applies the machine, works the handle back and forth, and like four calves he milks the cow; like them, also, the machine draws and stops drawing, to swallow. Since each teat-cup acts independently of the other, the three-teated cows are milked as well as any, and when cows give more milk out of some teats than others that fact does not interfere with the working of the machine or "finishing" the cow. This apparatus is readily applied to any cow (being self adjusting), and it is as easily detached. The instant the machine is not worked, it can be taken off; and while it is being applied it sustains itself, and the operator has only to work the handle. Being so natural in its application, the cows like to be milked by it; and three minutes, it is said, are sufficient to milk any cow. This cow-milker is quickly washed by pumping water through it—first cold water to rinse off the milk and then hot water to scald it, after which it is easily taken apart and set away to dry. The metal part is japanned black, the rubber work is of usual color, making a cow-milker of very neat appearance. It is small, convenient, and durable, and doubtless will receive a hearty welcome at the hands of every country-gentleman, farmer, and dairyman.

Letters Patent for this machine were secured on March 28, 1865. For further particulars address L. O Colvin, 335 Broadway, New York.

No man's character is so black but that it may be cleansed by gold, if only enough of the metal be used.

THE OPHIRVILLE, PLACER COUNTY, MINES.

Private advices from Ophirville, a point about three miles below Auburn, Placer County, speak very encouragingly of the mining prospects of that locality. Quartz mining operations there, until quite recently, have been carried on very loosely. Some time last fall several experienced miners went in there, became satisfied with regard to the value of the mines, commenced operations on a more liberal and scientific basis, and the result has been most satisfactory to all parties concerned. We gave quite a full notice of these mines in our issue of the 13th of January last. They consist of a series of fourteen east and west lodes, crossed at right angles by six others, running north and south, all varying from two to four feet in thickness, and located from one to five hundred feet apart. Two of the east and west veins carry silver, specimens from one of which, taken from the surface, are said to assay $125 per ton. Two others carry copper, showing carbonates and oxides strong, on the surface, with sulphurets coming in gradually at fifty feet in depth.

A company, known as the Ophir Tunnel Company, is now running a tunnel to cut all those veins in succession, which will be accomplished within the distance of 4,500 feet, the company to have a certain extent on both sides of their tunnel, upon each vein cut, for draining the same. Three or four mills are already in operation in this vicinity. We have a letter before us, dated at Ophirville on the 9th instant, which says, in substance, that two Danes have been digging on a small vein of quartz near the Scraggy Point Copper shaft (on one of the copper veins of the series), and upon the line of the tunnel. They had already taken out about $3,000, having pounded out $1,000 last Saturday, from 25 lbs. of quartz. The lode they were on was but two or three inches wide, and lay between slate and granite—the hanging wall of the lead being the copper croppings. The party was down about twenty feet deep. They kept their success private as long as they could; but the Tunnel Company, on whose ground they were working, drove them off as soon as they learned what they were doing.

One of the best of the lodes referred to is known as the Peter Walter Lode, some very fine specimens from which, showing large quantities of free gold, have been submitted to our inspection. The sulphurets from this mine are said to assay as high as $1,180 per ton. We understand that the tunnel property, with its twenty lodes of gold, silver, and copper, has been secured by a party of San Francisco capitalists; also the Peter Walter lead, which is a separate interest. Both of these properties will be placed in the New York market.

Crowded Out.—We have quite a number of notes in our note book, which are necessarily laid over until another week; some of which were gathered during our late trip to the mountains.

Among the great tunnels of the world is that which connects Camagli with St. Marguerite, on the road between Genoa and Chivari. It is 3,500 yards in length, and is just completed.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

NUMBER II.

BY W. A. GOODYEAR,
Civil and Mining Engineer.

I thank Mr. Randall for the compliments he has been pleased to bestow upon me, and which form so large a part of his recent witty and classic reply to my first article upon the tractory curve and the properties of grinding plates; but as neither my own scientific aequirements, nor those of the author of the Quartz Operator's Hand Book, constitute precisely the question which I had proposed to discuss, he will perhaps excuse me for leaving this portion of his article unanswered.

I will now first acknowledge and correct two errors into which I have fallen, and for which my only excuse is the fact that my former article was rapidly written last January, and that since that date I have not looked at the subject farther than simply to correct the "proof" for the printer, till my attention was again called to it by Mr. Randall's recent article.

These errors occur in that portion of my article relating to conical and curved grinding surfaces, and vitiate, of course, in certain respects the results which I obtained for such.

The first consists in decomposing, as I have done on page 162, the vertical pressure at any point of curved plates into two components, one of which is normal to the surface, and the other *parallel to the tangent of the meridian curve*. This force should be so decomposed that one of the components is normal to the surface, while the other one, lying in the plane of the meridian curve, is *horizontal*, *i. e.*, perpendicular to the axis. This horizontal component is then met and neutralized by an equal and opposite force coming from the opposite side of the axis, where a similar decomposition takes place. The second error consists in tacitly assuming that the vertical pressure per unit of superficial area, upon any portion of the curved surface, is equal to the vertical pressure per unit of area measured upon the projection of that surface on a horizontal plane, *i. e.*, on a plane perpendicular to the axis.

Having stated these errors, I will now give general formulas in which they are corrected, and which will be found to yield correct results.

Let a' represent the angle included between the axis, and the tangent to the meridian curve at the point x, y. Let P, as in my first article, represent the vertical pressure per unit of horizontal area at the circumference of the plates. Let P′ represent the vertical pressure per unit of horizontal area at the point x, y. Let P″ represent the vertical pressure per unit of superficial area at the point x, y. Let P‴ represent the normal pressure per unit of superficial area at the same point. Let s represent, as before, the length of any portion of the meridian curve. Let a represent the exterior radius of the plates, and let f represent the co-efficient of friction. The following relations then exist between these quantities:

(1) $\sin. a' = \frac{dy}{ds}$.

(2) $\text{cosec. } a' = \frac{ds}{dy}$.

(3) $P'' = P' \frac{dy}{ds}$.

(4) $P''' = P'' \frac{ds}{dy} = P'$.

(5) P = the value which P′ assumes when $y = a$.

For surfaces whose exterior radius is n, the following formulas are then general:

(6) Total vertical pressure,

$$= \int 2\pi P'' y \frac{ds}{dy} dy = \int 2\pi P' y \, dy.$$

(7) Total normal pressure,

$$= \int 2\pi P' y \frac{ds}{dy} dy.$$

(8) Total force of friction,

$$= \int 2\pi f P' y \frac{ds}{dy} dy.$$

(9) Moment of friction,

$$= \int 2\pi f P' y^2 \frac{ds}{dy} dy.$$

(10) Mechanical effect of friction in a single revolution,

$$= \int 4\pi^2 f P' y^2 \frac{ds}{dy} dy.$$

(11) Total grinding effect in a single revolution,

$$= \int 4\pi^2 P' y^2 \frac{ds}{dy} dy.$$

For complete or entire surfaces, the limits between which these integrals must be taken, are 0 and a, and for ring surfaces, the inner radius and the outer radius.

In what follows I shall assume that P is known, and is the same in all cases.

Now, when I use the phrase "vertical wear," I mean by it the thickness measured in a vertical direction of the layer of material worn from the plates by a given amount of motion, and I still maintain, and for the same reasons as in my first article, that uniformity of *vertical wear* is a condition that does not depend upon the particular *form* of the grinding surface, but is one of the necessary conditions of grinding with *solid* plates of *any* form. If this be admitted (and it seems so simple as to be almost an axiom), it follows at once that with flat plates of uniform hardness, P′ must vary inversely as y, and that in order that P′ may be constant, the hardness of the plates must vary as y, and in this article I shall assume that the same law holds for curved surfaces.

Weishach, now, expressly states that he assumes the vertical pressure to be equally distributed. The cases then which he considers are those in which the hardness varies as y. For these cases P′ is constant and equals P, and with this value of P′ it will be found that formulas (6), (9), and (10), as given above, agree with all of his results. The relative grinding effects, then, for a single revolution with entire plates, whose hardness varies as the ordinate, are as follows:

(12) for flat plates..... ,6667
(13) for conical plates..... ,7453
(14) for tractory conoidal plates..1,0000

the hight of the cone in (13) being $h = \frac{n}{2}$, and the weight of the plates being the same in all three cases. These results are given by formula (11). If, on the other hand, the plate be of uniform hardness, then P′ varies inversely as y, and is equal to $P\frac{a}{y}$. Taking this value of P′, we obtain from formula (11) the grinding effect in one revolution:

(15) for flat plates.....$2\pi^2 Pn^3$.
(16) for conical plates...$2\pi^2 Pa\sqrt{a^2+h^2}$.
(17) for tractory conoidal plates.$4\pi^2 Pa^3$.

Or, *relatively*, taking as I have done in (12), (13), and (14), $2\pi^2 Pa^3$ as the unit,

(18) for flat plates.....1,000
(19) for conical plates.....1,118
(20) for tractory conoidal plates...2,000

the weight of the plates in these three cases being the same.

The pressure P *at the circumference* is the same in all six of the above cases; but in the last three, where the hardness is uniform, the *total* pressure or weight of the plates is *twice* as great as it is in the first three cases where the hardness varies as y. If we assume the weight of the plates to be the same in all six cases, the pressure at the circumference will be only half as great in the last three cases as in the first, and the ratio of grinding effect will stand as follows:

For plates whose hardness varies as y—
(21) flat plates..... ,6667
(22) conical plates..... ,7453
(23) tractory conoidal plates....1,0000
For plates of uniform hardness—
(24) flat plates..... ,5000
(25) conical plates..... ,5590
(26) tractory conoidal plates.....1,0000

For ring plates whose outer radius is n, and whose inner radius is $\frac{a}{3}$, and *whose total weight is the same as that of the entire plates just considered*, these ratios will stand:

For plates whose hardness varies as y—
(27) flat plates..... ,7222
(28) conical plates..... ,8075
(29) tractory conoidal plates.....1,0000
For plates of uniform hardness—
(30) flat plates..... ,6667
(31) conical plates..... ,7453
(32) tractory conoidal plates.....1,0000

and for—
(33) Randall's Patent Grinding Plates..... ,7500

In my first article (page 210) I gave certain ratios for the grinding effect of ring plates, supposing the vertical pressure at the circumference to be the same in all cases, the total weights of the plates being different of course. Those ratios for the flat plates were correct under that supposition, though, as I have already stated, they were incorrect for the conical and tractory conoidal plates. The result there stated for Randall's Plates is also incorrect, for the following reason: In the calculation by which I obtained it on page 178, I committed one of Mr. Randall's "school-boy errors," in assuming that the pressure at any point of the surface of the inner ring was equal to the pressure at its outer circumference, multiplied by $\frac{a}{y}$. The former is, in fact, equal to the latter multiplied by $\frac{2a}{3y}$, and with this correction, the result which I gave as 1,4444, will be found to be 1,3333. The corrections for the other cases are simple, and are given directly by formula (11). I have now explained and corrected my errors.

Mr. Randall complains that in my first article I did not tell the whole truth, inasmuch as I did not state comparative results for plates of *equal weight*, instead of for plates having equal vertical pressures at the circumference. I have now, therefore, conformed myself to his standard in this respect, and the results in this article from (21) to (33) inclusive, are for plates whose total weight is in all cases the same, viz., $n\,Pn^2$. The vertical pressures per unit of horizontal area at the circumference, in these cases, are as follows:

For (21), (22) and (23).....P.
For (24), (25) and (26).....$\frac{1}{2}$ P.
For (27), (28) and (29).....$\frac{9}{8}$ P.
For (30), (31) and (32).....$\frac{3}{4}$ P.
For (33).....$\frac{9}{8}$ P.

By comparing the above results with Mr. Randall's recapitulation, on page 260, it will be seen that we now agree with reference, first, to the mutual ratios for entire plates of equal weight *among themselves*, and second, to the mutual ratios for ring plates of equal weight *among themselves*, but that we still disagree as to the ratio between entire plates and ring plates of the same weight. The reason of this is that in Mr. Randall's discussion, whether he knows it or not, he has *not* taken the conditions such that the *total weight* of his ring plates is the same as that of his entire plates; but he has taken his ring plates such that their total weight is equal to the weight of that portion of his entire plates which would be left if a circular portion whose radius is $\frac{a}{3}$ were removed from their center. The total weight of his ring plates is, therefore, equal to $\frac{8}{9}$ of that of his entire plates; and if his numbers for ring plates be all multiplied by $\frac{9}{8}$, the corresponding plates will then all have the same weight, and our numerical results will agree throughout.

I had supposed that in my first article I had at least made my *meaning* so clear that a mathematician could not well misunderstand it; but I find that Mr. Randall has done so, and there are in his article some flagrant misrepresentations that I cannot allow to pass unnoticed.

In speaking of the secondary curve which I discussed, he says: "Mr. Goodyear errs in premising that the wear to the plates *takes place*" (the italics are mine) "in the direction of the normal reckoned from the point of tangency." I premised no such thing. By referring to page 162, he will see that I use the words, "where this wear *would* actually take place, *if it could take place at all*," and the whole tenor of my article went to show that *such* a wear could *not* take place at all. I discussed the secondary curve, because I thought it involved in the proposition on page 103 of the Hand Book. If I have misunderstood the author upon this point, I regret it; but I submit that the man of straw was not entirely of my own creating, and that the proposition referred to, if it means anything *as there stated*, may justly be taken to involve the idea of this very wear which cannot take place, and, consequently, of the secondary curve which I discussed.

Again, on page 259, Mr. Randall says "$n\,Pa^2$ is the volume or size of the plate which Mr. Goodyear tells the public has for its grinding effect $2\pi^2 Pn^3$." I did not tell them this; but I told them (and the statement is true) that, with circular plates of equal radius, and having equal vertical pressures (P) at *the circumference*, the grinding effect of plates, whose hardness is uniform, is $2\pi^2 Pa^3$, while if the hardness vary as y, it is $\frac{4}{3}\pi^2 Pa^3$. I distinctly stated, too, (and Mr. Randall has quoted the statement, with an accompanying question that seems to me absurd, considering the clearness with which I stated the standard of comparison which I was using,) that in these two cases the *total* pressure or weight (corresponding to what Mr. Randall here calls the "volume") was greater in the one case than in the other. It is, in fact, twice as great.

Also, on page 260, Mr. Randall says: "Mr. Goodyear would show by his (figures) that a plane plate of uniform hardness will grind fifty per cent. more than a plate of the same size and *weight*" (the italics are mine) "and hardness at the circumference, and which decreases in hardness toward the center in the ratio of the decrease of the radius." This is not what I said or attempted to show. It would not be true. What I did say will be apparent by referring to my article, and I was right upon this point.

On the same page he says: "He tells us that the entire plate of any of the forms considered will grind more than the corresponding ring plate of the proportions given, which I have proven by the authorities and demonstration to be a misstatement. He tells us that the plane plate of uniform hardness will grind more than Randall's Patent Grinding Plates, which statement is doubly refuted." Two more misrepresentations of the same kind! I made no such statements for plates of equal weight. I made them only for plates having equal pressures at the circumference, and for such plates both statements are true. My comparisons throughout that article were for equal *pressures at the circumference*, and *not* for equal weights of the plates, and I said so then.

Mr. Randall's solution of the problem of plane and conical grinding plates, on page 260, if I understand it, tacitly admits the principle of the *distribution of pressure* which I have enunciated; for otherwise, his proportion, "S : V :: E : G" could not hold true for solid plates.

He is approaching the truth. He has already corrected various errors in the Hand Book relating to ring formed plates; and when in his calculations and statements of comparative results he makes his ring plates really of the same weight as his entire plates, he will be nearer right than he has been yet.

If it would not be saying too much, however, I would suggest that his demonstrations would be as clear and no less elegant if he would not confound *volume* with *pressure*. The volume of a solid of uniform density is, of course, proportional to its weight and to the total pressure produced by that weight; still, when dealing in fact with pressure instead of volume, it is just as easy to *say* "pressure," and in some cases it is less likely to lead to indistinct and, possibly, erroneous ideas. His misunderstandings and misrepresentations of my clearly-expressed meaning evidently arose, with one exception, solely from his confusion of the ideas of volume and pressure.

It will be seen from what proceeds that I now admit that differently-formed plates of equal radii, hardness, and weight produce very different amounts of grinding effect in a single revolution. The tractory conoid, however, by no means gives a maximum of grinding effect under these conditions. The expression for the grinding effect of the cone is a function of h, the hight of the cone, and by increasing h, we can increase without limit the theoretical grinding effect, while still preserving the *same weight*, etc., of the plate.

But there is another point upon which I must say a few words, though Mr. Randall does not wish it "logged into" the question, and that is *power* or *mechanical effect*.

The point which I had proposed to discuss was *not* simply the relative *amount* of grinding effect produced by plates of different forms. It was the broader question of the *relative advantages* in the grinding effect to be derived from differently-formed grinding surfaces, and into this question the element of power *necessarily* enters.

It will be seen that formula (10), which gives the mechanical effect or power consumed by the friction in a single revolution, and formula (11), which gives the grinding effect, are identical, with the exception of the coefficient of friction f, which is constant, and as these formulas are general, the law is also general, whatever be the form of the grinding surface, that the mechanical effect or power expended is *directly proportional* to the grinding effect produced.

Mr. Randall, on page 260, after first objecting to any consideration of the element of power, says: "No mention in that work (the Hand Book) is made of *power* in *connection* with *grinding effect*. It requires no demonstration to prove that it takes more *power* to reduce *ten tons* of rock than it does to reduce *one* to the same degree of fineness from the same condition at first. Any school-boy can tell us that, saying nothing of practiced miners and mechanics. What was claimed, and is claimed, and is true, is that the tractory formed pan will do very much more work than either the flat or conical pan of the same weight, and I will now add do the same amount of work at a less expense of *power*."

The Hand Book, indeed, makes no mention of power, and, *therefore*, (in addition to its other errors,) the whole character of its dis-

cession of grinding plates is calculated to lead the reader to infer that no more power is required for a single revolution with one plate than with another of the same weight and size, but which produces a different grinding effect, and hence that the advantages of differently formed plates are in the precise ratio of their grinding effects, and his reply to my article points in the same direction. If this be not a "fallacy," it is something worse—an absurdity; and if this be not the idea that the author of the Hand Book *intended* to convey, then, in honesty, he should have said so, and not have led his readers to think the contrary, by claiming increased grinding effect as an advantage *irrespective of the question of power*.

Mr. Randall may hereafter think that "any school-boy" could have told us so simple a fact in mechanics as that the amount of power expended is always equal to the total amount of effect produced if measured by the same unit, and that these two quantities are always directly proportional to each other if measured by different units. If he makes this statement, I shall hardly question its truth; but I beg that he will not couple it with a reassertion of the flat contradiction that the tractory conoidal pan "*will do the same amount of work at a less expense of power*" than other pans. No form of grinding surface will enable us to accomplish this.

I start with the premise that no peculiar advantage is gained in simply increasing the grinding effect, if the power expended to produce it must be increased *in precisely the same ratio*, and, therefore, I still deny *in toto* the *advantage* which I understand to be claimed for the tractory conoid as a grinding surface. Mr. Randall may have only *intended* to claim at first that the tractory conoidal grinder of the same size and weight *would produce a greater effect in a single revolution* than the other forms considered; but his silence in the Hand Book on the question of power; his reluctance to have this question introduced, and still more, his assertion that this pan "will do the same amount of work at a less expense of *power*," show that now, at least, he claims something more, and that on this point I am not combating a "man of straw."

The tractory conoid does produce a greater effect in a single revolution than the other forms above considered; but it does not produce so great an effect as the cone of the same weight and base will do if h be increased beyond $3a$. Neither these nor any other forms produce an increased grinding effect, except at the expense of a precisely proportional amount of power, and we can obtain *this same* result with any form by increasing the weight or size of the plates.

It will now be evident, I think, both from what I have said and from Mr. Randall's own admissions, that the Hand Book contained in principle as well as in detail sufficient errors and "fallacies" to justly subject it to criticisms as severe as any that I have made.

The errors into which I fell myself, though they affected my numerical results, *did not* affect the *main* and *important* points upon which I insisted, and upon which Mr. Randall is wrong, which are—first, uniformity of vertical wear, independent of the particular form of the surfaces; and, second, grinding effect *considered in connection with power* the only just standard of comparison. And my first assertion, that in this light the tractory conoid possesses no peculiar advantages, remains undeniably true.

Sun Francisco, May 5th, 1866.

FISHERMEN'S LEGENDS.—The fishermen round the wild headlands of Cornwall, England, have their legends, for sailors living as they do on an element full of mysteries, are proverbially superstitious. A pilot at St. Ives told Mr. Hunt a story of how one midnight, strolling on the wharf, to watch a vessel, afterward wrecked, that he had to take into Hayle, he saw a man, who refused to speak, leaning against a post. On looking closer, the pilot saw that there were pieces of seaweed and stick in his whiskers; that the flesh of his face and hands looked as if it were parboiled; and that as he walked the water 'squashed' in his shoes. The pilot was ill six months from the fright caused by this apparition. All along the Cornish coast the Phantom Ship is also believed in. Years ago, a vessel made signals of distress to the westward of St. Ives' Head. On reaching the ship, which was schooner rigged, and had a light over her bows, one of the sailors made a grasp at her bulwarks, in order to leap on board; but his hands met nothing solid, and he fell back into the boat as the ship and lights disappeared. The next morning a London vessel was wrecked at Gwithian, and all on board perished.

A BILL has been introduced into the House of Representatives, providing for the establishment of a government melting and assaying office in Salt Lake City.

ADMIT no guest into your soul that the faithful watch-dog in your bosom barks at.

[Written for the Mining and Scientific Press.]

From Mariposa County.

BY OUR SPECIAL CORRESPONDENT.

[Continued from page 274.]

Tho "dropping clouds hang low" to-day, and I find traveling rather disagreeable; but as my notes for the past ten days contain some points of interest, I think that I shall be able to employ an hour or two both pleasantly and profitably in writing them up for your columns.

On the day following my last writing I bid an early good-bye to my friend Snyder and his family, and before noon was in Mariposa, stopping by the way for a short chat with Mr. Homer, at Lovejoy's mill, twelve miles above town. This mill produces most of the lumber used in the vicinity of Mariposa, and also supplies a portion of the Merced River country. It is a steam mill, 24-horse power, with two circular saws, one of sixty, and the other forty-eight inches diameter. It is capable of sawing 8,000 feet of inch lumber daily, but is only kept running during the summer months, as the demand is not sufficient to keep it constantly employed.

After an hour or two spent in Mariposa, looking up old acquaintances and resting from my ride, I rode out to Bridgport to pay a visit to the mine and mill of

THE EUREKA QUARTZ COMPANY,

Four and a half miles southwest of Mariposa. The works are at present in charge of Mr. J. B. Bruce, at whose invitation I spent the night with him, and in the evening visited the mines. The company are working the veins, located in a granite formation, just outside the northern boundary of the Mariposa estate. Messrs. Washburn and Bruce have been able to obtain a lease from the Mariposa Company on favorable terms, and are working profitably on both sides of the line. The vein for which the mill was originally built is known as the Catron vein, from the name of its former owner. Its strike is north and south, with a dip to the east of fifty three degrees. The principal shaft is about 100 feet deep along the inclination of the vein, which in the works connected with this shaft will average nearly two feet in thickness, and has paid, as I was informed by Mr. Bruce, from $25 to $50 per ton.

From what is called the Dobbin shaft on a spur of this vein, some very fine rock has been taken, paying as I was informed an average of $50 per ton. The engine, of about 4-horse power, used for hoisting the rock from the principal shaft is run by a Chinaman, one of the former owners of the mine, who shows all the intelligence and thoughtfulness of a first class engineer. Chinese laborers are employed in almost every department of the work about this mine, both above ground and below, and Mr. Bruce expresses himself well satisfied with their services. The other vein lies about 400 feet east of the Catron, and has not been worked by the present owners. The old works extend to a depth of sixty-five feet, throughout which the vein appears to be about two feet thick, and very well defined and regular. Rock taken from this is said to have paid $16 per ton. The mill adjoins the hoisting works of the main shaft. It consists of a battery of eight stamps driven by a steam engine of 16-horse power. Amalgamation is performed in the battery, and on copper plates below, no amalgamating or concentrating machinery having been introduced.

On my return to Mariposa, I met Mr. Gus. Hite, from Hite's Cove, who had been in town for a few days, and was about starting on his return, accompanied by a party of Mariposans, among whom were Mr. Murphy, of Murphy & Brogan, and Mr. Swancy of the *Gazette*. At the store of Messrs. McDermott & Co., I was shown a map of the famous Hite & Wynant's mine, lately made by the County Surveyor. The vein has been worked to within twenty-eight feet of the east line of the Hite claims and at this point, it is eight and a half feet wide, and pays over $80 per ton. As Messrs. McDermott & Co., own the east extension of this vein, they are naturally well pleased with these developments.

In the afternoon I rode down to Bear Valley, where I spent the Sabbath, and on Monday morning paid a visit to the Pine Tree mine, and the Benton mill. The Pine Tree mine is paying at present better than at any previous time, the vein in the lower levels being about twelve feet wide, and paying according to the estimate of the superintendent, Mr. Dolan, about $15 per ton. It has been opened within the past year by a new tunnel 140 feet below the old works, and under the able and economical management of Mr. D. promises soon to become the most valuable mine on the Mariposa estate.

At the Benton mills, Messrs. Brannagim and Hall of San Francisco, are engaged in putting up machinery for the Ryerson amalgamating process, by which they have heretofore worked some of the Pine Tree rock with good success. The rock is first crushed between a pair of Cornish rollers, after which it is reduced to powder in a cylinder filled with two-ounce cast-iron balls, before being subjected to the superheated steam and quicksilver in the amalgamator. They expect to be ready to start the works in a short time. Through the kindness of Mr. Perian, I was shown through the mills, and spent a few hours very agreeably. One of Prater's Concentrators is now in use in the mill, of which Mr. P. speaks in the highest terms, but hesitates about introducing more until the fate of the Ryerson process is decided.

After leaving the Benton mills, I set out for the copper mines of the Chowchilla, arriving at Bennett's on Mariposa Creek, twenty miles below Hornitos, on Tuesday evening. The principal copper mines are located in a district of country lying in Mariposa and Fresno counties, and extending north and south about fourteen miles, with a width of three or four miles from east to west, the formation being a siliceous mica slate, or altered sandstone, in some of which are imbedded beautiful crystals of feldspar, of great curiosity and beauty. But few of the claims have been opened to any great depth, but the surface ores of many are very rich. These are principally carbonates and silicates with a small admixture of red oxides, and in some cases large masses of gray copper. But little ore has been shipped in its natural state from these mines, the long distance and scarcity of transportation, and the irregular character of most of the ores interfering greatly with the profit of shipping. There are two smelting furnaces in the district, which have been doing a very good business working the carbonates and silicates, which furnish from eight to twenty-five per cent. of pig copper, which assays from eighty to ninety-six per cent.

HENRY & COMPANY,

At James' Ranch, have a blast furnace of the pattern described in Dr. DeHeirry's articles on "Copper Smelting in California," with which they are able to reduce sixteen tons of silicates or carbonates daily. The ores worked thus far have averaged about twelve and one-half per cent., and about twelve tons of pig copper have been shipped. The works consume about five or six tons of charcoal daily, costing $17.50 per ton, and employ eleven men, making the cost of smelting copper from twelve per cent. carbonates, from $75 to $85 per ton. The furnace is employed in smelting ores from the Lone Tree and Green Mountain leads. As yet, no permanent vein has been discovered at either place, though the prospects, especially of the Lone Tree, are very good, though it is probable that the vein will not concentrate until a great depth is reached. The general superintendent of the works is Mr. Wm. Nelson, of Merced Falls, and the furnace is under the immediate charge of Mr. P. Desormaux, formerly of Meader & Co.'s smelting works at Copperopolis.

At Buchanan Hollow, six miles below James' Ranch, in the upper part of Fresno county are situated the works of

THE BUCHANAN COMPANY.

The furnace here was erected by Messrs. Haskell and Philips. It is a simple cupola, such as is used in foundries for melting iron, but after a considerable amount of unsuccessful experimenting, has at last been brought to work to the satisfaction of its owners. Its capacity is about the same as that of Henry & Co.'s, and the amount of coal consumed daily about the same, though it has been run more constantly, and has, as I was informed by Mr. Palmer, one of the smelters, produced about thirty tons of copper. At the time of my visit the furnace was idle for want of coal. Mr. Haskell was in San Francisco, and Mr. Philips had lately taken to himself a wife, consequently I did not see either of them.

About six miles south of Buchanan Hollow is

THE BACHMAN CLAIM,

Owned by Messrs. Bachman, Winchell, Leach, Ashman and others, principally of Millerton. The company own 680 acres of land by United States patent, which includes their mine. The course of the vein is nearly north and south, with a slight dip to the eastward, probably about thirty-five degrees. The shaft is about fifty-six feet deep, showing in the bottom a well defined vein, nine or ten feet wide, five feet of which contains much black oxide, and assays from eighteen to twenty-seven per cent. copper. Some of the carbonates from the surface were smelted by Messrs. Haskell and Philips, and yielded twenty-five per cent. of copper. As far as prospected this is one of the best veins I have ever seen in the State.

Another very promising vein is that of

GREEN & COMPANY,

Located two miles north of James' Ranch. The claim is 1,750 feet on what is known as the Dozer, a vein or series of veins which has been traced through the district for a distance of nine or ten miles in a northwest and southeast direction, and showing fine indications of copper throughout its whole extent. Green & Co. have sunk a shaft on their vein to a depth of eighty-five feet, showing a vein varying in width from one to six feet, the ore being generally very rich. In the bottom the vein is about four feet in width, about two feet of which is solid gray ore.

D.

Bear Valley, April 30, 1866.

CHEERFULNESS IN THE HOUSEHOLD.

Children are naturally cheerful. They hunger perpetually for new sources of enjoyment—of cheerfulness. A child needs smiles as much as flowers need sunshine. A silent household is as unwelcome and unsuitable to a child, as the shady side of a house is to flowers. There is no question but that too much reliance is placed upon Solomon's rod; and that that great institution is quite too often called into requisition to atone for the short-comings of parents and teachers. It is greatly to be feared that the cases are not rare where smiles or pleasant words would not serve a much better purpose. Parents who are habitually silent, or who seldom take an interest in the little pastimes which interest their children, need not expect that everything will go on smoothly and cheerfully in the household.

If a thing or a place pleases a child, he is apt to seek and love it; if it displeases he will most assuredly be inclined to avoid it. If parents are habitually silent, if their faces are always sour, their looks harsh and fault-finding, it is but natural to expect the children will seek to escape from such a presence whenever they can—that they will talk pontily about "being shut up there," and that they will often be guilty of acts which seem to call for the chastening rod. Many a child goes astray not by reason of any evil intent or desire, nor because of the lack of formal Christian virtue and example at home; but because of the want of kindness and sociability on the part of parents—the lack of sunshine and cheerfulness in the household. To the calm observer of such scenes, there is no difficulty in placing the responsibility where it belongs.

How often do we see parents who are "the life of the company" when they are abroad or when they are entertaining friends at home; yet when they sit down in their own household, silence and moroseness prevail. Is it any wonder that such parents should find their children disobedient and wayward? It would be most unreasonable to expect anything else.

Let parents exert themselves to be cheerful at home; let them look happy, always, in the presence of their children. Let them talk to them, take an interest in their little games, in their troubles and in their joys; and do so in a way to make them happy. Let them talk freely with the older ones, and so gain their confidence that in all their little affairs of boyhood or girlhood they can come freely to their parents for advice and consultation. Such children will learn to love their homes, and will seldom, if ever, be found engaging in matters of evil tendency or even doubtful propriety.

It is far better and more conducive to our own happiness, as parents, to please our children and make *them* happy, than to endeavor to charm strangers or amuse friends. Make your homes happy and cheerful—light them up with pleasant and instructive conversation, and you will never have occasion to mourn over the ingratitude or waywardness of your children.

THE Pacific Ocean covers seventy-eight millions of miles; the Atlantic twenty-five millions.

TRY to excel in all things.

SALES OF THE WEEK
BY THE S. F. STOCK & EXCHANGE BOARD

Saturday, May 5.

300 shs Ophir at 525@335 per foot, b 30.
204 shs Ophir at 505@516 per foot.
96 shs Ophir at 510@515 per foot, s 3.
24 shs Ophir at 515 per foot, b 5.
50 shs Ophir at 515 per foot, b 3.
103 shs Ophir at 510@512½ per foot, s 30.
10 shs Chollar Potosi at 313@314 per ft, s 30.
5 shs Chollar-Potosi at 325 per foot, b 30.
5 shs Chollar-Potosi at 320 per foot, b 15.
5 shs Chollar-Potosi at 315 per ft.
8 shs Yellow Jacket at 710@700 per ft.
2 shs Yellow Jacket at 705 per foot, b 3.
8 shs Yellow Jacket at 725@730 per ft, b 30.
1 sh Yellow Jacket at 705 per foot, s 3.
1 sh Yellow Jacket at 710 per foot, s 30.
12 shs Alpha, G. H., at 310@320 per foot.
1 sh Belcher at 320 per foot.
2 shs Hale & Norcross at 960 per foot, b 30.
55 shs Overman at 76 per ft.
50 shs Overman at 76, s 3.
30 shs Overman at 79 per ft, b 30.
10 shs Overman at 76 per ft, s 30.
10 shs Imperial at 140@139 per share.
5 shs Imperial at 138½ per share, s 30.
10 shs Imperial at 140 per share, s 3.
40 shs Confidence at 15@17 per sh, ass unp'd
2 shs Empire M & M Co. at 180 per sh. s 3.
1 sh Empire M & M Co. at 182½ per sh.
10 shs Spring Valley W W Co at 68 per ct.
52 shs N B & Mission R R at 60 per share.
Amount of sales.....$ 69,228 00

Monday, May 7.

84 shs Ophir at 515@517½ per foot.
60 shs Ophir at 515@525 per foot, s 3.
12 shs Ophir at 515 per foot, s 10.
72 shs Ophir at 530@555 per foot, b 30.
24 shs Ophir at 520@530 per foot, s 30.
14 shs Chollar-Potosi at 320 per foot.
28 shs Hale & Norcross at 925@942½ per ft.
2 shs Hale & Norcross at 970 per foot, h 30.
12 shs Yellow Jacket at 730@735 per ft. h 30.
1 sh Yellow Jacket at 712½ per foot, s 10.
17 shs Yellow Jacket at 710@720 per ft. s 3.
1 sh Yellow Jacket at 715 per foot, s 15.
7 shs Belcher at 325@340 per foot.
2 shs Belcher at 330 per foot, h 3.
5 shs Belcher at 345@355 per foot, b 30.
1 sh Belcher at 335 per foot, s 3.
2 shs Belcher at 340 per foot, b 5.
25 shs Imperial at 137@135 per share.
10 shs Imperial at 137 per share, h 5.
1 sh Bullion at 82 per share.
10 shs Overman at 74 per foot, h 10.
15 shs Overman at 74 per ft.
5 shs Overman at 77½ b 3.
5 shs Belcher at 350@345 per foot.

AFTERNOON SESSION.

1 sh Belcher at 345 per foot, h 3.
3 shs Belcher at 355@352½ per sh. b 30.
2 shs Belcher at 345 per foot, s 3.
2 shs Belcher at 340 per foot, s 30.
132 shs Ophir at 540@527½ per foot.
12 shs Ophir at 530 per foot, s 5.
12 shs Ophir at 525 per foot, s 30.
12 shs Hale & Norcross at 930@910 per ft.
1 sh Yellow Jacket at 712 per foot.
6 shs Yellow Jacket at 710@715 per foot, s 30
2 shs Yellow Jacket at 715@712 per ft, h 3.
40 shs Daney at 10 per foot.
20 shs Imperial at 139 per share.
32 shs Imperial at 142@138 per share, s 3.
25 shs Imperial at 140 per share, h 3.
15 shs Imperial at 140 per share, b 30.
5 shs Imperial at 138 per share, s 10.
15 shs Imperial at 138 per share, h 5.
35 shs Overman at 76@77½ per ft.
25 shs Overman at 77 per foot, s 3.
40 shs Overman at 79@81 per foot, b 30.
10 shs Overman at 77½@77 per foot, b 10.
10 shs Overman at 76 per ft, 3 30.
Amount of sales..... ...$169,648 00

Tuesday, May 8.

168 shs Ophir at 515@523¾ per foot.
12 shs Ophir at 520 per foot, s 10.
72 shs Ophir at 516@5:7 per foot, s 30.
12 shs Ophir at 515 per foot, s 20.
60 shs Ophir at 540@512½ per foot, b 30.
36 shs Ophir at 520 per foot, h 3.
24 shs Ophir at 520 per foot, s 3.
72 shs Ophir at 525 per foot. b 5.
15 shs Chollar-Potosi at 320@323 per foot.
4 shs Belcher at 340@345 per foot
6 shs Belcher at 345@347½ per foot, b 3.
7 shs Yellow Jacket at 710@716 per foot.
12 shs Hale & Norcross at 960@957½ per ft.
4 shs Hale & Norcross at 950 per foot, s 30.
2 shs Hale & Norcross at 960 per ft, b 3.
2 shs Savage at 1040 per foot, b 3.
4 shs Crown Point at 1260 per foot, s 60.
28 shs Imperial at 140@137 per share.
10 shs Imperial at 140 per share, b 30.
25 shs Imperial at 138@137½ per share, h 5.
5 shs Imperial at 137½ per share, s 3.
5 shs Imperial at 137 per share, s 10.
5 shs Imperial at 135 per share, s 30.
10 shs Overman at 75@76½ per foot.
5 shs Overman at 76 per foot, h 10.
10 shs Confidence at 40 per share.
10 shs Confidence at 40 per share, s 3.
10 shs Confidence at 38 per share, s 30.

AFTERNOON SESSION.

7 shs Chollar-Potosi at 323 per foot.
5 shs Chollar-Potosi at 324 per foot.
1 sh Yellow Jacket at 710 per foot, s 3.
11 shs Yellow Jacket at 730 per foot, h 30.
1 sh Yellow Jacket at 712 per foot.
2 shs Yellow Jacket at 715 per foot.
1 sh Yellow Jacket at 720 per foot.
1 sh Yellow Jacket at 718 per foot.
1 sh Yellow Jacket at 719 per foot.
1 sh Yellow Jacket at 725 per foot, h 5.
36 shs Ophir at 525 per foot.
12 shs Ophir at 526¾ per foot.
12 shs Ophir at 525 per foot, s 30.
4 shs Hale & Norcross at 960 per foot, h 30.
4 shs Alpha, G. H. at 320 per foot.
4 shs Alpha, G H, at 320 per foot, s 30.
15 shs Overman at 80 per foot b 30.
10 shs Overman at 77½ per ft, h 10.
3 shs Overman at 77½ per ft.
35 shs Overman at 77 per ft.
10 shs Overman at 78 per foot, b 10.
5 shs Overman at 76½ per ft.
5 shs Imperial at 137 per share.
5 shs Imperial at 136½ per share,
30 shs Imperial at 134 per share.
25 shs Imperial at 134½ per share, b 3.
55 shs Imperial at 134 per share, b 3.
5 shs Imperial at 134½ per share, b 5.
20 shs Imperial at 134½ per share.
5 shs Confidence at 39 per share.
Amount of sales.....$102,140 00

Wednesday, May 9.

24 shs Ophir at 530 per foot, s 30.
36 shs Ophir at 535 per foot.
96 shs Ophir at 532¼ per foot, s 3.
12 shs Ophir at 537½ per foot.
12 shs Ophir at 535 per foot, s 30.
168 shs Ophir at 545@560 per foot.
36 shs Ophir at 560 per foot, s 30.
24 shs Ophir at 560 per foot. s 3.
24 shs Ophir at 555 per foot, s 30.
108 shs Ophir at 565 per foot.
24 shs Ophir at 689 per foot, b 30.
2 shs Chollar-Potosi at 325 per foot.
2 shs Chollar-Potosi at 327½ per foot, c.
21 shs Chollar-Potosi at at 330@335 per ft.
10 shs Chollar-Potosi at 335 per foot, b 3.
22 shs Chollar-Potosi at 337½@346 pr ft, b 30.
14 shs Chollar-Potosi at 336@337 per foot.
1 sh Yellow Jacket at 717½ per foot, s 3.
6 shs Yellow Jacket at 720 per foot.
4 shs Yellow Jacket at 740 per foot, b 30.
1 sh Yellow Jacket at 720 per foot, c.
1 sh Yellow Jacket at 720 per foot, s 3.
5 shs Belcher at 340 per foot, s 30.
4 shs Hale & Norcross at 960 per foot, s 3.
2 shs Hale & Norcross at 960 per foot.
5 shs Segregated Belcher at 14 per sh.
1 sh Empire M & M Co at 180 per share.
20 shs Overman at 79 per share.
10 shs Overman at 79 per share, b 3
40 shs Overman at 81@78 per share, b 30.
5 shs Overman at 77½ per foot, s 30.
10 shs Overman at 78 per ft, b 3.
10 shs Overman at 77½ per foot, s 10.
32 shs Overman at 77@77½ per ft.
5 shs Imperial at 134 per share, s 3.
5 shs Imperial at 134½ per share, s 3.
25 shs Imperial at 135 per share. s 3.
5 shs Imperial at 135 per share, s 5.
15 shs Imperial at 136 per share, b 5.
15 shs Imperial at 136 per share, c.
4 shs Imperial at 137 per share, b 5.
10 shs Imperial at 135 per share, s 30.
25 shs Imperial at 136 per share.
10 shs Sierra Nevada at 8½ per share.
10 shs Sierra Nevada at 8 per share.
6 shs Cal Steam Nav Co at 60 per ct.
30 shs Spring Valley Water at 67½ per ct.
50 shs Fireman's Fund at 120 per cent.

AFTERNOON SESSION.

1 sh Yellow Jacket at 730 per ft
3 shs Yellow Jacket at 740 per foot.
1 sh Yellow Jacket at 740 per foot, s 10.
2 shs Yellow Jacket at 750 per foot.
4 shs Yellow Jacket at 748 per foot.
5 shs Belcher at 340 per foot.
9 shs Belcher at 345 per foot.
4 shs Belcher at 343 per foot.
2 shs Belcher at 346 per foot.
10 shs Belcher at 350 per foot, b 3.
1 sh Belcher at 347½ per foot.
25 shs Chollar-Potosi at 360@365 per foot.
12 shs Chollar-Potosi at 365 per foot, h 3.
1 sh Chollar-Potosi at 360 per foot, s 30.
3 shs Chollar-Potosi at 362 per foot.
1 sh Chollar-Potosi at 364, b 5.
1 sh Chollar-Potosi at 361 pr ft
1 sh Chollar-Potosi at 360 per foot, b 3.
2 shs Hale & Norcross at 960 per foot. s 3.
24 shs Ophir at 585 per foot, s 15.
12 shs Ophir at 600 pr ft, b 30.
24 shs Ophir at 580 per foot, s 30.
60 shs Ophir at 580 per foot, s 3.
60 shs Ophir at 585 per foot, s 15.
12 shs Ophir at 580 per foot, b 14.
12 shs Ophir at 575 per foot.
5 shs Bullion at 95 per share.
5 shs Bullion at 110 per share, b 30.
20 shs Overman at 78 per share.
5 shs Overman at 81 per share, b 30.
10 shs Overman at 78½ per share.
11 sh Imperial at 136 per share.
5 shs Segregated Belcher at 14 per sh.
Amount of sales.....$136,989 00

Thursday, May 10.

24 shs Ophir at 530 per foot, s 30.
12 shs Ophir at 525 per foot.
261 shs Ophir at 520@535 per foot, s 30.
60 shs Ophir at 530 per ft.
60 shs Ophir at 530 per foot, h 5.
36 shs Ophir at 530 per foot, c.
72 shs Ophir at 540 per foot, b 15.
48 shs Ophir at 533@537½ per foot, c.
36 shs Ophir at 540@537½ per foot.
12 shs Ophir at 534 per foot, s 10.
12 shs Ophir at 537 per foot.
108 shs Ophir at 542½ per foot, h 15.
24 shs Ophir at 540 per foot, b 10.
60 shs Ophir at 535 per foot, s 3.
60 shs Ophir at 535 per foot, s 5.
4 shs Chollar-Potosi at 335 per foot.
5 shs Chollar-Potosi at 325 per foot.
1 shs Chollar-Potosi at 322½ per foot.
13 shs Chollar-Potosi at 320 per foot,
10 shs Chollar-Potosi at 330 per foot, b 30.
10 sh Chollar-Potosi at 320 per foot, b 5.
10 shs Chollar-Potosi at 315 per foot, s 3.
4 shs Could & Curry at 900 per foot, b 5.
4 shs Could & Curry at 890 per foot.
1 shs Belcher at 312½ per foot, b 15.
1 sh Belcher at 340 per foot.
21 shs Yellow Jacket at 740@712½ per ft.
14 shs Yellow Jacket at 740@730 per ft, b 30
1 sh Yellow Jacket at 740 per foot, h 5.
2 shs Yellow Jacket at 7:0@717½ pr ft, s 10
3 shs Yellow Jacket at 715 per foot, s 30.
1 shs Yellow Jacket at 717½ per foot, b 5.
4 shs Crown Point at 1350 per foot.
15 shs Imperial at 125 per share, s 3.
5 shs Imperial at 130 per share, b 30.
20 shs Bullion at 90@95 per share.
10 shs Bullion at 95 per share, b 30.
20 shs Spring Valley Water Co at 67½ p ct
5 shs Cal Steam Nav Co at 63 per cent, s 3.
3 shs Cal. Steam Nav. Co. at 63 p ct, b 3.

AFTERNOON SESSION.

1 sh Yellow Jacket at 720 per foot.
9 shs Yellow Jacket at 715 per ft.
8 shs Yellow Jacket at 740 per foot, h 30.
5 shs Yellow Jacket at 712½ pr ft.
1 sh Yellow Jacket at 710 per foot, s 30.
1 shs Yellow Jacket at 712½ per foot, s 3.
1 sh Yellow Jacket at 730 per ft, b 30
30 shs Chollar-Potosi at 320 per foot, b 5.
10 shs Chollar-Potosi at 325 per foot, b 5.
3 shs Chollar-Potosi at 322½ per foot.
1 sh Savage at 1020 per foot.
1 sh Savage at 1000 per foot.
1 sh Savage at 1010 per foot.
7 shs Belcher at 325 per foot.
2 shs Belcher at 330 per foot.
2 shs Belcher at 325 per foot, s 30.
2 shs Belcher at 340 per foot, b 30.
2 shs Belcher at 330 per foot, b 3.
2 shs Belcher at 327½ per foot.
4 shs Crown Point at 1300 per foot, s 60.
4 shs Crown Point at 1350 per foot.
24 shs Ophir at 530 per foot, s 3.
36 shs Ophir at 530 per foot.
12 shs Ophir at 530 per foot, b 5.
12 shs Ophir at 535 per foot, b 10.
20 shs Sierra Nevada at 8½ per share.
50 shs Bullion at 80 per share.
5 shs Bullion at 82 per share.
25 shs Overman at 80 per foot, b 10.
35 shs Overman at 79 per sh.
10 shs Overman at 81 per share, b 20.
5 shs Overman at 79½.
5 shs Imperial at 126 per share.
5 shs Imperial at 126 per share, b 3.
5 shs Cal Steam Nav Co at 63 per cent, s 10
Amount of sales.....$148,641 00

Friday, May 11.

48 shs Ophir at 540@537½ per foot.
12 shs Ophir at 545 per foot, h 30.
7 shs Chollar-Potosi at 322½@325 per foot.
5 shs Chollar-Potosi at 324 per foot, s 3.
50 shs Imperial at 130@132½ per share.
25 shs Imperial at 129 per share, s 30.
20 shs Imperial at 129@128 per share.
30 shs Imperial at 129@128 per sh, h 5.
8 shs Yellow Jacket at 705 per foot.
7 shs Yellow Jacket at 720@725 per ft, h 30.
1 shs Yellow Jacket at 700 per foot, s 30.
45 shs Overmau at 79½@80 per share.
5 shs Overman at 82½, b 30.
65 shs Confidence at 39@36 per share.
8 shs Belcher at 322½@325 per foot, s 3.
6 shs Belcher at 335@337½ per foot, b 30.
2 shs Belcher at 325 per foot, b 5.
5 shs Cal Steam Nav Co at 63 per ct.
$15,100 U. S. 7-30 Bonds, June issue, 82½ pr ct
2 shs Hale & Norcross at 960 per sh, s 30.
2 shs Hale & Norcross at 965 per foot.
Amount of sales.....$ 84,320 00

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, May 12, 1866.

Little or no change is perceptible in the condition of the Money Market, save that a further accumulation of capital may be noted, together with occasional concessions in rates of interest to certain borrowers. Money is thought to be rather more plentiful than for some time past, and is likely to remain so the ensuing season. Discounts are made in bank at 1@1¼ ₱ cent. per month, and in the open market, upon first-class securities, loans are effected at 9@12 ₱ cent. per annum.

We learn that at a meeting of the stockholders of the Bank of California, held on Saturday last in pursuance of public notice, it was unanimously resolved to increase the capital stock of that institution to $5,000,000. We are also informed that some modification of the by-laws was made with reference to the sale of its stock. Of the new stock, $2,000,000 is to be issued at a premium of 25 ₱ cent, and $1,000,000 stock will be given to the old stockholders, out of the surplus accumulations of the Bank since its incorporation.

Receipts of Treasure from domestic sources, since the date of our last reference, amounted to $900.000, and the Branch Mint in this city, during the same period, has taken for coinage about $300,000.

Bullion met with no especial enquiry for Thursday's Steamer, and sales of Gold bars were made at 840@850. Silver is ruling at ¾@1 ₱ cent. premium.

Currency Bills on the Atlantic are offered at 23 ₱ cent. premium on gold. Telegraphic Transfers are made at 2¾ ₱ cent. premium ; and Sight Drafts, payable in coin, are selling at 1½@1¾ ₱ cent. premium. Sterling Exchange may be quoted at 48@48 ½d, for best Banker's Bills ; Commercial do, 49¼@49½d.

Legal Tender Notes are dull and inactive at 78¾@79c. Our latest telegraphic advices from the East, quote gold in New York on the 9th inst., at 128.

A very considerable advance has taken place recently in San Francisco City and County 7 ₱ cent. Bonds of 1864, and the following sales are reported : $33.000 at 77½c, $65,000 at 81@83¼c, and $20,000 at 82½@84c. Some $40,000 7's of 1865, were also sold at 85c, adding interest since May 1st.

City Stocks continue to be sought for at higher prices. California Steam Navigation was dealt in at 60@63 ₱ cent. ; Spring Valley Water at $67½, ex-dividend ; Fireman's Fund at $120, and North Beach and Mission at $60. San Francisco Gas is inquired for at $108 ; State Telegraph at $29 ; Pacific Insurance at $178, and Union Insurance at $120.

The Mining Share Market has shown less animation this week, but most stocks are higher than at the close of last week. The product of different mines is well kept up, and the aggregate yield of bullion for the current month will probably exceed that of April. If we may except one or two claims, the tenor of advices from Nevada is rather more favorable respecting recent developments.

Crown Point is strongly held, and trifling sales were made at $1,250 seller 60, and $1,350 cash, closing at $1,350 asked. Receipts of bullion last month, amounted to $116,516.23 from 3,125 tons of ore—an average of $37.27 ₱ ton. Of this amount, 1,155 tons were crushed at the company's two mills. During the week ending May 4th, 749 tons were extracted. The main shaft is down 102 feet below the 3d level. The suit of C. L. Low *vs.* this Company, for 56 feet of stock, resulted in favor of the plaintiff. A dividend of $80 ₱ foot was declared on Thursday last, for the month of April, leaving some $45,000 in the treasury of the company.

Savage fell from $1,040 to $1,000, and is now held at $1,030. During the week ending May 5th, 630 tons of ore were hoisted to the surface, as follows : 30 tons first-class, 373 tons second-class, and 227 tons third-class. The increased production comes from the 6th level, the lowest floor of which, north and south, continues to look well. The first floor is also getting into good ore. In consequence of an apprehended difficulty in overcoming any very considerable flow of water, without the aid of pumps, several works of exploration, projected a short time since, will not be commenced until the shaft reaches the 7th level. The two southern compartments of the Curtis shaft were sunk 20 feet last week, and the main shaft is now down some 35 feet from the 6th station.

Gould & Curry rose from $850 to $900, then sold at $890, and closed at $930 asked. The large flow of water met with recently in the south drift of the 4th station (825 feet from the surface), has been kept well under control, and it is now thought that the body of ore found above in the 2d station last February (150 feet south of the D street shaft), can soon be reached. The company have now at their credit some $70,000 ; all liabilities, both here and in Nevada, being paid, and but for the desire to retain a considerable surplus, in view of the extensive explorations in progress, and the probable deterioration of the upper portion of the mine, a dividend would at once be declared.

Hale & Norcross advanced from $925 to $970, buyer 30 ; dropped to $930, rallied to $960, and sold yesterday at $960@965. The receipts of bullion last month exceeded $62,000 from some 1,800 tons of ore. This company pay $15 ₱ ton for the reduction of their ores, and exact 65 ₱ cent. of the assay value. The incline from the 7th level is down 100 feet, and the mine is looking as well as formerly. A dividend of $50 ₱ foot was declared on the 10th inst., payable on the 15th.

Yellow Jacket has been actively dealt in, and some 220 feet were sold, advancing from $700 to $750, receding to $710, and selling yesterday at $705@$720. No official reports from this mine have been received in this city since the 25th ult., and we are therefore without authentic advices as to the aggregate product of ore last month, or the average yield ₱ ton. This information, together with the disbursements of the company for the month of April, have been sought, in vain for a week past, by a number of stockholders, and, without wishing to reflect upon the management in Nevada, we think it is proper to advert to such official tardiness.

Ophir has been less active this week, but some 330 feet were sold, receding from $525 to $505, advancing to $540, dropping to $515, rallying to $585, declining to $530, and selling yesterday at $537½@550. Advices from this claim are somewhat conflicting ; but in the main rather more favorable than last week. In running north upon the different floors of the 9th gallery, the body of ore shows an unmistakable deterioration in that direction, but in working south (to the 5th floor) larger deposits of ore have been disclosed. From that level 35 to 40 tons of ore are now daily taken, the better portion of which, treated at the Reduction Works and mixed with Gould & Curry tailings, is yielding about $100 per ton. The lower grade of ores, from different portions of the mine, are yielding about $30 per ton, at the Atlas & Woodworth mills. Product of bullion since 1st inst., including shipments in transitu, exceed $34,000.

Chollar-Potosi was in much better favor early in the week, advancing from $315 to $365, then declining to $315, rallying to $322½, and selling yesterday at $322½@330. Official advices continue meager and void of much interest. The upper stope of the Bajazette Ground is said to show some improvement, and the New Santa Fe station is also thought to look more promising. During the week ending May 4th, 814 tons of ore were sent to custom mills. The drift from the 1st station—new shaft—is in some 325 feet.

Belcher has been dealt in within a range of 325@350, closing at $332½@$335. Alpha is dull and inactive, and small sales were made at $310@320, closing at $320 asked. Empire Mill met with trifling sales at $180@182½.

Imperial fell from $140 to $135, rallied to $142, then sold at $125 @126, ex-dividend of $10 per share paid 10th inst., and changed hands at the close at $127@$126. The first clean up this month of the Rock Point Mill amounted to $13,965.

Overman rose from $74 to $80, and then sold at $$79½@$82½. Bullion rose from $95 to $110, buyer 30, receded to $82, and sold yesterday at $82. Confidence sold at $15, then at $40 (assessment delinquent), closing at $39@36.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment: Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE
Assurance, Monterey co, Cal, 25c			May 11—May 29*
Alpha, Gold Hill, $50			May 25—June 25
Adams' Petroleum, $5			April 30—May 19
Batopilas, Chihuaha, Mex., 25c			May 10—May 28*
Belcher, $60			April 30—May 30
Belcher, Baldwin & Abernathie Co, $20			April 30—May 30
Bullion			$10 00
Barreieros, Sonalos, Mex., $5			May 10—May 28
Bunker Hill, El Dorado co., $1			May 23—June 11
Capitola, Santa Clara co., Cal., 10c			June 12—July 2*
Cosala, $1			April 26—May 12*
Chipioneа, Sonora, Mex., $5			April 28—May 12
Confidence, Storey co., Nev., $25			May 4—May 18
Capitola			Meeting April 30
Cole, Silver, $1			June 11—July 5
Crown Point			Annual Meeting June 4
Crown Point			Dividend
Dios Padre, Alamos, Mex., $3			Juno 5—Jane 23*
Dancy, 50c			May 12—June 9
Evoca Consolidated Copper			Annual meeting May 24*
Evoca Cons. Cop., Del Norte co., Cal., 25c			June 6—July 1*
Exchequer, $2			April 30—May 16
Geo. Washington, Alpine co., Cal., $1.00			June 9—June 26*
Great Basin, Humboldt co., Nev., 9c			June 12—July 2*
Green, Storey co., Nev			Annual Meeting June 6*
Gold Hill, Storey co., Nev., $1			June 15—July 1C*
Hanscom, Copper, Del Norte co., 15c			May 1—May 21*
I. X. L., $1.50			May 17—June 7*
Imperial			Dividend
Independent, Coal			Meeting June 1
Kentucky, $1			May 8—May 30*
Keokuk, Contra Costa co., Cal., 10c			May 18—June 4*
Lady Franklin, Alpine co., Cal., 25c			May 7—June 5*
Lady Bell, Low Divide, Cal			June 9—June 28*
La Victoire, $1			May 4—May 21
Mina Rica de las Flores, $1			June 19—July 16*
Moss Ledge co., $25			May 1—May 16
Maria, Chihuaha, Mex., $2			May 7—May 28
Nuestra Sra de Guadelupe, Durango, Mex., $1			June 2—Je 20*
North Star, Lander co., Nev , $25			May 11—June 6*
Patrocina and Dolores S			Meeting May 16*
Ripon, Alpine co., Cal., $1			June 11—June 26*
Refugio, Chihuahua, Mex., $2½			May 21—June 6*
Salamander, Calaveras co., Cal			Annual Meeting, May 21*
Silver Queen, Lander co., Nev., $1			June 23—July 23*
Simpson & Bossell, Carson Valley, $1			May 25..June 14*
Sierra Valley, Plumas co., Cal., $1			May 31—June 18*
San Francisco, Moss Ledge, $25			May 1—May 16
Sweet Vengeance, $1			May 11—May 30
Siskiyon, $1.50			Anril 28—May 25
Sophia, Tuolumne county, $7			April 26—May 11
Salambo Copper, $1			May 8—May 29
Sierra Nevada, Storey co, Nev., $4			May 7—June 6
United States, Storey co., Nev., 50c			May 26—June 13*
Whitman, Lyon co., Nev			Annual Meeting June 5*

*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 82½	$ 83
Gov. Legal Tender Notes	78½	70
State Bonds, 7 ₱ cent	84	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	..	..
San Francisco Bonds, 1858, 6 ₱ cent	72	73
Sacramento City Bonds, 6 ₱ cent	18	..
Sacramento County Bonds, 6 ₱ cent	68	65
Marysville Bonds, 10 ₱ cent	78	82
Stockton Bonds, 10 ₱ cent	77½	99
Yuba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	75	78
California Navigation Co	63	64
State Telegraph Stock	20	35
San Francisco Gas Co	108	110
Sacramento Gas Co	..	75
Spring Valley Water Co	07	68
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	59	61
Central Railroad Co	70	..
North Beach and Mission	57	59
MINING STOCKS.		
Alpha	$325	$340.
Bullion, G. H	81	82
Ophir	535	540
Could & Curry	850	900
Empire M. & M. Co	180	185
Savage	975	1000
Chollar-Potosi	324	325
Hale & Norcross	900	950
White & Murphy	..	..
Sierra Nevada	8	9
Yellow Jacket	705	710
Overman	79	80
Crown Point	1300	1350
Antelope	..	..
Emeralda	1	5
Real del Monte	..	..
Buckeye	..	..
Dick Sides	..	..
Imperial	128	129
Ætna	..	..
Cedar Hill Tunnel	..	..
Wide West	..	..
Sierra Buttes Quartz Co	..	..
Central	..	..
California	..	..

Its correspondents are men of science, and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of Mining Press, San Francisco. [Nye County News.

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 00 @ 6 50
Do Superfine	5 50 @ 6 00
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	1 75 @ 1 85
Oats, choice, ₱ 100 lb	2 00 @ 2 15
Barley, ₱ 100 lb	90 @ 1 00
Beans, ₱ 100 lb	3 50 @ 4 00
Potatoes, ₱ 100 lb	1 05 @ 1 15
Hay, ₱ ton	10 00 @15 00
Live Oak Wood, ₱ cord	8 00 @10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ 9
Hogs, dressed, ₱ lb	12 @ 13
Groceries, Etc.	
Sugar, crushed, ₱ lb	-- @ 16½
Do China	10 @ 12½
Coffee, Costa Rica, ₱ lb	— @ 24
Do Rio	23½@ 24
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	8 @ 10
China do	7 @ 8
Coal Oil, ₱ gal	75 @ 80
Candles, ₱ lb	22 @ 24
Rauch Butter, ₱ lb	37½@ 40
Isthmus do	35 @ 45
Cheese, California, ₱ lb	16 @ 18
Eggs, ₱ doz	40 @ 50
Lard, ₱ lb	20 @ 21
Ham and Bacon, ₱ lb	— @ 22½
Shoulders	20 @ 22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45@ 50
do pickled ₱ lb	35@ 40
do Oregon	35@ —
do New York, ₱ lb	60@ —
Cheese, ₱ lb	25@ —
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	—@ 50
Lard, ₱ lb	25@ —
Hams and Bacon, ₱ lb	24@ 26
Cranberries, ₱ gal	75@ 1 00
Potatoes, old, ₱ lb	1@ 2
do Irish, ₱ lb	2@ 3
Tomatoes, ₱ lb	@ —
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	3@ 5
Pears, table ₱ lb	8@ 25
Plums, dried, ₱ lb	20@ 22
Peaches, dried, ₱ lb	16@ —
Oranges, ₱ doz	50@ —
Lemons, ₱ doz	75@ —
Chickens, apiece	87@ 1 12
Soap—Pale & C. O	10@ 12
Castile	11@ 15

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, May 12, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@ 1¾c ₱ lb; Plate 1¾c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.

Scotch and English Pig ₱ ton	60 @65
American Pig ₱ ton	55 @60
Refined Bar, bad assortment, ₱ lb	3 @—
Refined Bar, good assortment, ₱ lb	3½@—
Boiler No. 1 to 4	4 @ 5
Plate No. 5 to 9	4½@ 6
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—

COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing	34 @30
Sheathing, Old	20 @30
Sheathing, Yellow	30 @32
Sheathing, Old Yellow	12 @13
Bolts	13 @16
Composition Nails	30 @52

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	16 @18
Plates, I C Charcoal	14 @15
Roofing Plates	12 @13
Banca Tin Slabs, ₱ lb	30 @ 5

STEEL.—English Cast Steel, ₱ lb 12½@16

QUICKSILVER.—Per lb — @65

For export 65 @—

ZINC.—Sheets ₱ lb 9½@10

LEAD.—Pig ₱ lb 8 @—

Sheet	10 @12
Pipe	10 @12
Bar	10 @11

BORAX—California, ₱ lb 20 @23

RATES OF ADVERTISING.

—IN THE—

Mining and Scientific Press.

Miscellaneous Advertisements.

One week, per square	$1 50
One month, per square	3 00
One quarter (3 months), per square	8 00

Advertisements of great length, or of special character, inserted by contract on the most favorable terms.

Mining Advertisements.

	If paid in Advance.
Notices of Meetings, per square, one week	$1 50 / $1 00
Notices of Meetings, per square, four weeks	4 00 / 3 00
Assessment Notices, of ordinary length, four weeks	7 00 / 5 00
Assessment Notices, of more than usual length, for each additional square	4 00 / 3 00
Delinquent Sales, per square, two weeks	2 50 / 2 00
Delinquent Sales, per square, three weeks	3 50 / 2 50
Postponements, per square, one week	1 50 / 1 00
Slips of Advertisements, printed for meetings	
sessments, per hundred	1 50 / 1 00
Advertising law blanks, circulars, and advice	Free

☞ *The space of ten lines of solid agate advertising type constitutes a square.*

Terms of Subscription.

The Mining and Scientific Press is published every Saturday morning (containing sixteen pages—size of *Harper's Weekly*) at the following rates:

One copy, one year, by mail, in advance	$5 00
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One copy, six months, by express	3 50
Five copies, one year, by mail, in advance	20 00
By city carriers, per month	50
Single copies	12½
Monthly Series (or parts), containing 4 Nos	50
Monthly Series, containing 5 Nos	62½

The Circulation of the Press, already extensive, is rapidly increasing, and substantial men who can profit by widely disseminating information of their business amongst the most intelligent, influential and industrial classes of the Pacific States and Territories will find no more effectual or economical medium for advertising.

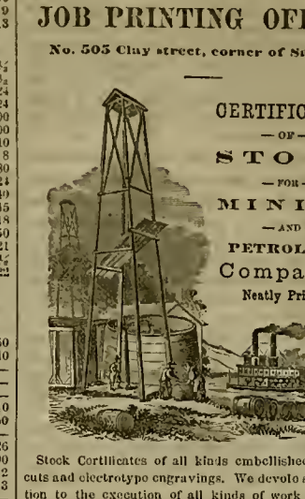
DEWEY & CO., Proprietors.

Patent Agency and Job Printing Office, 505 Clay street, San Francisco. April 1, 1866.

MUSIC PRINTING,
—AT THE—
MINING & SCIENTIFIC PRESS
Book and Job Printing Office.

We have a large fount of Music Type (the only one on the Pacific Coast), and are prepared to print Sheet Music or Music Books on favorable terms. DEWEY & CO.,
Corner Clay and Sansome Streets.

Mining and Scientific Press
JOB PRINTING OFFICE,
No. 505 Clay street, corner of Sansome.



CERTIFICATES
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—AND—
PETROLEUM
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Neatly Printed.

Stock Certificates of all kinds embellished with wood cuts and electrotype engravings. We devote special attention to the execution of all kinds of work required by Mining Companies, Machinists and Manufacturers.

CAUTION.

TO WHOM IT MAY CONCERN:—THE PUBLIC ARE hereby notified that a patent was allowed, December 27th, 1864, and issued June 27th, 1865, to Professor Henry Wurtz, for the use of sodium and amalgams thereof with quicksilver, in the extraction of precious metals from their ores. All persons using said amalgams, or purchasing or selling sodium or said amalgams for use in the treatment of gold or silver ores, are hereby cautioned that they will be prosecuted to the full extent of the law.

The patents of Professor Wurtz have been assigned to the Wurtz Amalgamation Company of New York city. It is the intention of the said company soon to appoint agents for California and the other mining States and Territories. In the meantime, applications for licenses to use sodium and its amalgams, may be addressed to the company, at their office, No. 57 Broadway, New York.

C. ELTON BUCK, Secretary.
March 9th, 1866. 14v12 6t

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLature of the State of California, entitled "An Act concerning Corporations," passed April 24, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD $750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY ONE THOUSAND; FOUR HUNDRED AND TWENTY DOLLARS AND EIGHTY-SEVEN CENTS. $1,051,420.87

III.—The Company has NO DEBTS

IV.—The amount of Insurance effected during the year, and which remained in force December 31, 1865:

Fire	$12,973,949
Marine	484,408

This Company commenced underwriting Marine Risks, August 1, 1865;

V.—This Company insures against the following risks, viz., BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19, 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Anson G. Sides,	John B. Newton,	D. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis.
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

The Great Pain Annihilator.

DR. E. R. JOHNSON WILL WARRANT TO CURE ALL cases of Asthma, Fever and Ague, Catarrh, Sore Throat, and Womb Diseases. The Doctor's success is miraculous in cases of RHEUMATISM, NEURALGIA, CONSUMPTION, GOUT, PARALYSIS, INFLAMMATION OF THE EYES, and all other diseases that human skill can reach. Rheumatic Pains removed in five minutes. Some of the afflicted that visit him come from one to six hundred miles, and soon find relief. Persons at a distance can be cured at home by addressing a letter to Dr. Johnson, No. 700 Market Street, San Francisco, stating case, symptoms, length of time the disease has continued, and have medicine promptly forwarded to any part of the country, with full and plain directions. ☞Consultation by letter or otherwise, FREE. 16v12-1m

OUR NEW YORK AGENCY.

Mr. Geo. M Newton is our authorized agent in New York City, and will receive advertisements and subscriptions for the Mining and Scientific Press at regular rates. Sample copies of our weekly and monthly issues can be procured by calling upon him, at the office of the "Stockholder," No. 72 William street.

Oakland Water-Cure.

APRIL 1ST, 1864, WE OPENED A HYGIENIC BOARDING House and Ladies' Health Institute in Oakland. The great advantage we have experienced since that time, in the treatment and cure of all those diseases peculiar to females, as well as those common to all, over that of San Francisco, induced us to give up the treatment of gentlemen in the city. We have accordingly removed our entire Bathing, Electro-magnetic, and Gymnastic Apparatus, which we used especially in the treatment of males, to our Health Institute across the Bay, and have found, after a trial of seven months, that gentlemen as well as lady patients recover, at our Fountain Farm Cure, one-third faster, than in the city of San Francisco. The climate here is the most even and bracing to be found in the State. The grounds command a view unsurpassed in the world. The Institution is furnished with an abundance of pure, soft water, from numerous springs; and we now offer to Mill-hers, Teachers, Lawyers, Miners, Merchants, Mechanics, Farmers, and all other worthy persons, who desire to try the advantage of the only *rational* system of medicine, the hospitalities of our Hygienic Home and Cure. Young men who have become debilitated or lost their health by excessive toil, exposure, or enervating habits, contracted through ignorance of Physical Laws, may with us find more of the encouragements they need, and means that will restore them to health, than elsewhere in California.

We claim for Water-Cure and Hygienic Medication superior advantages over all systems of drug medication in the cure of all disorders, whether acute or chronic; that it is followed by none of those debilitating diseases, such as Piles, Chronic Diarrhœa, Torpid Liver, Constipation, Intense Nervousness, Neuralgia, etc., nor those terrible Secondary Diseases, known as Varicose Swelling of the Veins, Necrosis, or Decaying of the Bones, Ulceration of the Limbs, Mercurial Rheumatism, Cutaneous Eruptions, etc., which we well know result from the free use of mercury and other metallic drugs, together with stimulants and vegetable poisons given to overcome acute diseases.

The Oakland Water-Cure and Eye Infirmary is by far the most complete in its facilities for the cure of all diseases commonly treated in all Eastern Water Cures of any like establishment on this coast, and the only one in California conducted according to the Theory and Practice of the New York Hydropathic College. We use all forms of Warm and Cold Wet Sheet Packs, the Electro-Chemical Bath, Steam Baths, Improved Sitz Baths, Douch Baths, a Patent Spray Bath, and Magic Baths. The last named was instituted by Dr. Smith with special reference to the cure of those diseases peculiar to miners, namely: Rheumatism, Inflammatory or Chronic, Stiff Joints, Paralysis, Mercurial, Lead, and Oak Poisonings. It is a sure cure for Ague and Fever. It aids more than any other Bath we have used in eradicating all kinds of drugs and infectious poisons, and in the cure of all disorders induced by exposure to dampness and water, foul air, absence of light and electricity, retorting metals, the malaria of rivers and low marshy grounds. Where there was a fair constitution left when other drugs had been applied for months as dyers without a cure, we have, in the past seven years, treated successfully the following diseases: Chronic, Inflammatory and Mercurial Rheumatism: Paralysis; Lung, Bronchial, and Catarrhal Affections; Diseases of the Heart, Kidneys, Liver; Dyspepsia, Constipation, Erysipelas, Scrofula, Piles, Inflammation of the Bowels, Chronic and Acute Diarrhœa, and all diseases and weaknesses peculiar to male and females. No physician in California is so favorably situated for turning to immediate home comforts and Hygienic conditions that are indispensable to the speedy recovery of nervous and chronic invalids. We have the only truly healthful boarding place in the State for men, women and children, with plenty of saddle and carriage horses for the use of patients and boarders.

To that class of Diseases and Weaknesses peculiar to females, and the medication that Hydropathic or Hygienic physicians employ in their cure, do we invite the special attention of patients and their friends. The ease and rapidity with which females suffering from general or special debility, recover in the bracing climate of the Bay, under Hygienic Medication, together with the universal success that has attended the treatment of females at Dr. Smith's Institutions, (both in Sacramento and San Francisco), induced us to make this class of human afflictions a specialty of our Institution. We have treated (mostly in the cure), over 300 females, several of whom had been "bedridden" for months and years, and all have been decidedly benefited, and with but few exceptions, returned to their homes in from two to six weeks, so far recovered as no longer to need a physician. We have never yet learned of a single instance of a relapse into their former condition.

Any delicate female invalid in whom nature has been suffering from nervous debility or diseases peculiar to her sex, that cannot be permanently cured by spending from four to six weeks at our Cure, and at the mere cost of $100. This statement we make in confidence, from an experience of the last seven years. From the many we have been treated at our Cure, we have yet to learn of a single regret from husband or wife of the time or means they have expended in Hygienic Medication.

NEW YORK, Aug. 1, 1858.

To all whom it may concern:

This certifies, that Dr. Barlow J. Smith is a graduate of the New York Hygieo-Therapeutic College, which College has a regular Charter from the Legislature of the State of New York, and is authorized to grant Diplomas, conferring on its students all and the same privileges and immunities in relation to the practice of the Healing Art, that are conferred by the Diplomas of any Allopathic or other Medical College in the country.

Dr. Smith has also devoted much attention to Phrenology, especially in its connection with Physiology and Pathology, a portion of the time under the instruction of Fowler & Wells, of this city, and has labored successfully as a teacher and lecturer on these subjects.

R. T. TRALL,
Principal New York Hygieo-Therapeutic College.

To all whom it may concern:

I have known Dr Barlow J. Smith, both in our office as a Student, and a practical Phrenologist in the country, and from what I know of him I can cheerfully recommend him as an honest, faithful deliverer of character, and as such can cheerfully recommend him to the public.

For the good of Science.
L. N. FOWLER, 308 Broadway, N. Y.

Dr. Smith spends a part of each day in San Francisco, attending to family practice and to Phrenological and Physiological examinations at his office, Room 13 Armory Hall, up stairs, corner Montgomery and Sacramento streets. Office hours from 11 A. M. to 2 P. M. Circulars sent on application. Address,

BARLOW J. SMITH, M. D.,
20v11tf San Francisco, Box 473.

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperience of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. The Mining and Scientific Press Patent Agency has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

Subscribe for it.—The large, illustrated sixty-four column weekly newspaper—the San Francisco Mining and Scientific Press—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

Engraved to Order.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 505 Clay st

By Express.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

Mining Summary.

CALIFORNIA.

Alpine County—

Rumors of a rich strike in the George Washington have been rife, but as the tunnel is kept under lock and key, nothing definite is known by outsiders. The Monitor *Gazette* of May 5th, says: "Hints are thrown out by some that the pretended secrecy is only a blind to make stockholders think something is up that they may be anxious to pay the assessment now due, and again it is said all those who have the inside, when narrowly scrutinized, exhibit all the symptoms of a "good thing" on the brain.

Some speak thus of the Sailor lode: Mr. Payne has shown us samples taken from points uncovered by him all along for a distance of nearly a mile, bearing unmistakable evidence of unity and continuity.

The Silver Mountain *Bulletin* says of the Pennsylvania company: "The upper tunnel is now in 200 feet, and has been run parallel with the ledge on the east side, having cut across it three times in that distance; each cutting having shown an improved appearance in the vein stone. The last cutting occurred the present week, revealing a solid ledge of full ten feet in thickness, and the quartz glittering with the ruby."

* * * * * *

"The lower tunnel is now in 260 feet, but from present indications, ore sufficient can be obtained from the upper tunnel to keep a 20-stamp mill in active operation for two years; the lower one can then be gradually driven in, so as to tap in time to keep up the supply.

"The Winchester, having delayed too long their timbering, have had a cave, which will retard the work for weeks.

Amador County—

The *Ledger* of May 5th, has the following items:

We learn that the Vaughn claim, at Pine Grove, is yielding very rich rock. Last Tuesday they "struck it" richer than ever.

We learn that work will soon be commenced on several of the copper claims in the Forest Home district. Among those mentioned are the Exchange, Mountain and Star companies.

The hill claims of Elkins, True and others, at Forest Home, are still paying handsomely.

Mr. Benj. Fenton has been sinking a shaft on the Spanish claim, about two miles from here. After sinking to the depth of one hundred feet or more, he commenced drifting, and during the past week, struck the ledge and is taking out some very rich rock.

The Ione City copper mining company, whose claim is located on the celebrated Newton lode, have struck a vein of very rich ore—equal to the best found in that district. The stock in this company is now looked upon as a good investment.

The *Dispatch* has "been shown a very rich piece of quartz rock, recently taken from the Golden Eagle claim, about one mile from Pine Grove in this county.

Butte County—

Great excitement exists in the vicinity of Cherokee, in consequence of the discovery of silver ore, which is said to assay as high as $270 to the ton.

Calaveras County—

The *Courier* says: "In one year hence, the Keystone, which is believed to be as good as the Union, will take its place among the great paying mines of the world. The Empire mine, though unprofitable at present, presents unmistakable evidence of permanence. The Calaveras, we are sorry to say, has been idle a long time, notwithstanding the fact that when worked, it yielded largely of first-class ore.

The amount of Union mine copper ore, shipped from Stockton to San Francisco, since the first of January last, is 2,349 tons, 1,087 pounds.

Fresno County—

The copper mines seem to be attracting the attention of miners and speculators. Many are of the opinion that the region will prove richer than Calaveras county.

Nevada County—

The *Union* of May 6th, says: "We yesterday saw some excellent rock taken from the Stockbridge mine, on Rocky Bar. The rock is rich in gold and sulphurets. The Sebastopol mill is engaged in cleaning up waste dirt from this claim, which will pay an average of about $12 to the ton."

Sixty-three tons of rock from the claim of Pratt & Co., Scadden Flat, crushed a short time since, paid $75 to the ton. The mine is a continuation of the celebrated Massachusetts lead.

From the *Gazette* we learn that the Mammoth company, whose claims are located up Deer Creek, and near the Snow Mountain ditch, have laid open their lead for a great distance and are now taking out some beautiful looking rock.

Another new lead has been discovered near the Snow Mountain ditch. Free gold was found in the croppings.

Rich veins of quartz have recently been reported in Eureka township. The *Gazette* visited the locality in order to judge for itself of the mines, but found them as yet undeveloped to any extent. The surface rock looked well. In Kirby & Ryan's claim, says that paper, the ledge has been stripped to a depth of from three to six feet for a distance of about two hundred feet, showing an average width of nine or ten feet. Free gold is plainly to be seen in any part of the vein thus exposed. The owners propose to sink a shaft, and take out one hundred tons of rock, to be tested by mill process.

The same paper speaks of several mines in the same district, not of late worked for want of means, and closes the article thus: In our opinion, all that is required to make Eureka township the most prosperous portion of the county is the necessary means to develop the quartz mines within its limits; and from present appearances, they will soon have all they desire for this purpose.

Copper.—The *Gazette* says: We have been shown some specimens of ore from the Thorp copper ledge, taken from a shaft now being sunk on the second extension from the original location. A considerable quantity of ore, some ten or twelve tons, has been raised from the shaft, all of which looks equally as well as that taken from Thorp's shaft. The specimens shown us are very rich. We are informed that the ledge has been traced across Bear river into Placer county.

Same paper of the 4th inst. says: We were shown yesterday, by T. T. Davenport, some specimens of copper which he brought up the evening before from the ledge on Greenhorn. One specimen, taken from the bottom of the shaft of the original location, was composed almost entirely of the black oxide ore, and is evidently very rich. The shaft is now down twenty feet, the ledge being eight feet in width, and as yet only one wall has been found. About twenty tons of the ore is lying on the ground. An assay of average rock, made a week ago in San Francisco, gave twenty seven per cent. of copper. This ledge is called the "Fox Ledge." It is in Little York township.

On the 3d inst., the Columbia Mining Company filed its certificate of incorporation in the clerk's office, at San Francisco. They intend to operate on this ledge. The capital stock is $110,000, divided into 1,100 shares of $100 each.

The Territorial *Enterprise* of May 3d, thus sums up the news from Excelsior district: At Meadow Lake (formerly Summit City), the snow is now about seven feet deep; about two feet more having been deposited there by the late storm. The weather is nevertheless pleasant and mild, and the snow melting off very fast. * * * * *

A body of very rich ore has recently been struck in the Knickerbocker ledge, belonging to the California Company. It is estimated that the rock that is now being taken out will yield upward of $500 per ton. Considerable excitement exists in that direction at present, in consequence of this rich development, and parties are busily employed in looking up their claims in the immediate vicinity, and are taking means to fully preserve all their rights and titles thereto. The arrivals in the district are about on an average of thirty daily. None of the mills are running at present; they have stopped to make some necessary improvements. The material of the newspaper which is to be started at Meadow Lake, is being packed in by Chinamen. A portion of the press, which weighs 500 pounds, is carried on long poles by forty of them. When our informant left, they had arrived nearly into the Enterprise camp.

The Enterprise, Winton, and California mills are in constant operation, and all of the rock is paying big. Four other mills are on the way, and will be packed in as soon as possible. The population is increasing very fast, mostly from the State of Nevada. We predict in about six weeks it will be the liveliest place in the State.—*Nevada Transcript, May 4th.*

Placer County—

The *Herald* says that the Poland company, located on the new quartz ledge recently taken up west of North Ravine, and about one mile and a half from Auburn, have had an assay of their rock, which yielded at the rate of $1,140 to the ton.

The same paper, under the heading "*a monster mine*," has the following: "The Baker & Crosby mine at Whisky Diggings, about ten miles in a southerly direction from this place, is one of the largest in the known world, while it differs from all others we have ever seen or heard of. The mineral vein is about one hundred feet in width, and seems to consist of a heterogeneous mass of ores, rich in gold, silver and copper. In the copper streak native silver is profusely scattered. The ore is so soft that the 4-stamp mill in operation at the mine crushes it as rapidly as a 20-stamp mill would reduce ordinary quartz; and last week the employees, taking advantage of the fall from the mine to the mill, set sluices and washed the ore down to the battery."

The following items are from the Dutch Flat *Enquirer*:

The Cedar company cleaned up, from a run of twelve and one-half days, $2,850.

The Badger company, after a run of twelve days, realized $2,230 over expenses.

The miners of Thompson's and Gray's Hills are agitating the question of laying an iron pipe from the end of the Dutch Flat water company's ditches to the end of Thompson's Hill.

The *Stars and Stripes* says: "E. M. Hall Esq., goes to New York, on the steamer of the 10th inst., for the purpose of enlisting the aid of the capitalists of that city in the development of the Placer county mines.

Plumas County—

The Quincy *Union* says—"The New York Company at Sawpit, have finished cleaning up. The company took out about $14,000 for three months' work in their claims. The Eagle Company have not quite finished washing up their pay dirt. This company will take out over $24,000. The Union Company have just commenced washing. Their dirt prospects well, and they calculate to take out a mint of money. The Franklin Company are washing the dirt taken out of the 'front' channel. They are getting coarse gold. Brown & Delany have been piping all winter, and have commenced cleaning up. The Comet Company intend commencing work in their tunnel in a short time. We are told that Crescent Mills is the liveliest town in the county at the present time. The Crescent Co. employ ten teams in hauling quartz from the Premium and Plumas ledges alone. Both of their mills are running, new buildings are being put up, and the place presents a business like appearance.'

Santa Clara County—

New Almaden.—We learn that the difficulties at the Almaden Quicksilver Mine have been settled, and that the company will soon resume work."

Shasta County—

The following items are from the *Courier*:

The Spring Creek Quartz Co. will commence next week to clean out their ditch—filled by the heavy storms of the winter, in many places—and to put their mill in order, not only to crush rock of their own, but to do custom work.

The number of persons interested in the Highland is now reduced to four. The mill will soon re-commence work.

Mr. Kelly has bought one half the Jollie lode, and will immediately erect a mill on it.

Work has been commenced by the Union Company, Lower Springs.

The Pitch Pine lode, near Whiskytown, and four and a half miles from Shasta, prospects better than any lode discovered in this district. Work, which was suspended during the rainy season, will be resumed in a few days, and continued until the ledge is fully proved.

At a meeting of the miners of Quartz Hill, Buckeye and Churntown, convened at Buckeye, Shasta county, California, April 28th, it was declared by a large majority—nearly unanimous—that Chinamen will not be admitted to work in the mines east of the Sacramento river, in said county.

Sierra County—

We glean the following items from the Downieville *Messenger*, of the 5th inst.:

The Sierra Claims, at Chancellorsville, for five weeks' run cleaned up $2,700.

We have general good news from Howland Flat. The Hawkeye claims, at Potosi, are running the main tunnel ahead, and a few days since struck what they thought worth prospecting. Six car loads returned two and three quarter ounces. We are pleased to hear of the renewed prosperity of the Hawkeye.

A correspondent writes from Port Wine: "Matters about our town are looking up again after a long suspense and rather gloomy prospects. The Gate, Erie and Monte Cristo claims are again paying well, and the prospects of other companies promise to follow suit in the course of the season."

Throughout the entire northern portion of this, and the south side of Plumas county, mining operations are very brisk, and the claims paying uniformly well; some of them extraordinarily. The yield of gold it is thought will exceed that produced during any previous year.

The Sears Union Water Company are about to extend their ditch through St. Louis and Port Wine to Scales' and Poverty Hill.

Siskiyou County—

The Yreka *Union* of 5th inst., says:

We are informed by Mr. Thompson, of Scott River, that Williams & Co., of that place, took out $1,400 on the 20th ult., and since that time have taken out nearly $4,000.

The mines on Humbug are paying better this spring than ever before. The claim of Messrs. Miller & McKimmey has been paying $100 per day for the past week.

We understand that several new quartz ledges have recently been discovered in the vicinity of the famous Schole ledge on Cedar Gulch, Scott Valley.

Tulare County—

The Visalia *Delta* of May 2d, has the following from a correspondent in Havilah: "Next week, Pieper's, Raud's, Thomas', Marsh & Kennedy's and the General Grant mills will all be running, and we are expecting great results. McKidney and Burdett made a good thing of their purchase of the new lead known as the Jo. Walker. They have just sold a one third interest for $22,500. They paid $3,000 for the whole. New lodes are being discovered every few days."

A new district has been discovered near the head waters of Erskine Creek, and just over the ridge from the Mt. Sinai district and Claraville. The leads are said to be large, well defined, and of wonderful richness. About one hundred men have left Clear Creek for the new district.

Yuba County—

The miners in Smartsville left their work at 9½ o'clock in the morning, proceeded to the claim of R. W. Creary, who had employed some Chinese to work in said claim, "quietly loaded up the Johns with their traps," and marched them out of town. They then assembled in the town hall, and after appointing a President and Secretary, proceeded to form a permanent organization, to be known as the "Union League of White Men," for the protection of white labor.

NEVADA.

Virginia—

We gather the following items from the Territorial *Enterprise:*

The Imperial is now running a drift at the 50-foot level westerly towards the red rock portion of the ledge. At present this mine is considerably troubled with water in their lower level, but have managed so far to keep it under.

We examined, on yesterday, a small lot of very rich silver ore, taken out of the Kentuck mine, Crown Point Ravine, at the 275-foot level. It was very rich, and a ton of the same sort was estimated to be worth $10,000. There is more of it.

Reese River—

The *Reveille* thus describes a specimen from the Yankee Blade mine, calling it a premium specimen:

It is fourteen inches long by ten inches wide, and about five inches thick, and presents on one side a gorgeous mass of light violet colored ore, of high metallic lustre, dotted and fleeked at every point with dark rich ruby; and on the other side there are little clusters of iron pyrites, rich in silver, blended with dark rich silver sulphurets and ruby. It is altogether the finest specimen yet exhibited in the country.

The same paper speaks of the North Star and Oregon mines:

Work is steadily pushed on the mines, and the Oregon, which has been opened through an incline of great depth, is exhibiting a splendid ledge, and the ore extracted in the course of exploration has already produced a large dump. The North Star keeps pace with the Oregon, and is daily improving in appearance; and as the drifts are pushed in marvels of treasure are disclosed. On the surface lies a large pile of its wonderfully rich ore, exhibiting ruby almost in every piece, and looking as though the heap had been sprinkled with blood.

Of the Roanoke: The vertical shaft has been sunk to the depth of two hundred feet through rock of adamantine hardness, which, however, during the last several days has changed it character, and is apparently softer.

A new district has been organized under the name of "Eastern White Pine." It is on the eastern side of the range of mountains of the same name.

John Frost reports very favorably of the advantages of the new location, both as regards the character of the mineral and the abundance of wood and water. According to his statement, the veins discovered and located range from four to ten feet thick, and the mineral brought in by him was procured in every instance from the croppings.

In the shaft and incline on the Southern Light, adjoining the Savage works, a body of excellent ore is being uncovered, which will yield very handsomly. Work has just been resumed in the original incline, which has already been pushed to the depth of over two hundred feet; and a level, of sixty-five feet in length, will connect it with the work near the Savage.—*Reveille.*

The Stella Hoisting Works were "inaugurated" the other day.

"Hot Creek" is the name of another new district, eight miles southeast of Austin.

From the Nye county *News* we select the following items:

The Suecor Mill, formerly known as the Pioneer of this place (Ione), which started up a little over a week ago, has reduced the price of crushing ore from $65 to $55 per ton.

Esmeralda—

The *Union* of April 28th, says that Mr. E. O. Taylor has been sent out from Philadelphia by a company of capitalists, to develop several ledges belonging to the company. He has already commenced a shaft on Last Chance Hill. Fifty thousand dollars worth of machinery has already reached San Francisco on the way to the ground.

Mr. Gallagher of Aurora, called on us the other day, and gave us an item in regard to the Crockett mine, of which he is the superintendent. A lot of the rock crushed a few days ago at Poor's mill, yielded nearly one hundred and fifty dollars to the ton.

We see by the Esmeralda *Union*, that Mr. Gallagher is spoken of as an especially efficient and economical manager.

Black Rock—

The Red Bluff *Independent* says: "Notwithstanding the many stories about Black Rock mines being a humbug, we understand that parties from San Francisco have confidence, and that Mr. Huff, well known in northern California, together with others, have visited the mines, and being satisfied of their richness have returned to San Francisco with the intention of sending out a twelve-stamp mill. Red Bluff is only 200 miles west of Black Rock, and a good road all the way."

ARIZONA.

One hundred tons of copper ore from the Planet had reached the mouth of the Colorado, was to be reshipped for San Francisco. The ore is said to sell in this city for $220 per ton.

It is said that a company is to be formed in San Francisco for the purpose of exploring Arizona in search of that mountain of decomposed quartz, reported to have been discovered by the three men who escaped from their ten Indian captors, after having been in their hands for ninety-four days. A fully armed body of men numbering one hundred, is willing to beard the monster Apache in his den, on the strength of the story.

A correspondent of the *Flag*, in a letter from Fort Grant, says: "At various points along the Colorado river, gold has been found disseminated in the soil, some spots yielding rich, others nothing. Chimney Peak on the Colorado, was at one time a favorite locality. La Paz, one hundred and eighty miles above Fort Yuma, was a few years since a great attraction. It contained in 1863 about eight hundred inhabitants. Water is scarce in all these diggings. Some Mexicans still make small wages in the vicinity by dry washing. Rich diggings were found on the Hassayampa, better known as Weaver diggings, a few years ago, but they were soon worked out. In fact, it may be said, though rich placer mines of limited extent have been found in Arizona, no extensive mines of that kind have as yet been discovered. If any such exist, they are at present within the dominions of the Apaches." A few weeks ago, the United States Marshal Major Duffield showed us some specimens of silver lead ores, argentiferous galena of great richness, taken out of the Santa Cruz mountains, east of the town. The ores of silver found in Arizona are argentiferous galena, native silver, auriferous sulphuret of silver, black sulphuret of silver, sulphate of silver, and sulphate of iron combined. The gangue is usually quartz or feldspar." * * * * *

"Copper mines are efficiently worked at different points on the Colorado river. Whilst many of these mines have and will prove failures, others from their accessibility to steamboat navigation will prove to be valuable. The ores of copper found in Arizona are usually the sulphurets, principally gray."

IDAHO.

The *World* of April 14th, reports the new steamer on Snake river to be nearly completed. She will run between Olds' Ferry, which has been removed twelve or fifteen miles down the river, and a point on snake river, about thirty miles from Boise City, and thirty from Owyhee. The landing will be about sixty-five miles from Idaho City.

"One of the claims of Moore & Co., on Buena Vista Bar, under the supervision of Charley Young, Esq., cleaned up this week, after four days run, and weighed out about five hundred ounces. The claims along the bluff are generally doing well."

On the question which has been so much agitated of late, a letter from Owyhee to the Trinity *Journal* says: "There is much contention as to which is the most feasible route for business with this Territory, but the preference is almost universally in favor of the one starting from Chico, on the Sacramento, because it is the nearest and the best natural thoroughfare yet opened."

MONTANA.

The Blackfoot correspondent of the *Santa Cruz Sentinel*, says that Elk Creek, in regard to which so much excitement existed at last reports, is fast losing favor; and that Blackfoot is thus far "the best camp on the west side of the mountains." Quite a lively town is springing up at Carpenter's Gulch.

Speaking of the routes, the same says: For passengers the quickest route is by overland to Salt Lake, and thence by stage to any portion of the Territory. The cheaper way would be *via* Portland across the Cour de Alene mountains.

The probabilities now are that the mouth of the Musselshell will be the head of navigation of the Missouri, as nearly all the dangerous shoals are between that point and Fort Benton. A town site is located, and the road from there to Helena is being put through fast as possible. He closes his letter thus: I have no doubt but many will be disappointed in the country, but can assure you that the country is no humbug, the many reports to the contrary notwithstanding.

A correspondent of the *Post* writes from Blackfoot, April 10th: Already a few of the more favorably located claims have commenced washing, and invariably with results highly satisfactory. Ophir creek will be worked for miles above and below town, and the creek undoubtedly contains many rich claims. The mines on Carpenter's bar and Prairie gulch are considered by many to be the best in the vicinity of this place. Several new discoveries, both east and west of Blackfoot, have been made during the winter, and between Snowshoe and Little Blackfoot creeks, two new districts have been formed. A ditch has been surveyed and, I understand, will be prosecuted to completion as early as possible, to convey the water from the latter sufficiently high to cover the new diggings. There is a large scope of country between these two streams that prospects well, and only remains untenanted from the want of water to work the ground.

* * * * * *

From No. 8, below discovery on McClellan gulch, $12,584 were taken last week, the result of five day's run with one string of sluices. I am also informed that $3,744 was cleaned up from a single day's run, on the same claim, since. This, considering the disadvantages of working at this season of the year, is pretty good, even for Montana.

It is said that Greathouse & Kelly are about starting a line of stages between Boise and Helena.

The Pittsburg, Pa., *Dispatch* says that the steamboat Peter Balen, from Pittsburg Pa., to Fort Benton, will be the first of a line of packets, direct from the iron region to the gold region. The boat is a model river steamer, said to be the finest on the Western waters. She is armed with two brass swivels, and her pilot house is bullet proof. The distance to be traversed by the Peter Balen is four thousand six hundred miles. The vessel is one hundred and seventy-five feet keel, thirty-seven feet beam, and five feet depth of hold. She carries a sawing machine to cut the wood necessary to run the Upper Missouri. The fare to any of the Montana cities is $320 from Pittsburg, and $300 from St. Louis. Captain Joba Williams is in command.

The Gold Hill Mining and Tunneling Company has been organized for the purpose of tunneling for Gold and Silver Lodes in the district granted to them by the Legislative Assembly, located Grunite creek, containing 264,000 square yards of ground. W. R. Gardner is the agent.

Hydraulics.—The *Post* of April 21st says: The Nelson Mining Company got up steam at the Hotel de Murph, on Thursday afternoon, and both engines worked admirably. A large number of citizens witnessed the first performances of the hose on a bank of refuse dirt, and all seemed pleased with the highly effective action of the stream directed upon it from the nozzle. The miners are as busy as bees in July, all along the gulch. The gold is as yellow as ever, and just as tempting.

We learn from a reliable source, that a dry gulch has just been discovered between Bivens' and Harris' gulches, which bids fair to be rich. It was discovered by Mr. Huffaker, of Bagdad, in Bivens' gulch. The gold is course, weighing from fifty cents to $2.00 to the piece. The first day Mr. H. panned out $15. Quite an excitement exists in that vicinity. It is proposed to extend the Ramshorn ditch, so as to bring water into the gulch, and this will be done as soon as the frost gets out of the ground sufficiently.

A correspondent of the same, at Pipestone, says: Some new lodes have been opened this spring. One called the Clipper, struck by Messrs. Garrett & Kipp, is about five feet in width, and is undoubtedly a rich lode; nearly all of the rock shows free gold. A tunnel is being run into the Emigrant, and the ore bids fair to go ahead of any other in the Park. From one and a half pounds of ore, taken at a depth of forty feet, was obtained ninety-four cents, and there appears to be plenty of the same sort left. A large quantity of ore is ready for crushing. Workmen are busily engaged in getting ore out of the Geneva. This lode shows fully eight feet in width, and the ore is rich. From one pound of average rock, taken out at a depth of fifteen feet, seven cents of coarse gold was obtained.

* * * * * *

The miners have commenced work on the bars on the Big Pipestone, and are doing well. On the Little Pipestone, they report taking out an ounce per day to the man.

OREGON.

The Umatilla *Index* says that four men who were prospecting the Cinnabar mines, thirteen miles from Canyon City, were attacked by nine Indians—one was wounded. The citizens are forming themselves into companies for their protection.

New placer diggings have been discovered within ten miles of Canyon City, near the road, paying from twenty cents to one dollar to the pan. One wheelbarrow load of dirt yielded eight dollars.

Rucklo & Co.'s quartz mill, in Powder river valley, cleaned up $8,000 after one week's run. The Blackfoot fever is abating, and parties are returning to Idaho City. The mines are opening well and labor is high, eight dollars per diem.

COLORADO.

The following items are from the Colorado *Journal*, of April 12th:

There was a lode struck yesterday in Russell, named Comstock, recorded and bonded for $12,000.

It is said that the extension of the Kingston, famous lode in Russell, has been struck. The ore is the same and the crevice five feet in width.

Mr. Huddleston sold the Texas lode in Rome, N. Y., for $32,000.

Charles H. Sherman has organized a company on the Sherman Lode, situate on the hill east of the Bobtail and Fisk, and has a working capital of $70,000, which he is coming on to apply to the development of said mine.

Mr. Garrison last week sent off 80 ounces of gold from his new mill.

Times never appeared so encouraging to us since 1863.

Copper.—A gentleman of Ward district took East 40 ounces, avoirdupois, of ore from the Columbia lode, and smelted it in crucibles, getting a little more than 11 ounces of pure copper, or more than 25 per cent. It made quite a sensation.

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Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

Mr. S. D. Woods, will correspond and act as Agent of the MINING AND SCIENTIFIC PRESS in the interior.

San Francisco:

Saturday Morning, May 12, 1866.

THE SAN JOSE RAILROAD MACHINE SHOP.

We took occasion, a few days since, to visit the Machine Shop of the San Jose Railroad Company, under the superintendency of Mr. R. R. Bishop, Master Machinist of the road, and were shown by him through all the different departments. We were much surprised at the completeness of the arrangement for the manufacturing or repairing of all kinds of railroad machinery. The car building department is a large and conveniently arranged building, where they can turn out first-class cars, complete, with as an elaborate a finish as any establishment of the kind in the Eastern States, and at a price much less than the cost of importation. In the machinist room the Company have under the management of Mr. Bishop,—whose skill as a mechanic in that particular line of the art cannot be excelled,—some of the finest pieces of mechanism in the shape of turning-lathes, drilling-machines, etc., which we have ever met with; these machines were moreover the product of American ingenuity. One thing in particular that attracted our attention was one of McKenzie's Elevators, with which one man can with the utmost ease place a car axle on the lathe, the endless chain of the Elevator fitting into the groove of the blocks in such a manner as to prevent the weight to be raised from falling. The machinery is driven by one of Hondley'e Engines which, by the by, is the most compact and economical thing of the kind often met with, and which does its work noiselessly, cheaply and effectually. Mr. Bishop informed us that the Engineer does as much work in the shop, besides attending to his engine, as any man he has; and the whole cost of repairs since the engine was first put up, some months ago, had been but twenty-five cents. We noticed the workmen busily engaged in turning the bearings of a lot of car axles, just passed over to them from the Pacific Forge Company's Works, now in successful operation close at hand, and at a less cost than imported ones, and in quality much superior. We take much pleasure in noticing such evidences of enterprise wherever found.

WHEN a vain man makes up his mind, he might well feel mortified at the smallness of the package.

THE BLUE LEAD OR CEMENT MINES.

Recent developments are attracting an unusually large share of attention to what is generally known as the "Blue Lead" or cement mines, which are found occupying a belt of country from two to three miles in width, and extending from the Feather river on the north, to the Merced on the south, a distance of upwards of 200 miles. All admit that this gravel or cement overlies the dry bed of an ancient river; but whether that bed once formed one continuous stream, or whether there may have been several streams running in the same general direction, and having their outlets along the coast of a great inland sea, or otherwise, is as yet a matter to be determined.

It is to be regretted that so little attention has hitherto been paid to data of interest, in connection with this valuable and extraordinary deposit. Some considerable space is devoted to its consideration in the last published volume of the California Geological Survey; but not sufficient to render the observations there recorded of much practical or scientific value. It is proposed, however, by the Survey, at some future time to connect together these various river channels, and thus reconstruct the system of water courses by which the Sierra has been furrowed, in an age long gone by, and before the present system of rivers could have had an existence. The practical value of such a work can scarcely be estimated in the aid it would render the miner as a guide to his explorations, and in giving a clue to the extent and duration of this valuable class of mining.

What is called the "blue lead" proper, is a narrow belt of hard cemented blue gravel, varying from fifty to several hundred feet in width, and from three or four to fifteen or twenty in depth, and occupying the lowest portion of the depression along which this ancient water course found its way. The course of this lead is extremely tortuous, and must have run through a comparatively level country. There appears to be evidences of its having met with "feeders" at various intervals along its course, coming in from the east. At the points of junction of these feeders or branches, the lead appears to be sensibly widened.

Some idea of the immense changes which the face of the country has undergone since these ancient rivers found their way along what is now the flank of the Sierra, may be inferred from the fact, that these beds have been covered up by a detritus, a large portion of which is volcanic, to a depth of nearly or quite 1,000 feet. Since that deposit was made, the present system of rivers has had its origin, passing at a greater or less angle *across* this ancient deposit, and in some localities, as near Forest Hill in Placer county, they have cut their way down through this 1,000 feet of gravel and continued on from 200 to 3,000 feet deeper still, in the hard slate below!

In our last issue we gave some account of what is doing in cement mining in and around You Bet, in Nevada county. A hasty trip into that section, last week, enables us from personal observations to fully corroborate the statements of our correspondent. Another correspondent, in our present issue, gives some description of similar mining operations at and near Smartsville, on the road about half way from Marysville to Nevada. The same class of "diggings" is found, at intervals, all the way throughout the entire extent of this immense deposit of auriferous gravel. Their importance and value can scarcely be estimated.

A SILVER MOUNTAIN CLAIM.—There is an increased movement of mining operations in Alpine county. We have lately seen rare specimens from several lodes. The most recent samples are noticed in another column. We understand that the Pennsylvania company lately struck a rich spur (leading to the main vein) which contains both gold and silver, some of the rock being judged as good as the best Comstock ore. The gold is visible in grains varying from the size of a pin head to a pea. The present season seems likely to prove up this important district.

CONTRIBUTED FOR OUR CABINET.

Under this heading we shall continue to mention and describe according to merit, such specimens of ores, minerals, fossils, curiosities, etc., as may be presented or forwarded to us by mail or express prepaid. Each article will be numbered and placed in our cabinet and recorded with the name of the donor, and the claim or location from whence it came.

M. A. WOODSIDE, of Georgetown, El Dorado county, sends us several samples of ore. No. 1 is a very interesting specimen, and most undoubtedly contains emery. It is well worth a careful analysis. The fact of its intimate association with emerylite, is, to a certain extent, presumptive evidence that it contains emery. No. 2 is a very fine specimen of emery, and fully answers the description of that mineral which we gave in our issue of April 14th. Emerylite, of itself, is most unlike emery. The first is a micaceous mineral, strongly resembling mica, foliated like that mineral, and occurs in coarse plates; the latter is an aluminous mineral, very hard, scratches quartz, is crystalized and similar in its nature to corundum, the amethyst, ruby, etc. Where it occurs massive, it is finely granulated, or semi-crystalized in structure, and in color varies from a deep to a bluish or blackish gray, and is sometimes brownish. The specimens of both minerals sent answer well the above description. No. 3 is a specimen of manganese. No. 4 is probably a hydrated silicate of alumina, containing, probably, both iron and manganese. No. 5 is a scoriaceous mineral, composed of silex and alumina. The presence of a notable quantity of the latter may be detected by wetting it with the tongue, when it will give off the strong odor peculiar to that mineral, and which is never perceived in silicious rocks.

The mineral from W. S. G., of Colusa, is evidently of a basaltic origin, and is, probably, destitute of any of the precious metals; we will, however, give it a fair test.

BUCKEYE No. 2, Silver Mountain District, Alpine county, Cal. We are indebted to Mr. D. C. Riddell for samples of ore from this company's claims, consisting of dark gray sulphurets, showing some ruby silver. Assays have been made ranging from $120 to $1,568 per ton. These claims were located in 1861. Some six weeks since the ledge was struck at a depth of about eighty feet, width five feet, dipping east at an angle of about forty-five degrees. Direction, north and south. Both walls are well defined. The company have given powers of attorney for the sale of this mine in the East, subject, however, to be revoked by telegraph. Mr. G. W. Mank is Superintendent. He is now engaged in timbering the mine, preparatory to pushing forward the work of developing the same.

ASSAY OF ORES FROM PLACER COUNTY.—The Placer *Herald* has an article on the quartz ledges in that neighborhood, and gives the results of some assays made by Mr. Treadwell, of Ophir. We copy them:

OPHIR DISTRICT.—Salmon's (now Tallmans') lead, silver, $105,60, gold, $24.11; total, $129.71 per ton.

Boulder Lead.—Croppings—gold $60, silver $11.28; total $71.28 per ton. Sulphurets from the same $1,600 per ton.

North Star.—Sulphurets—gold $2784.12, silver $197.88; total $2,985 per ton.

Peter Walter Lead.—Sulphurets—gold $1,130.12, silver $50.27; total $1,180.39 per ton. This lead has yielded rock extraordinarily rich in free gold.

AUBURN DISTRICT.—Vanderbilt Lead—Croppings—gold $60.28, silver $8.86; total $69.14 per ton.

Aspinwall.—Croppings—gold $30, silver $19,61; total $59 61 per ton. Sulphurets, gold $330, silver $62.04, total $292.04 per ton.

Great Eastern.—Croppings—gold $60, silver $18.80; total $78.80 per ton.

THE fossil remains of a gigantic bird, estimated to have stood twenty-five feet high, have been discovered in some beds of limestone at Nelson, in New Zealand. The remains consist of a head, minus the lower jaw, the dimensions of which are three feet six inches, by one foot ten inches.

UNSHED tears are better than those that fall.
How blessings brighten as they take their flight.

LIST OF OFFICERS OF CORPORATIONS AND MINING COMPANIES.

[PUBLISHED IN THE FIRST ISSUE OF EACH MONTH.]

[Below we give the date of recent meetings held in this city and the names of officers chosen or appointed. Every bona fide company is invited to send us the result of their election, to be thus put on record, gratuitously, with any other facts of general interest.]

RETURN COPPER M. Co., Andrew Valley district, El Dorado Co., Cal.—May 1st, 1866. Trustees: Jno. W. Dwinelle, E. W. Leonard, O. P. Hart, W. N. Muffley, G. M. Adams.

SOPHIA CONS. G. & S. M. Co.—Trustees: J. S. Josephi, H. Loewy, A. Unger, J. E. de la Montague, Wm Tishel. President, J. S. Josephi; Secretary, D. E. Josephi; Superintendent, F. J. Boyer.

CAPITOLA G. & S. M. Co.—April 30, 1866. Trustees: S. Peck, J. R. Hely, E. H. Swarthout, S. C. E. Thayer, C. E. Abbott. President, C. E. Abbott; Secretary, D. R. Beckford; Treasurer, E. H. Smarthout.

RECENT INCORPORATIONS.

IONE QUARTZ M. Co.—Principal place of business, San Francisco. Capital stock, $200,000, divided into 400 shares of $500 each. Trustees: Lewis Girette, George Hearst, Louis Sloss.

ASSURANCE M. Co.—Location, Monterey County, Cal. Capital stock, $144,000, divided into 1,440 shares of $100 each. Trustees: J. A. Eaton, G. R. Spinney, Wm. F. Brandreth, Wm. Lellingwell.

MAMMOTH G. M. Co.—Location, Keyesville District, Kern County, Cal. Capital stock, $240,000, divided into 24 shares of $10,000 each. Trustees: Geo. D. Roberts, Alex. W. Baldwin, and C. J. Hillyer.

NEAGLE & CORCORAN S. M. Co.—Location, Storey County, Nev. Capital stock, $200,000, divided into 2,000 shares of $100 each. Trustees: W. Neagle, Isaac E. Davis, Wm. Corcoran, and Daniel Murphy.

The State Geological Survey.

EDITOR MINING PRESS.—My attention was called to an editorial article under the above caption, which appeared in a late number of the *Alta California*, from which I quote the following extract: "The volume on geology, already published, has attracted much attention for its description of the distribution of the Jurassic, Triassic, and Cretaceous formations *under circumstances different from those observed elsewhere.*" Having attentively read the volume in question, and having failed to remark the difference alluded to in the sentence marked in italics. I am desirous of ascertaining whether any notable difference exists in the arrangement of these rocks in this State, as compared with the same series in other countries or not. Perhaps you, or some of your readers, could inform me on a point which

"I WANT TO KNOW."

Rough and Ready, May 5th.

We are not aware of any general difference in the sequence or arrangement of the above named rocks in this State, as compared with the same series in other countries. Perhaps our contemporary alluded to some minor specialty, and, in the haste of writing, made too wide a generalization.

"SECURE A HOMESTEAD" is the best advice that can possibly be given to thousands of our citizens who are possessed of moderate means, but are yet without a real *home* in this beautiful land and fruitful clime. In another portion of this paper will be observed a notice of lands and homesteads for sale by G. E. Smith, Esq., at San Leandro. Mr. Smith is a fair minded gentleman (something that cannot be said of most land operators,) and we advise those in this city and in the interior of this coast, who wish to secure a liberal homestead in a congenial climate near San Francisco, and of easy access to the city, to correspond with Mr. Smith, or take a trip some pleasant day to San Leandro. Good schools are in close proximity to these lands.

IMPORTANT MINING SUIT.—James Neall and J. R. Crandall have commenced suit against the Green Emigrant Quartz Company for $10,000, a sale of the property, and a division of the sales pro rata among the stockholders. This suit relates to the quartz ledge on Bald Hill, three miles north of Auburn, Placer county, upon which the big strike was made a year ago.

THE GREENHORN COPPER DISCOVERY.—The late discovery of copper, by Mr. Thorp, near the junction of Greenhorn creek with Bear river, is attracting considerable attention. We took occasion during our trip, last week, into Placer and Nevada counties, to pay a short visit to this mine. We found the brothers Thorp, and their partner Mr. Smith, busily engaged in sinking a shaft at the original point of discovery. The shaft had been carried down some sixteen feet, and from it had been raised some fifteen tons of ore. The yellow sulphurets were struck within two or three feet of the surface, and have continued down to the bottom of the shaft, leaving a distinct wall of good looking ore all the way down on the south side; but considerably broken up upon the north side of the shaft.

Much work will yet have to be done upon this mine to fully develop its value; although so far as opened the developments are exceedingly flattering. Yellow sulphurets are found along the line of the outcrop for the distance of a mile or more, and extension claims have been taken up for several miles.

The vein is inclosed in a heavy intrusive belt of serpentine—silicate of magnesia—which can be traced for many miles across the country north and south, having an apparent breadth of about half or three-quarters of a mile, and gradually changing on the east and west to chloritic, and argillaceous and silicious slates. Active operations are in progress for the development of the mine, and fifty or a hundred tons of ore will soon be delivered in this city, when it will be sampled and arranged, from the results of which we shall probably be able to speak more particularly with regard to the value of the mine.

New Mining Laws of California and Nevada.

We have just issued, in cheap edition, the new laws relating to mining and corporations in California and Nevada, passed in 1865–6. Some of these laws are of the highest importance to parties interested in the matter of locating and holding claims, and prospecting mines, in these States. Copies sent by mail. Price, 25 cents.

Address, DEWEY & Co., Patent Agents.
San Francisco, May 1st, 1866.

Judicious Resolutions.

Several of our most substantial and judiciously managed mining corporations have passed resolutions, since the approval of the new assessment law, requiring all notice of assessments and sales to be published in the MINING AND SCIENTIFIC PRESS, the only thorough (daily or weekly) mining journal on this coast. Our efforts to concentrate all mining advertisements in one paper, for the economical convenience of shareholders and assessment payers, are meeting with decided success. Those who believe in supporting the mining cause, should bear our paper in mind, and bring up this subject at the next trustee or shareholders' meeting.

San Francisco, April 7th, 1866.

Look Out for Illegal Advertising!

All assessments of corporations levied on, or subsequent to, March 26th, are governed by the new law approved on that day. We notice that some of our important mining companies are advertising their assessments illegally in the daily and weekly press of this State. As the new law is more liberal in its provisions for advertising than the Act of 1864, these companies have yet time to retrace their steps and begin anew and right. We speak of the matter for the benefit of all concerned. We have prepared a set of correct blank forms for advertising assessments, which we furnish free on application at our office, together with rules for advertising and copies of the new law.

A PRETTY CUSTOM.—One of the prettiest of Christmas customs is the Norwegian practice of giving on Christmas day a dinner to the birds. On Christmas morning, every gable, gateway and barn-door, is decorated with a sheaf of corn fixed on the top of a long pole, wherefrom it is intended that the birds shall make their Christmas dinner. Even the peasants will contrive to have a bandful set by for this purpose; and what the birds do not eat on Christmas day remains for them to finish at their leisure through the winter.

THE ÆTNA IRON WORKS.—This new foundry and machine works establishment lit its fires for the first time on Thursday last, and turned out quite a nice lot of castings. The company is composed of several of our most enterprising mechanics, who have hitherto been connected in various capacities with different foundry establishments in the city. There was quite a gathering of the friends of the new firm on the occasion, and the hand of fellowship was most cordially extended by their fellow mechanics. May the fullest measure of success attend them in their new enterprise.

WORDS FOR MINERS.—The Gold Hill *Daily News*, Nevada—a medium of good authority—saith thus:

The MINING AND SCIENTIFIC PRESS is a weekly journal, published in San Francisco, which is entitled to the subscription patronage of every practical miner in Nevada, and every person interested in Nevada or California mining operations. It is a well gotten up sixteen-page quarto; and its reading would lend vastly to the particular "posting" and general enlightenment of our sort of working folks. Subscribe for it. Five dollars a year; three dollars for six months. It should have an agency in Virginia and Gold Hill; but we see none advertised in its columns. Every new improvement in mining implements and operations are fully described by words and illustrated by wood cuts in this excellent publication. A specimen number can be seen at our office.

TOWNE & BACON, Print—
Stock Certificates,
Assessment Receipt Books,
Transfer Journals,
Circulars,
Hand Bills,
Cards,
Billheads,
And every kind of Job Work that may be desired.
A NEW ARTICLE OF TAGS FOR GROCERS' USE.
16v12 **536 Clay street, opposite Leidesdorff.**

J. O. HANSCOM, H. S. SMITH. } **HANSCOM & CO.,** { T. PENDERGAST, W. W. HANSCOM

Ætna Iron Works!

Southeast corner Fremont and Tehama streets,
SAN FRANCISCO,
Practical Machinists and Iron Founders,
MANUFACTURE
STEAM ENGINES,
QUARTZ MILL MACHINERY OF ALL KINDS,
SAW MILLS, FLOUR MILLS,
Dunbar's Improved Self-Adjusting
PISTON PACKING,
Now so extensively used in the East and in this State. Requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.
HANSCOM'S CRUSHER,
The best of the kind now in use in this State or anywhere else.
Wheeler & Randall's New Grinder and Amalgamator,
Which only needs examination to be appreciated.
Tyler's Improved Water Wheel,
Giving greater power at lower cost, than any wheel in use. Send for one of our circulars, giving full tables.
All Wheels warranted to give the power as set forth, or the money will be refunded.
Sole makers for this coast of the "Pendergast White Iron Stamps, Shoes and Dies."
None genuine unless obtained from us. Every one warranted.
Patented Machinery of all kinds will be furnished by us at market prices. Particular attention given to drawings and specifications of machinery, which will be made to order. The patronage of the public is respectfully solicited.
19v12

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HAY,
COAL,
CATTLE,
MINERS', AND
GROCERS'
Scales.
We would call the attention of Miners to our large scales for WEIGHING LOADED WAGONS, of from 10,000 to 20,000 lbs capacity.
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REAL ESTATE, STOCK,
—AND—
General Auction and Commission House,
626 Montgomery street, (Montgomery Block).
JAMES N. OLNEY, Auctioneer.
SALES OF FURNITURE AT RESIDENCES.
☞ Administrators', out-door, and Special Sales promptly attended to. 19v12

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MAYNARD & TIEMANN,
Mining Engineers and Metallurgists,
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—AND—
CENTRAL CITY, COLORADO.
19v12 1y

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News

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HOMESTEADS!
IN THE COUNTRY.
Twenty-Two Acre Blocks
Adjoining the beautiful Town of
San Leandro, Harlan's Addition,
BUT ONE HOUR'S RIDE FROM SAN FRANCISCO.
Property but a few rods from the Railroad Depot. Good schools, good water, splendid view, free from wind and dust, and the best of soil.
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3, 4, and 5-Ply,
FROM 4 TO 22-INCH,
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FOR SALE BY
GILLIG, MOTT & CO.,
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—AND—
Nos. 148 AND 150 J STREET,
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BRUCKNER'S
Mechanical Roasting Furnace
AWARDED A
PREMIUM SILVER MEDAL
—BY THE—
The Mechanics' Institute.
THESE FURNACES ARE NOW MANUFACTURED after an improved mode of construction, which GREATLY SIMPLIFIES THEIR OPERATION, and afford a much larger oxydizing surface to the action of heat and atmosphere.
The weight of a Furnace nine feet long by four feet in diameter does not exceed one ton.
THE IMPROVED FURNACE
will soon be more fully described and illustrated in the columns of the MINING AND SCIENTIFIC PRESS.
Parties wishing to erect such Furnaces, are requested to leave their orders with
T. KALLENBERG,
19v12 416 Market street, San Francisco.

The Bank of California.
SAN FRANCISCO, MAY 9, 1866.
NOTICE.—AT A MEETING OF THE STOCKHOLDERS of this Bank, held on the 5th instant, it was resolved to increase the Capital Stock of the Corporation to $5,000,000, Gold, to take effect on the FIRST DAY OF JULY next, and the President and Cashier are authorized to receive subscriptions for $2,000,000 of said Capital Stock. Parties desirous of subscribing will make application at the Bank, either personally or by letter, when further details will be given.
D. O. MILLS, President.
19v12-1m W. C. RALSTON, Cashier.

Pacific Forge Company.
FORGING AND IRON WORK.
THE PACIFIC FORGE COMPANY HAVE JUST ERECTED, in this city, on Fourteenth street, near the machine shop of the San Jose Railroad, a large establishment for the purpose of forging and working in wrought iron. Our hammer is the largest upon this coast, and we are prepared to manufacture, at short notice, all kinds of heavy forgings, car axles, shafts, steamboat cranks, piston-rods, wagon axles, and other similar work. This is the first general shop of the kind erected in this State, and we solicit the patronage of the public. All orders executed at reasonable rates, and with promptness and satisfaction. 19v12-3m

To Ditchmen, Millmen and Others Requiring
IRON PIPE.
M. R. ROSE, CORNER OF 9TH AND K STREETS, Sacramento City, has facilities unsurpassed on this coast for the manufacture of IRON PIPE of every description. He also has on hand a deep well FORCE PUMP, of his own invention and manufacture, well adapted for oil wells. His tools being portable, pipe can be manufactured on the ground. 19v12

IT is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid.—[Nye County News

VOLUME TWELFTH.—The MINING AND SCIENTIFIC PRESS, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

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—FOR—
THE PEOPLE!
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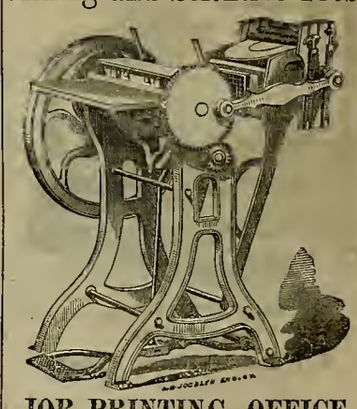

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CHEAP AND RAPID PRINTING.
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CERTIFICATES OF STOCK,
MISCELLANEOUS BLANKS,
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MINING BLANKS,
BOOKS,
PAMPHLETS,
CARDS,
CIRCULARS,
MINING REPORTS.
Orders from the interior will receive prompt attention. We shall take care to secure correctness in all work executed for parties out of town. Small packages can be forwarded by mail at small expense.
City customers, or persons visiting San Francisco, are invited to call and examine our specimens, when they will be politely informed of our prices by the Proprietors.
DEWEY & CO., Proprietors,
Mining and Scientific Press Patent Agency, Newspaper and Job Printing Offices.
505 Clay Street, San Francisco.
SAN FRANCISCO, April, 1866.
A. T. DEWEY. W. B. EWER. C. W. M. SMITH.

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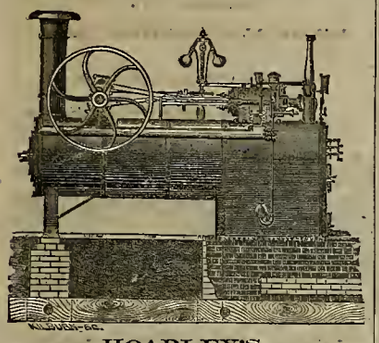

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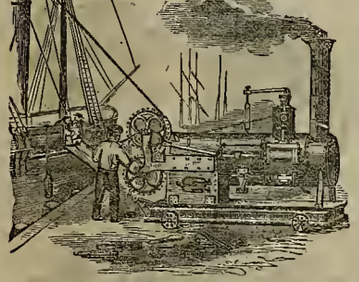

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Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

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Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
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The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.
S. P. KIMBALL, J. R. MURPHY.
10v10

Copper, Lead, Gold, Silver,
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The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to
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Agent for Townshend Wood & Co., Swansea,
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15v10-3m

ASSAY BALANCES,
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For sale low, by
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BOUGHT BY
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18v12-tf

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PURCHASE OF COPPER ORES,
Assaying eight per cent. and upwards of Copper to the
We will make advances upon Ores of Copper.
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Potassium, Magnesium,
And a fresh supply of
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Just received and for sale by
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Is prepared to buy in any quantity
COPPER, SILVER, GOLD, LEAD
AND OTHER VALUABLE ORES;
Also Lead Bars Containing Gold and Silver,
☞ Full value paid on delivery in this City. ☜
Address Lock Box No. 992, P. O., San Francisco. 25v10

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[Written for the Mining and Scientific Press.]

Auriferous Gravel Deposits.

MESSRS. EDITORS: While you are publishing much valuable information, regarding the more novel or attractive business of quartz mining, allow me to give your readers a few words concerning the gravel diggings of Yuba county, which may be considered as more or less representative of an important branch of mining in many other localities.

Eighteen miles northeast of Marysville, and one from Timbuctoo, at Smartsville, is located some of the best paying placer mines in the State. The mines are all gravel diggings, no quartz being yet found in the vicinity worth prospecting. So valuable are the mines now in operation, that all the attention is turned toward them, and all the interest is centered on the development of new mines of the same character. The rich pay dirt seems to extend through the center of a series of hills, a distance of a mile or more from point to point; lying along the bed of an ancient river, whose level line has probably been filled in by some great geological change. The local *savants* have passed their opinions as to probable causes for the deposits and formation, leaving the unbeliever to study out the evidence to the contrary for himself. There can be no doubt that the present mines occupy the bed of what was once a river, and that the rich deposits of gold are the result of years of washings from the surrounding hills and mountains, the gold being formed into, and held in the great natural sluice formed by the river bed. Every indication of the action of water, such as beds of pure sand in layers; conglomerate sand and gravel; smoothly washed boulders; deep washed lines in the bed rock; also immense quantities of vegetable matter in various stages of petrifaction are here, indisputable proofs of the early conditions of the present mine.

There is considerable irregularity in the general aspects, yet there seems to have been three different deposits of matter, all differing essentially from each other. The first is at the lowest point next to the bed rock, and consists of immense beds of conglomerates, made up of coarse gray sand and ordinary cobble stones. This contains the greatest quantity of gold, hardly a stone being displaced without showing the color. Next in the ascending series comes the blue gravel in great quantities, and very rich also in deposits of gold. This formation in quantity far exceeds the first named, and is the principal supply for the sluices. The third is the surface, also conglomerate of sand and gravel. It is red and rather badly decomposed, being easily broken in the fingers. This formation contains the color, but falls far short of the yield of the other two. This, with a large supply of water and ground would pay well for trouble and expense. The miners here do not take much pains with the surface, they simply crush enough from it to pay for the removal of the dirt in their descent to the lower and richer beds.

As the operations are the same in the various mines, a simple notice of one of the principal ones will give the reader a sufficient idea of the workings of all. The oldest and most valuable mine here is the Blue Gravel claim. This occupies the center of one of the hills, and is evidently in the center of the old river bed. It contains all three formations in almost inexhaustible quantity, as the level of operations descends, the results increase. Not only does it show more dirt, but also increased richness. From the top of the hill, to the lowest level, in a straight line, would measure several hundred feet, and so immense is the quantity of gravel that it promises to last for years to come, notwithstanding the vast amount daily washed off by the hydraulics and sluices.

The observer, for the first time, is struck with astonishment at the great amount of labor expended on this mine, to develop it to the paying point, and can hardly believe the evidence of his own senses, when he sees a vast hill center burrowed out, and millions of tons of earth removed in so short a time, (The working of this mine commenced in 1855). His idea of the force of water is made more comprehensive, when by a moment's watching he sees tons washed away while he expresses his astonishment. The present level of the mine some hundred feet below the surface line, was opened a few years ago by a tunnel, a half mile in length. Through this tunnel a flume has been constructed, running to the Yuba river a mile distant, through which all the dirt passes to the dump. This tunnel is a fine piece of work and shows what labor, when well directed, will accomplish. The timbering is

substantial, supports being placed only one foot apart. Throughout the entire length, the tunnel is cut through hard bed rock, and cost an immense amount of labor, time and money. It has been found necessary to open the mine still lower, and a new tunnel has been commenced sixty feet below the present one. The hydraulic power is well understood and applied at this mine. At one bank we noticed five pipes, with 3½ inch nozzles, playing at once. So great was their concentrated power, that huge stones were overturned, and twisted about as if they were chips.

As "the eating is the proof of the pudding," so is the yield of gold the proof of a mine, and in this direction we are not fearful of much criticism. The runs average thirty-five days, and each clean up generally amounts from $40,000 to $50,000. The last amounted to about $59,000, which would bring in a large yearly income to the owners. There are only 200 shares in this mine, and they are held by four persons: Mr. J. P. Pierce and A. L. Morrison of San Francisco, Mr. H. B. Simpson and D. McGanna of Smartsville. At one time there were a larger quantity of shares and number of shareholders, but discouragements on the part of some, and hopefulness on part of the others, concentrated the interests and reduced the owners to the present number. Not a great while ago, one owner's interest was sold for $1,100, the same now would bring five times that many thousand. The present condition of the mine dates from 1863, leaving all the years back to 1855, years of toil and struggle, with almost hopeless prospects at times, but success has blessed their labor and wealth flows into the owners' coffers in a steady stream of gold. W.

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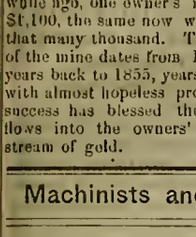

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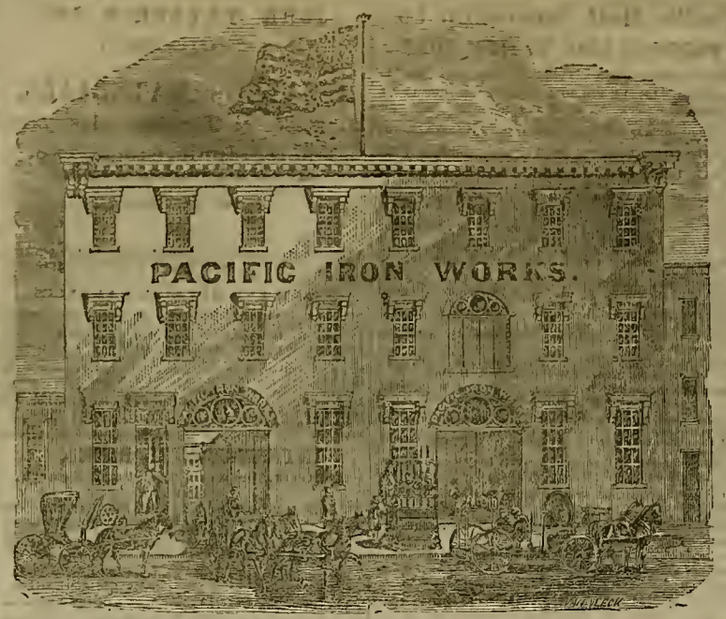

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ARCTIC INSURANCE CO., N. Y., Assets..... 700,000
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San Francisco March 6, 1865. 11v10-tf

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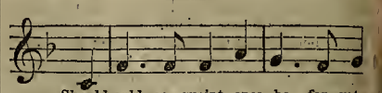

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Authors and Publishers.

BOUND IN CLOTH—144 PAGES, DUODECIMO.

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The work also contains an original and highly interesting discussion of the tractory and differently formed grinding plates, as applied to the reduction of ores—a subject not only of special interest to the scientific reader, but also practically of the highest importance to every quartz miner.

Professor Silliman, of Yale, and Hodgson, of the College of California, having examined this discussion, as submitted to them by its author, Mr. Randall, previous to the compilation of this work, speak of the same as not only mathematically correct, but also as of great practical value. Messrs W. R. Eckart, Jr., Engineer, (late of U. S. N.,) and W. M. Belshaw, assayer and superintendent of the S. T. M. Co., to whom the entire work was submitted while passing through the press, speak of the same as one of high practical importance to quartz miners and millmen generally.

No work has been offered to the mining public of California which contains so much valuable information, condensed into so convenient a space as is here presented. In its preparation, much care has been taken to secure brevity, concisenss, and simplicity—in fact to make it a complete and reliable QUARTZ MINER'S HAND BOOK.

The Table of Contents of this book will be found on page 415 of the MINING AND SCIENTIFIC PRESS of July 1st, 1865.

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The Press is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—Nyo County News.

J. B. Cone, Business Agency.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

New Mining Advertisements.

Continued Mining Advertisements will be found on another page.

Gold Hill Tunneling Gold and Silver Mining Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May, 1866, an assessment (No. 7) of one dollar per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, R. Wegener, 415 Montgomery street, San Francisco, California, or to the Superintendent, Mr. F. Chappellet, Gold Hill, Nevada.

Any stock upon which said assessment shall remain unpaid on the 15th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 10th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal.

A discount of three (3) per cent. will be allowed on all payments made on the above assessment on or before Monday, the 21st day of May, 1866. By order of the Board of Trustees.

my12 R. WEGENER, Secretary.

Kentucky Copper Mining Company, Mine Felix District, Calaveras County, California.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 2d day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Gage, J C	233	19	$10 00
Hoffmann, Victor	210	22	22 00
Keels, A E	22	50	50 00
Kunast, A	212	10	10 00
Kunast, A	220	5	5 00
Kunast, A	221	10	10 00
Kunast, A	272	10	10 00
Rudman, John	46	22	22 00
Schmidt, L C	24	10	10 00
Schmidt, L C	134	10	10 00
Schmidt, L C	156	5	5 00
Schmidt, P R	23	20	20 00
Schmidt, P R	104	20	20 00
Schmidt, P R	122	10	10 00
Schmidt, P B	155	10	10 00
Schmidt, P R	274	100	100 00
Schmidt, P R	276	25	25 00
Smith, Chas	60	50	50 00
Soehlke, J A	270	25	25 00
Wallace, John	241	20	20 00

And in accordance with law and an order of the Board of Trustees, made on the 21 day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Cobb & Sinton, No. 406 Montgomery street, San Francisco, Cal., on the 30th day of May, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. A. BAUER, Secretary.

Office, 644 Washington Street, San Francisco. my12

Mina Rica de las Flores Mining and Mill Company, Camp Flores, near West Point, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the eighth day of May, 1866, an assessment (No. 12) of one dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, S. Dickinson, at the office of the Company, No. 423 Washington street, Room No. 15, up-stairs, San Francisco, between the hours of 11 A. M. and 1 P. M.

Any stock upon which said assessment shall remain unpaid on the nineteenth day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the sixteenth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. DICKINSON, Secretary.

Office, 423 Washington street, San Francisco, Cal.
San Francisco, May 9, 1866. my12-6w

North Star Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

Notice.—There are delinquent, upon the following described stock, on account of assessment levied on the 9th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
John W Harker	380	6	$150 00
John W Harker	455	6½	162 50
G F Sharp	447	2	60 00
Mary F Breigo	243	4½	112 50
E B Goddard	251	9¼	231 25
J P Sharpstein	441	15	375 00

And in accordance with law, and an order of the Board of Trustees, made on the 9th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on Wednesday, the 6th day of June, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

GOTTLIEB BEER, Secretary.

Office, 226 Front street, San Francisco. my12

Rippon Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 8th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the company, 338 Montgomery street San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JAMES C. DAYLEY, Secretary,
Office, 338 Montgomery street, San Francisco, Cal. my12

Whitman Gold and Silver Mining Company. Location of Works: Indian Springs District, Lyon County, Nevada.

Notice is hereby given that the Annual Meeting of the Shareholders of the Whitman Gold and Silver Mining Company, for the election of Trustees and the transaction of such other business as may be presented, will be held at the office of the President of the Company, Charles Mayne, Esq., No. 525 Clay street, San Francisco, on TUESDAY, the 5th day of June, 1866, at the hour of 3 P. M.

Per order
THOS. W. COLBURN,
Secretary Whitman G. & S. M. Co.
San Francisco, Cal., May 12th, 1866. my12-4t

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Batopilas Mining Company, Batopilas District, State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of April, 1866, an assessment (No. 2) of twenty-five (25) cents per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 811 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 10th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 28th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.

Office, 811 Montgomery Street, San Francisco, Cal. ap7

Cosala Silver Mining Company, District of Cosala, Sinaloa, Mexico.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 24th day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Bayliss, J H	51	5	$ 5 00
Bayliss, J H	52	5	5 00
Bayliss, J H	54	10	10 00
Bayliss, J H	55	10	10 00
Bayliss, J H	56	10	10 00
Bayliss, J H	57	26	26 00
Bayliss, J H	58	40	40 00
Bayliss, J H	59	50	50 00
Bayliss, J H	60	50	50 00
Bayliss, J H	61	100	100 00
Bayliss, J H	62	100	100 00
Crowley, Timothy	566	11	11 00
Foote, F E (not issued)	556	20	20 00
Loney, Thomas	628	10	10 00
Nichols, A W	572	83	83 00
Rice, J M	488	5	5 00
Scholl, Michael	479	10	10 00
Scholl, Michael	480	10	10 00
Scholl, Michael	577	30	30 00
Toland, H H	105	123	123 00
Toland, H H	120	100	100 00
Woringen, L de	542	25	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 24th day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the auction room of Maurice Dore & Co., 327 Montgomery street, San Francisco, Cal., on the 12th day of May, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHAS. BAUM, Secretary.

No. 510 Battery Street, opposite the Custom House, San Francisco. ap28

Capitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 30th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, or to E. H. Swarthout, Treasurer, San Jose, California.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

D. R. BECKFORD, Secretary.

Office, 731 Clay street, San Francisco, Cal. my5

Dios Padre Gold and Silver Mining Company, Alamos, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of April, 1866, an assessment of three dollars per share was levied upon the capital stock of said Company, payable on the 29th day of April, 1866, in United States gold coin, to the Secretary, E. C. McComb, No. 1 Government House, corner Sansome and Washington streets, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 5th day of June, 1866, will be advertised on that day as delinquent, and unless payment shall be made before, will be sold on Saturday, the 23d day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

E. C. McCOMB, Secretary.

Office, No. 1 Government House, corner Sansome and Washington streets, San Francisco, Cal. my5

Evoca Consolidated Copper Mining Company. Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May, 1866, an assessment of twenty-five cents per share was levied upon the assessable capital stock of said company, payable May 12th, 1866, in United States gold and silver coin, to the Secretary, C. E. Abbot, or to A. E. Thayer, at the office of the Company, at No. 532 Merchant street, room No. 3, in the city and county of San Francisco, State of California.

Any stock upon which said assessment shall remain unpaid on the 6th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. E. ABBOT, Secretary.

Office, No. 532 Merchant street, room No. 3, San Francisco, California. my5

Great Bueln Mining Company.—Location of Works: Humboldt County, Nevada. Office, southeast corner of Pine and Montgomery streets, San Francisco, California.

Notice is hereby given, that at a meeting of the Trustees of said Company, held May 2d, 1866, an assessment of nine cents was levied upon each and very share of the capital stock of the said company, payable immediately, in United States gold coin, to the Secretary, at his office, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale, at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

S. T. KING, Secretary *pro tem.*,
Office, S. E. corner Pine and Montgomery streets, San Francisco. my5-5w

Green Gold and Silver Mining Company. Location of Works and Mine: Cold Hill District, Storey County, Nevada.

Notice.—The Annual Meeting of the Stockholders of the above Company, for the election of Trustees, etc., will be held on WEDNESDAY, the 6th day of June, 1866, at 12 o'clock M., at the office of the Company, No. 600 Montgomery street, San Francisco. Proxies to be filed with the Secretary. JOHN HENDERSON, President.

R. H. Smith, Secretary. my5

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County Cal.—Assessment No. 11.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the Office of the Company only.

Any stock upon which said assessment shall remain unpaid on the 12th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. ap14

Postponement.—The advertisement of stock delinquent on the above assessment, is hereby postponed until Saturday, June 9th, 1866, and the sale thereof until Tuesday, June 26th, 1866. By order of the Board of Trustees.

ap28 W. D. ROOT, Secretary.

I. X. L. Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 5th day of April, 1866, an assessment of one and a half dollars per share was levied upon the capital stock of said Company, payable immediately in gold coin of the United States of America, to the Secretary, at the office of the Company, No. 338 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 17th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 7th day June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary,
ap14 No 338 Montgomery street, San Francisco.

Kenkuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on the 18th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 4th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. B. WINECAR, Secretary.

Office, 308 Front street, San Francisco. ap21

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary, C. Heywood, 311 Market street, San Francisco, or to G. W. Russell, Crescent City.

Any stock upon which said assessment shall remain unpaid on the 9th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 28th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. HEYWOOD, Secretary.

Office, 311 Market street, San Francisco, Cal. my5

Nuestra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico,

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. Pfeiffer, at the office, No. 210 Post street, (in the Drug store, near Dupont,) or to the Treasurer, A. Hinkelmann, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 2d day of June, 1866, and unless payment shall be made before, will be sold on the 20th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug store, near Dupont street,) San Francisco, Cal. ap28

North Star Gold and Silver Mining Company, Reese River Mining District, Lander county, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 9th day of April, 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately to the Secretary, Gottlieb Beer, No. 226 Front street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 14th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 6th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

GOTTLIEB BEER, Secretary.

Office, No. 226 Front street, San Francisco, Cal. ap21

Salamander Gold and Silver Mining Company, Salamander Creek, Calaveras County, Cal.

Notice.—The regular annual meeting of stockholders of the said Company, to elect the officers for the ensuing year, will be held on MONDAY, the 21st day of May, 1866, at 8 o'clock, P. M., at the office of the Company, No. 210 Post street (in the Drug store, near Dupont street). By order of the Board of Trustees,

E J. PFEIFFER, Secretary.

San Francisco, May 2d, 1866. my5-2t

Simpson & Bosselle Mining Company.—Mines located in Carson Valley.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 20th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable on the 30th day of April, 1866, in United States gold and silver coin, to the Secretary, or to Dr. J. W. Watkins, Markleeville, Cal.

Any stock upon which said assessment shall remain unpaid on the 25th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 14th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. BIBBINS, Secretary.

Office, 305 Montgomery street, San Francisco, Cal. ap28

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

Sierra Valley Gold and Silver Mining Company, Plumas County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 26th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately, in gold coin of the United States of America, to the Secretary, at the office of the company, No. 607 Washington street, in the city and county of San Francisco, Cal

Any stock upon which said assessment shall remain unpaid on the 31st day of May, 1866, will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 18th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. apr28

United States Mining Company.—Location: Virginia District, Storey County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of April, 1866, an assessment of one dollar per share was levied on each and every share of the capital stock of said company, payable immediately, in gold coin of the United States, to the Secretary, at his office, or to Dr. T. H. Pinkerton, South B street, Virginia, Nevada.

Any stock upon which said assessment shall remain unpaid on Saturday, the 26th day of May, 1866, will be advertised as delinquent, and unless paid, will be sold on Wednesday, the 13th day of June, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

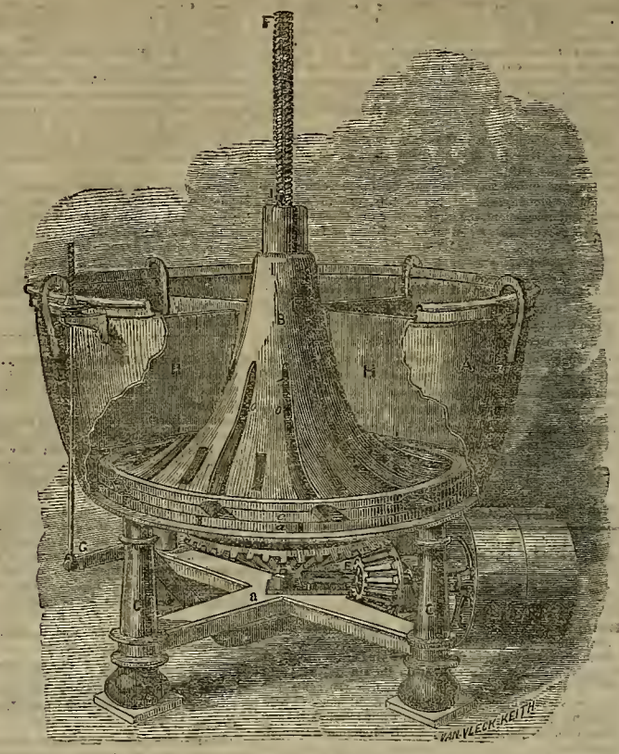
Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. ad21

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

Money by Mail.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid.

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,



The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

[Written for the Mining and Scientific Press.]

From El Dorado County.

BY OUR TRAVELING CORRESPONDENT.

Messrs. Editors: After leaving Placerville, the county seat and center of the great mineral belt of El Dorado, I first visited the mills and the mines, situated on a series of parallel lodes to the south, believed by many, from the striking similarity in the quartz and other characteristics, to be on a range with the celebrated Eureka mine of Amador; some of the veins giving marked evidence, both on the surface and at the greatest depths attained, of being at least as highly auriferous, with many signs of permanence.

The first in this direction was

THE MITCHELL,

Owned by Capt. J. D. Woodworth & Co., two miles south of Placerville and one east of Diamond Springs. The lode commences on the surface with a width of eighteen inches, and at the bottom of a shaft seventy-five feet deep, has gradually grown to four and a half feet, and even from wall to wall. An incline is now under way to strike the vein forty feet below water level and 250 feet beneath the surface of the over-lying mountain. This location is one of the oldest in this part of the county, and is said to have averaged at one time about $85 per ton of quartz, which is considerably impregnated with pyrites and streaked with seams of black shale, showing free gold at every degree of depth attained. The work is now being pushed forward with energy and determination under the charge of Capt. Woodworth, who informed me that a 20-stamp mill had been ordered for the mine.

Such are the prospects, that many locations have been made on the extensions or on parallel lodes, some of which are worked with vigor, and although giving excellent indications, we are compelled to pass with a mere allusion.

The next in order on the line of the supposed mother vein, deemed worthy of a special notice, is

THE ROGERS,

Not so much from the amount of work in the way of development, as from the character of the quartz and other marks, indicative of a permanent and valuable mine. It is two miles southerly from Diamond Springs and one north of the Union mill, and has been opened at several points along its entire length of 3,000 feet, showing a well-defined lode at the depth of fourteen feet, from three to four feet in width, with a gouge of decomposed shale on the foot wall, the east or hanging wall being of greenstone. The quartz is what is here denominated the ribbon species, from the dark colored seams that run in horizontal layers through it, occasionally assuming the form of parallel waves. Little or no free gold can be seen with the eye, but the rock works about $9 per ton in the arastra, built on the claim, exclusive of what is contained in the sulphurets which are worth $200 and upwards per ton. As it takes about twenty tons of the quartz to produce one ton of the sulphurets, it has been calculated, there will be a return from both sources of from $18 to $20 per ton, which will afford a handsome interest on the amount invested. Messrs. DeWolf and Baker, of the village of El Dorado, having recently purchased the remaining interests, are now the sole owners, and are determined to carry forward the work without delay, encouraged not only by the success of the past, the claim being self-sustaining, but rendered hopeful for the future in view of the many indications of permanence in the character of their lode, as well as by the strong probabilities of a gradual increase in the value of its ores in the progress of development.

THE SPANISH,

A quarter of a mile east, encased in slate, is owned chiefly by these same gentlemen. The vein averages two and a half feet in thickness and contains much free gold; in certain portions being exceedingly prolific, 500 lbs. of ore assorted, yielding at the rate of $4,000 to the ton. Such has been its richness, that its

Machinery.

SAVE YOUR MONEY AND BUY,

For $100!

HUNTER'S

Premium Cnocentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

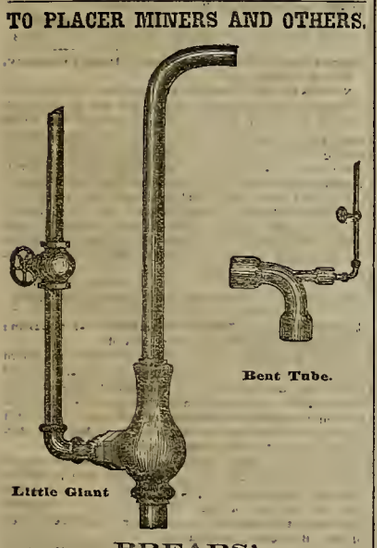
THE ABOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 135 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent. more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 118 Washington street, below Davis, where Alsear Jacobs will fill their orders promptly.

ANDREW HUNTER,
17v12-tf Inventor.

TO PLACER MINERS AND OTHERS.



BREARS'

Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 320 Pine street.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 245 First street, San Francisco.

LIST OF PRICES:

Little Giant.		Bent Tube.	
Brass	$65	Iron, 4 in. di	$100
Iron	50	" 3 in. di	75
		" 2 in. di	50
		" 1½ in. di	35
		Brass, 1 in. di	25

13-v12

PETROLEUM STOVES.

A MOST USEFUL INVENTION FOR ALL manner of COOKING and for IRONING, without any litter, ashes or soot. Cheap and convenient, and peculiarly suited to the wants of this community.

Cooking by them is divested of its disagreeableness, and becomes a pastime, as many can testify, who have used them in this city. To be seen at

316 Montgomery street,

Where they are for sale by

BULLARD & BATTLES,
Proprietors for California.

San Francisco, March 3d, 1866. 10-v12

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 DEVOE, DINSMORE & CO.

LEFFEL'S

American Double Turbine

WATER WHEEL.

THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction wherever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall. Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

KNAPP & GRANT,
—ALSO—
San Francisco.

Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind.

For sale by KNAPP & GRANT,
12v12-3m San Francisco.

Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK, EMbracing all Modern Improvements, suitable for Mining, Milling, or other purposes. Will be sold at Manufacturers' rates and charges.

Apply to A. E. CRANE,
16v12-3m 310 Washington Street, up stairs.

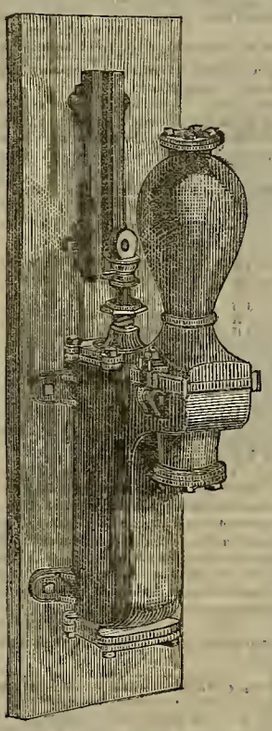
FOR SALE
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
25v11tf 311 and 313 California street.

Six-Inch Mining Pump.

THE HANSBROW PATENT PUMPS!



Warranted the Best Pumps Offered. All Sizes for Any Purpose.

FOR SALE BY

JOHNSON & CO.....Grass Valley, Cal.
CRAWFORD, LEAVETT & CO.....Nevada, Cal.
GEORGE E. TURNER.....Nevada, Cal.
JACKSON & BLISS.....Stockton, Cal.
FRANCIS SMITH.....Austin, Nev.
THOMAS HANSBROW.....Sacramento, Cal.

And Hardware Dealers Generally.

WHOLESALE AGENTS:

LOCKE & MONTAGUE,

112 and 114 Battery street, San Francisco.

Send for Catalogue and Price List. 16v12-1m

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self-acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,
Virginia City, Nevada.
15v11tf Through Wells, Fargo & Co's Express.

entire length near the surface, has been worked off by the Spaniards of the neighborhood, and like the preceding claim, has thus far paid all expenses incurrent in sinking and tunneling, —no bad indications of a good mine.

The next claim appearing on the line of this range, is that of

THE CHURCH UNION GOLD COMPANY,

About three miles from El Dorado, and six from Placerville, where, as also throughout the county, it stands in good repute, and consists of two principal lodes, the Union and the Cosumnes, which probably intersect somewhere near their present works, and contain in the aggregate about 7,405 feet. A new engine of 30-horse power has been ordered for the purpose of sinking a perpendicular shaft at their point of intersection, whence drifts can be run in all directions upon the different veins, through which an immense amount of ore can be hoisted with little labor and comparatively small cost. The company own in the neighborhood of the mine 360 acres of wood land, and have erected a large boarding house, blacksmith shop and one of the most finished mills on the coast, together with a 45-horse engine of 12-inch bore and 24-inch stroke, saying nothing of pans and concentrators. The mill of twenty stamps, 650 lbs. each, and the whole machinery attached, were built at the Vulcan Iron Works in San Francisco, under the immediate supervision of Mr. J. T. Babcock, a practical machinist and experienced miner, and who at the same time having seen service in the mint, must be admirably fitted for the position he now fills as superintendent. Some of the internal arrangements about the mill, which are his, in plan as well as in execution, appear worthy of notice from their simplicity and convenience. A platform surmounted by steps encircles the battery at an elevation of ten feet from the ground floor, and nearly opposite the cams, from which the whole of the works can be very conveniently overlooked or superintended; the stamps, also, by a very simple arrangement, being instantly and simultaneously put into gear and as readily thrown out, by means of a lever connected with certain little props which rest with one end on the platform, and the other against the cams. For amalgamating inside the batteries, copper plates are used four feet by six inches, and are set at a particular given angle, found by the superintendent to be the best possible for the greatest percentage of gold.

The pulp is discharged from the batteries through a perforated screen of Russian iron, containing 250 holes to the square inch, and then passes over three step copper plates, four feet two inches by seven inches. It thence falls from the screen in the form of a shower into a box of mercury, seven inches square by nine in depth, containing about thirteen pounds of the quicksilver and filling it to the hight of one inch, on a level with the discharge, which runs directly through copper plated troughs into the concentrators. This mercurial bath, as it is here called, while its cost is almost literally nothing, has worked very successfully and is looked upon as another step in the way of progress.

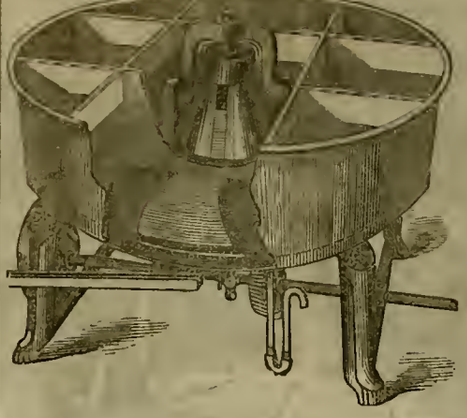
Mr. Jessup, the agent and correspondent of the company, informed me that the superintendent had also been very successful in the use of sodium in amalgamating, not only within the batteries, but also elsewhere whenever used, both of whom testified in its favor and took the greatest possible pains to point out to me its advantages, as well as to explain the minutest particulars in regard to the various machinery, even to the details of their operations. We close our description of this mine by a brief notice of the two principal veins. The Union varies much in thickness, having an average of perhaps eight feet, and a shaft upon it of about 200 feet. The quartz contains a good deal of free gold, and is interspersed liberally with the small black sulphuret of iron. The Cosumnes is considerably smaller than the other but far more uniform, and has a layer of black clay as a "gouge" on the hanging-wall. The veinstone shows less free gold and fewer sulphurets, and is said by Prof. Silliman to have "a remarkable resemblance to the well known Princeton vein," both as to appearance and contents, the quartz being more streaked than that of the Union with seams of black shale, while the walls of each, as you may have inferred, are of black slate. More need not be added in regard to a mine from which several fortunes have been already realized, having yielded since its location not less than $1,000,000. In 1864 Prof. Silliman made an examination of it, and also a report, whereupon it was purchased by his brother-in-law, Mr. Church, the president of the company, and other New York capitalists, and incorporated with a capital of $1,200,000, $200,000 of the stock being appropriated as a working capital and consequently leaving the shares free from assessments. PROSPECTOR.

[Concluded next week.]

A SCHOOL for colored children has been opened at Red Bluff. Miss Sarah Brown, daughter of John Brown, is teacher.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of EIGHT YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of ISRAEL W. KNOX, OR W. A. PALMER, Inventors,

14v13-p12q At the Golden State Iron Works, No. 19 First street, San Francisco.

HEUSTON, HASTINGS & CO.,

—THE—

FASHIONABLE CLOTHIERS

OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLES

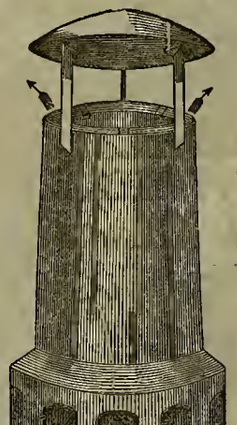
—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12-3m ☞ At Reduced Prices. ☜

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE FOR STATES, TOWNS AND COUNTIES.



For the Best Chimney Top

Ever invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel.

Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee, B. A. HENRIKSEN,

Or J. E. JOERGENSEN,

12v12-3m No. 328 Kearny street, San Francisco.

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.

15v12-3m

BAUX & GUIOD S

Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jefferson Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

Prater's Concentrator.

NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Dinsmore's Machine and Iron Works.

SAN FRANCISCO.

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

Address: MORGAN HUNOERFORD,

10-v12 San Francisco, Cal.

IRON!

Glasgow Iron and Metal

IMPORTING COMPANY,

Nos. 25 and 27 Fremont street, San Francisco,

Keep constantly on hand a large assortment of

Bar Iron,

Boiler Tubes,

Anvils,

Cast Steel, Etc.,

Which they offer to the trade on liberal terms. 18v12-3m

NEW MINING PUMP.

Excelsior Double-Acting Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865,

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind-mill, horse, or steam-power.

No. 1—Cylinder 2¾ in., stroke 6 in.
No 2—Cylinder 3 in., stroke 7 in.
No. 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No. 5—Cylinder 6 in., stroke 18 in.
The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,

12v12-3m 120 Front street.

VARNEY'S PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setlers for themselves, at the PACIFIC FOUNDRY,

1v1 San Francisco.

BLAKE'S QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address, BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.

4v10

CALIFORNIA BUILDING AND LOAN SOCIETY

Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING and LOAN SOCIETY, announce to the public the removal of their business to their

NEW BANKING HOUSE,

California Street, one Door from Sansome.

LOANS.

The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
Second—The Erection of Houses.
Third—The Erection of Manufactories.
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

MONTHLY DEPOSITS.

ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

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Napa City, May 9th—Messrs. Dewey & Co., Patent Agents, San Francisco: Yours of May 7th is at hand. I am pleased to hear of the receipt of our caveat papers at the U. S. Patent Office, Washington, D. C. You have my fullest thanks for your energetic movements concerning the same. Respectfully, yours. W. W. Levering.

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Endorsement by the Miners' State Convention.

The following resolution was adopted by the California Miners' State Convention, held at Sacramento, Jan. 17th, 1866:

Resolved, That we regard a mining paper or journal of great importance to the mining interest of California, and we recommend the Mining and Scientific Press, of San Francisco, to the consideration and support of the miners of the Pacific coast.

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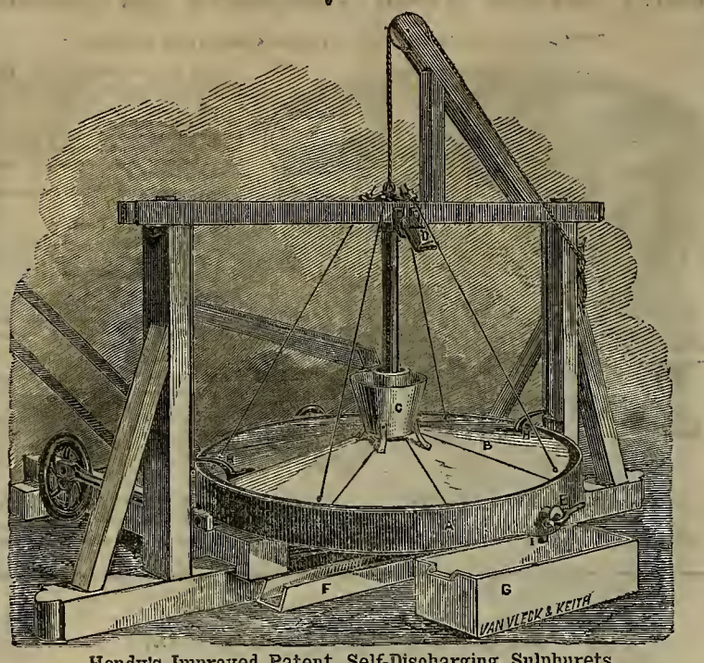

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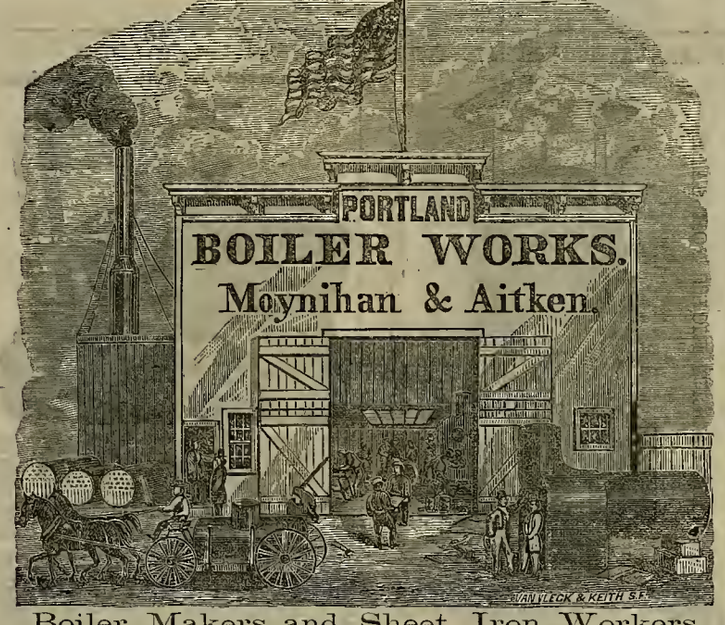

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California Academy of Natural Sciences.

REGULAR MONTHLY MEETING.

MONDAY, May 7th, 1866.

President in the Chair.—The Committee on Rooms reported that the new room in the banking building, southeast corner Montgomery and Sacramento streets, would be ready for occupancy by the next meeting.

Donations to Cabinet.—Mr. Harford presented, through Dr. Kellogg, specimens of the "ivory nut" from Panama.

Dr. Gibbons made some interesting remarks in connection with a series of tables exhibiting the variations of rain fall, and their parallelism with the phases of the moon; showing that the greatest fall of rain took place immediately before the full moon, and that following the day of the full the diminution in quantity was very rapid. The observations from which the tables were prepared extend over a period of fifteen years.

Sundry bills were approved and ordered paid. Meeting adjourned.

W. H. DALL, Secretary *pro tem.*

W. FRINK, of Virginia City, Nevada, has sent us some very beautiful specimens of *fungi*, taken from a tunnel near Virginia City. They have been received in excellent order, and will be submitted to some competent naturalist for a thorough examination. We are inclined to think our correspondent's views with regard to the generality of "vegetable impressions" are correct.

THE PACIFIC FEMALE COLLEGE, Oakland, closes the present term with examination exercises, commencing on Monday next. The valedictory of the graduating class will be read by Miss Fannie A. Williams, on Wednesday evening, at the College of California, Oakland.

MAJ.-GEN. W. S. ROSECRANZ.—We are glad to notice the arrival of this distinguished and honored gentleman. As a talented engineer and practical and scientific mineralogist and metallurgist, his presence bodes much good among us.

BRASS CANNON.—W. T. Garratt, of this city, has just completed two fine pieces of brass cannon, at his Foundry, on Market street. They are for the Buckley Telegraph Expedition.

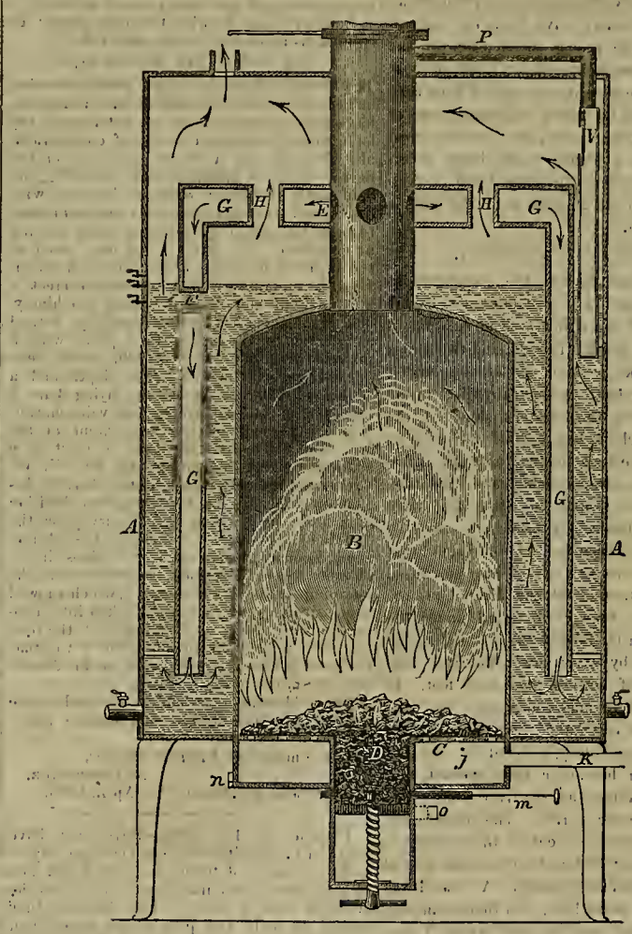
THE MINERAL from our friend W. S. G. has been subjected to three several assays, each time showing gold. A private letter will further explain.

THE FOSSILS from Capt. Faul have been received, and will be further noticed hereafter

THE GEOLOGICAL QUERIES of our correspondent "F. A. H.," will appear next week with comments

HOWELL'S STEAM BOILER.

Careful experiments have proven that there is sufficient power generated by the combustion of one pound of coal, according to its quality, to raise from six to twelve millions pounds one foot high in one minute. Of this immense force or power only from two to seven hundred thousand pounds are economized in steam engines by the use of boilers and engines as now constructed—that is, only about *five per cent.* of the actual amount of power generated! A vast field for improvement is here opened to the genius of our mechanics; and various modifications are from time to time put forth to still further economize this enormous waste of power. All such modifications and improvements are received with a great degree of interest by the mechanical world. We give annexed an illustrated description of one of the most recent, and a very ingenious invention, having this end in view.



HOWELL'S STEAM BOILER.

The air to support combustion is forced in beneath and through the grate, against pressure, by a cylinder blower; and the chief novelty consists in a conductor so constructed that through it passes all the heat which is not absorbed through the sides of the fire-box by the water surrounding it. The heated products of combustion are driven through it and discharged into the water near the bottom. The ashes and particles of grit which pass over into the water, become wet, and remain at the bottom, leaving whatever is valuable to raise and mix with the steam, and contribute to the motive power.

Another novelty consists in the manner in which the fuel is supplied. It is brought up from beneath, through the grate to the fire, instead of being thrown upon the surface, which will insure a more thorough combustion. The boiler is cylindrical in all its parts. The accompanying engraving represents a vertical section, and is described as follows in the *American Artisan* of February 7th, 1866:

A is a plain shell; B is the fire-box, extending through and below the bottom of the shell, to make an ash-pit, *j*; E is the flue passing from the top of the fire box through the head of the outer shell, and closed at the top by an air-tight slide; G is the conductor, through which all the heated products of combustion are conveyed downward into the water; it is formed by two concentric cylinders attached by their heads to the flue, E, at the point, E. A number of openings are made in and around this flue at E, making a free communication between this conducting space, G, and the fire-box, B. The conductor, G, is also open at the lower extremity. A number of tubes, a short distance apart and a little below the water-mark, connect the parallel cylinders, and pass through this conducting-space, as shown at F. A few also pass through the heads, as at H. C is the grate; K is the tube through which the air is driven by the blower, to support combustion; D is a tube for supplying the grate with fuel, in which is a piston, moved up and down by a screw from beneath. The water occupies the circular space between the fire-box and the outer shell, and rises high enough to cover the top of the fire-chamber.

In starting the fire, the piston, in D, is run down to the bottom of the tube; the slide at the top of the flues, E, is drawn, and the ash-pit door, at *n*, is opened, to admit air beneath the grate. A natural draft is thus obtained to start the fire. The fuel is supplied through a door, connecting the shell with the fire-chamber on a level with the grate; but not shown in the figure. At the same time the feed-tube, D, is filled with fuel. As soon as the water is sufficiently heated to produce steam freely, the slide at the top of E is closed, as in the figure, also the fire-box door, and the door at *n*. Air to support combustion is then forced through the tube, K, into the ash pit, *j*, and up through the grate. There being openings through the upper part of D to admit air, the coal immediately over it will burn equally as well as that upon the grate. The heat which is not absorbed by the water immediately surrounding the fire-chamber, B, rises with the gaseous products of combustion into the tube, E, passes through the openings into the conducting-space, G, forces downward and expels the water, which up to this time has filled the lower part of this space as far up as the water-line, and finally escapes at the lower end into the water itself, as indicated by the arrows. From this arrangement it is evident that all the heat is retained by the water. All ashes and particles of grit that are discharged through the conductor into the water become saturated and remain at the bottom, and can be discharged through blow-off cocks.

The piston, in D, is raised when additional fuel is required, until it has reached its position in the figure. If more is needed, the air-tight slide, *m*, is closed, the piston run down, the air-tight door, *o*, is opened, and through it the tube, D, below the slide, is filled with coal. The door, *o*, is then closed, the slide, *m*, is drawn out again, and the fresh coal is run up into the fire. Should the blower be stopped for any considerable time, and a leakage of air occur, the steam pressure might exceed that within the fire-chamber, and cause the water to return through the conductor, G, enter the tube, E, and extinguish the fire. To prevent this, a tube, P, leaves the flue, E, above the head of the boiler, and enters the steam space, and continues down nearly to the bottom through the water between the conductor and the outer shell. Its lower end is open. In this tube, in the steam space, is an opening, covered by a suspended valve, V. While the pressure is equal it remains closed, and prevents ashes, etc., from entering the steam spaces. When the steam pressure is in excess, it opens and allows the steam to pass through the tube into the fire-box, to equalize the pressure.

COAL OIL is a better article for preserving sodium and potassium than naptha. In coal oil, sodium keeps its luster for months and years, whilst in the purest naptha it is dimmed in a few days.

WE THANK the Monitor *Gazette* for the compliment which it pays us; but would say it is impossible for us to mail our exchanges any earlier.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

Letter from Professor Brewer.

Editors Press:—A course of lectures to mechanics has just closed here, that has proved such a success that some notice of it may suggest thoughts of value to your readers.

The past winter the Professor in the "Sheffield Scientific School of Yale College" instituted a course of lectures for the especial benefit of the mechanics of this city. The largest lecture-room in the institution accommodates but two hundred persons, and so but that number of tickets were issued at the merely nominal price of one dollar for eighteen lectures. There were applications for more than twice that number of tickets immediately, but, of course, the accommodations forbids a larger issue.

The lectures were delivered by the Professors in the school, on two evenings of each week, commencing in January, and closing a week ago. The attendance was almost entirely from the class for whom the course was especially designed, and the interest was unabated to the close.

Each evening brought an intelligent, earnest and most attentive audience. As an experiment, the course was an entire success. The lectures were upon various subjects, rather than a continuous course on one science. Chemistry came in for the largest share, three Professors taking separate branches—one considering the subject of chemical affinity in two lectures; another devoted four lectures to the chemistry of the air, water, carbon and fuel; and another two lectures, on the smelting of iron and steel. In all eighteen Professors took part, and the following subjects received each a lectur: "Relation of Science to the present state of the Arts;" Architecture; Mechanical Drawing; Silkworms; Insects Injurious to Timber; California; The History of Writing; Perpetual Motion; Fungi pernicious to Vegetation, and Grape Culture in Gardens." All of the lectures, except three, as will be seen from the list, were upon some science of especial interest in the arts, or in practical life. They were properly illustrated by experienced specimens, diagrams and drawings, the institution being very rich in the means for such illustration.

Of the practical value of such lectures there can be no doubt, and it is the intention to continue them in future winters. Probably, however, in future, the course of any one winter will not be scattered over so wide a range of subjects, but be more full on some one or more of the sciences; but circumstance and experience will, of course, determine the plan to be pursued.

The deep interest taken in the subject the past winter by those for whose especial benefit the lectures were instituted, the many practical questions they proposed from time to time, and the uniformly good attendance, indicate the practical value of such means of instruction to adults. I have no doubt but that similar courses, or, at least, courses with similar aims, could be instituted in San Francisco, if a few moving spirits would work in the matter. Many of your practical mechanics could themselves enlighten an audience on the science and technicalities of their own craft. Information could thus be disseminated, more exact knowledge be brought to bear in the various branches, and the public would be generally benefited.

There is quite a *furore* now for *mining schools*, so called, in the colleges and higher schools East. I cannot enumerate the institutions that pretend to give more or less instruction in matters relating to mining and metallurgy; not only in the professedly "mining schools," but in the scientific departments of colleges, technical schools, etc. I notice even in one *agricultural* school, that of Pennsylvania, more students chose theses on mining than on agricultural subjects, judging from their published reports. How many of these beginnings will develop into full-fledged "Mining Departments," time can only determine.

The spring is late; or I might say that "winter" lingers in the North yet. We had snow here yesterday, while in the interior of New York, and in the northwest, much snow still remains, and streams that usually open earlier than this are still ice-bound.

Yours truly,
Wm. H. Brewer.
New Haven, Ct., April 10, 1866.

[Written for the Mining and Scientific Press.]

From El Dorado County.

BY OUR TRAVELING CORRESPONDENT.

[Continued from Page 303.]

THE NEW YORK AND EL DORADO G. M. CO.

Claim some 600 acres of timbered land, and a series of seven parallel lodes, one mile to the south of the Church Union and on the same range. Several of them have been opened by tunnels or shafts, the aggregate length of the former being about 400 feet, the greatest depth of the latter about forty feet, and exhibit the usual direction from south to north, together with the eastern dip. Three or four of their ledges, believed to be the best, and one of which is the continuation of the McNulty that paid some $40 per ton, lie along a lofty mountain ridge, and are to be cut at a depth of some 500 feet by a tunnel already commenced, and to be extended fully 800 feet. Near the mouth of this tunnel a 10-stamp mill has been erected, together with an engine of 75-horse power, put up in the best possible style by Capt. J. D. Woodworth of the Mitchell mine.

Considering the number of lodes to be opened, the machinery necessary, and the immense amount of labor to be performed before an enterprise so vast, and such as the original projectors must have had in contemplation, can be brought to a successful issue, it is very apparent that the superintendent has labored under great disadvantages, however enterprising or economical he may have been, for want of the means for the proper prosecution of the work. It is thought here that $7,000, in connection with the advantages derived from cash payments, would be barely sufficient, however judiciously handled, to put the mine into good shape, and on a paying basis, large undertakings requiring proportionally large outlays. In fact, the mill can do little until the mine is properly opened.

THE LEONARD G. M. COMPANY,

Crossing the north fork of the Cosumnes at Nashville, where it has a course nearly due north and south at a point three miles south of the New York and El Dorado, and two miles above the Forks, we find one of the largest blows or chimneys to be found anywhere in the county, or along the western slope of the Sierra. This claim was located as early as 1850, and at one time supplied as many as five mills with rock. In consequence of litigation and other causes similar to those that have operated so disastrously elsewhere, they all have long since suspended. I understand that all conflicting titles having been now purchased by Mr. E. W. Leonard of San Francisco, the company have been re-organized under the above title, and intend erecting a 20-stamp mill to be propelled by water power, the river having here a fall of not less than sixty feet. In this connection we might also state that the company own a very large river claim of 3,000 feet—ground previously covered by the old mill dam which has never been worked, and deemed very valuable as the river above and below was exceedingly rich. The quartz mine was at first opened by a cut on the chimney to the depth of sixty feet and covering an area of over one hundred feet square. A tunnel was then driven in to the lode, and thence through it to the east and hanging wall, which is said to be of granite. From a point on this tunnel near the west wall, which is, on the contrary, a black slate, a shaft was sunk, following the lode to the depth of 100 feet, or to about eighty feet below the channel of the river. From this level for a distance of 300 feet north, the vein has been stoped out upwards to within a few feet of the surface. Since the re-organization of the company, a new tunnel has been run in from the west, and at the southern extremity of the claim, the distance of some 200 feet, which, at a point 145 feet from the mouth, struck or rather passed through a most beautiful "gouge" of black vein matter upwards of fifty feet in thickness, composed principally of quartz somewhat decayed and fissile with a considerable intermixture of black clayey shale, containing a good proportion of the small irregular dark-colored iron sulphuret, to whose decomposition taken in connection with that of the black slate, the portion of the lode may to some extent, at least, be indebted for its peculiar sooty color. Mr. O. P. Hart, to whom I am indebted for most of the facts herein noticed, and who has full charge at present of the mine, assured me that the whole and somewhat decomposed mass turned out by mill process at the rate of $20 to $30 per ton. Lying next to this, going eastward, is what they here term, the true vein of ribbon quartz, at this point three and a half feet, and widening at the depth of 100 feet to not less than six feet, and said to bear a very striking likeness to the rock of the celebrated Hayward mine, distant only twelve miles south in the county of Amador. One ton, sent to San Francisco as a test, worked also by mill process $26.75, so that there can no longer be a question, as to the extent, stability and richness of the mine.

As still further evidence of its value, prospecting almost incalculably (if confirmatory testimony were needed), a communication has been recently made from the point where the new tunnel cuts this vein, with the upper level of the old works, thus demonstrating with almost mathematical precision from *actual measurement*, that some 12,000 tons can be immediately stoped out from this new level with no other labor than quarrying and hoisting, which at the rate of $25 per ton will yield the moderate little sum of $300,000.

Having now crossed the whole of El Dorado from Volcanoville on the north to this point, on or near her extreme southern boundary with facts as to her mineral resources ever accumulating along our path, we must say that *this mine alone*, excluding all others, however promising or valuable, ought to be sufficient to redeem her somewhat tarnished reputation as it respects the quartz interests, and place her name hereafter in the same catalogue with her better developed and more courted sisters.

Before closing, we wish to allude briefly to two claims adjoining on this same lode.

THE GORDON AND MONTEZUMA,

The former of 3,000 feet, first south extension owned by prominent parties in San Francisco, has a prospecting shaft on an outcrop of the lode, where it crosses a summit of considerable altitude, and also a tunnel entering on the north side of the mountain, and following the vein south, showing a width of six feet, with quartz and other characteristics similar in most respects to those of the Leonard, a fact needing no comment. The latter being next north of the Leonard, has lately come into the hands of English capitalists, who are about to erect a 20 stamp mill and other necessary machinery. The Montezuma has been successfully worked at intervals for the last thirteen years with a probable yield of about $150,000, having been opened by a shaft of 105 feet in depth, and a tunnel of 170 feet in length, laying bare a thickness of at least five feet of vein matter, that pays throughout the whole extent of the lode from $18 to $20 per ton. I must here acknowledge my obligations to Mr. W. W. Cromartie, the only representative here of his London associates, for his courteous exhibition of a map, made from actual survey for the benefit of his company, embracing the Montezuma, Leonard, Union and other mines in El Dorado herein described, together with the more important ones of Amador, which showed conclusively, (especially when taken into connection with the general similarity of the rock and other indications already alluded to), that the great gold range could not be far distant from the mines of this vicinity.

The gold and copper claims, situated to the west of those now noticed, will receive attention in our next.

In the meantime I remain, as ever,
A Prospector.
El Dorado, El Dorado Co., April, 1866.

Picking up Thoughts.—Boys, you have heard of blacksmiths who have become mayors and magistrates of towns and cities, and men of great wealth and influence. What was the secret of their success? Why, because they picked up nails and pins in the streets, and carried them home in the pockets of their waistcoats. Now you must pick up thoughts in the same way, and fill your minds with them, and they will grow into other thoughts; and you will find them strewed everywhere in your path. By so doing you may acquire even greater distinction than that of magistrates or mayors, who merely rule by the physical force of power committed to them by others. The *thoughts* which you gather in place of their *nails* may enable you to rule by the stronger and more ennobling power of genius. You may become a Patrick Henry, a Webster or a Clay, and rule senates by the magic of your eloquence.

Three young workwomen in good health entered in the service of a Paris manufacturer, who engaged them in filling boxes with those dangerous toys known as Pharaoh's serpents. After continuing their work for some days only they were seized with alarming illness, and were obliged to be removed to the Laribosiere hospital. Their lives have been saved, but their health is forever gone.

[Written for the Mining and Scientific Press.]

From Mariposa and Fresno Counties.

BY OUR SPECIAL CORRESPONDENT.

Editors Press: My notes for the past week show but little of interest to the general reader, in the way of description of actual mines; but as I have passed over a portion of the country comparatively unknown to the inhabitants of the rest of the State, some description of its resources and character, may be of interest to your readers.

After leaving Bear Valley, I again traversed the Chowchilla copper district, on my way to this place, and was enabled to form a much more complete and correct idea of its value than I had before. The furnace of Messrs. Henry & Co. I found still in operation. It had distanced the most sanguine hopes of its owners, having smelted four tons of pig copper daily, from silicate and carbonate ores, for several days in succession. It would be necessary, however, to stop in a day or two, I was told, as the ore on hand would be exhausted by that time. Haskell & Phillips, at Bachman Hollow, were also running their furnace; but the grade of ores on hand being very low, it was impossible to do good work. The ore was a mixture of red oxide and green carbonate, with clay and slate, which would probably assay four or five per cent. It was found very difficult to separate the metal from this gangue. One and a half miles below the Buchman, on the north side of the river, is

THE GENERAL GRANT CLAIM,

Owned by Messrs. Ault, Jones and Carton, who claim 2,000 feet on a vein running in nearly east and west directions, *across* the stratification of the country, dipping to the north at an angle of forty-five degrees. The vein shows indications of copper at various points on the surface; but at the shaft, where it is opened twelve or fifteen feet deep, the surface croppings show no signs of metal of any kind. At a depth of four or five feet, however, silicate of copper appears, followed by a blackish gray ore, having the appearance of containing large quantities both of copper and silver, while traces of antimony and arsenic abound. Various tests of this ore have been made by local "experts" in metallurgy; but as the results are very different and in many cases contradictory, I think they are very likely unreliable, and the value of the ledge remains still a matter of doubt.

Mr. Ault accompanied me on a visit to a piece of land claimed by Mr. Wm. Nelson near the Buchman, or *Ne Plus Ultra* mine, noticed last week, and on which he has discovered what is believed to be an extension of that vein. As the geological peculiarities of the two localities are precisely similar, and fine silicates and carbonates of copper may be found on the surface in large quantities, I think Mr. Nelson is in the right; that his location is a valuable one, the vein being a continuation of the *Ne Plus Ultra*.

A ride of eighteen miles, principally over a level plain country, brought me to Millerton, the seat of Justice for Fresno county.

MILLERTON

Is pleasantly located on the San Joaquin river, three-fourths of a mile below Fort Miller, and at the point where the river breaks from the mountains into the plains. The hills in the neighborhood, as well as the bed of the river, are of granite formation, and a short distance above the town are very high and steep, forming one of the most picturesque views in California. There is not a quartz mill in the county, and but one or two veins have been discovered, which promise to be of any value; but the placer mines on the upper San Joaquin, are said to be immensely rich. In Millerton I met several of the owners of the Buchman, or the Ne Plus Ultra vein, among whom are Judge Windell, County Judge of Fresno county, and secretary of the company, Sheriff Ashman and Dr. Leach, treasurer of the N. P. U. Co., from whom I obtained much additional useful information in regard to the present condition, resources and prospects of Fresno county.

The principal business of the people of this county at the present time is the raising of cattle and sheep, which prosper well, and find abundant pasturage on the broad plains and in

the sheltered valleys among the hills. There are thousands of acres of fine agricultural lands, but owing to the distance from market and cost of transportation, it has not heretofore been found profitable to cultivate any more grain than was necessary for home consumption; but the rapid development of the copper mines in the northern part of the county will doubtless open a home market, for all the cereals that can be grown. The worst drawback, both to the mining and agricultural interests of this county, is the lack of skilled labor. There is sufficient capital in the hands of many of the inhabitants to do much toward the development of their mining interests; but as a general rule the people seem to be appalled at the idea of *actually* engaging in physical labor. They like very well to mount a mustang and rush over the plains; but when it comes to taking up the pick or the drill, the thing is altogether impossible.

Leaving Millerton between three and four o'clock in the afternoon, and traveling by a circuitous route through the foot-hills, I reached the residence of Mr. Simpson on Dry Creek, some twelve miles south of Millerton, about seven o'clock in the evening, where I spent the night, and in the morning rode out in his company to visit his friend and neighbor Mr. Mat thews who, as well as himself, is a shareholder in the N. P. U. copper company. The settlement on Dry Creek is but two or three years old, but the farmers are alive and awake to the true interests of themselves and the country, and are raising large crops of hay and grain, and assisting as much as possible in developing the mining resources of the county. May they have many as prosperous seasons as the present one promises to be.

Leaving Dry Creek about eleven o'clock on Friday morning the 4th inst., I reached the fords of King's river, thirty miles south of Millerton, about three o'clock in the afternoon. King's river is a beautiful clear stream of considerably larger volume than the San Joaquin, and is divided at this point into over a dozen branches of various sizes, four of which are rivers of considerable magnitude; the largest being ten or twelve rods in width, and about three feet deep, with a rapid current. The "delta" formed by these branches is about five miles in width, of rich lowland, well adapted to growing Indian corn, sweet potatoes or cotton; but seems to be almost entirely uncultivated, probably on account of the danger of floods. On both sides of the river, next the plains are a few fine well cultivated farms.

After leaving King's River, and emerging on the plains, I was conscious of nothing of special interest except the piercing north winds, until within a few miles of this place.

VISALIA.

The county seat of Tulare county, is located on the "delta" formed by the separation of the Kawiah river into several branches before sinking into the tules. The town is beautifully shaded with oak trees, which form almost a forest for many miles in every direction. The land is low and very rich, adapted to the growth of nearly everything produced in the Southern and Middle States of the Union. The means of irrigation are abundant and cheap, owing to the small elevation of the land above the streams. Business for an agricultural town is very brisk indeed, and everything wears the appearance of thrift. With the exception of the principal business street, the houses are very much scattered, being built in the center of large lots, and generally hid away among vines and shade trees, until they can only be seen by coming up quite near them. A very large proportion of the houses are of brick, and they are generally of but one story, which, with their location give them a pretty, homelike aspect, which is very inviting to a stranger. The town contains a voting population of 900; its whole population being probably from 2,500 to 3,000, though to a stranger it would not appear to have over 800 or 1,000. There is one church, four hotels, a large flouring mill, and a dozen or so of saloons and stores. The public school numbers about 100 pupils, while Prof. Van Doren's seminary, a private school of much merit, usually has forty or fifty. I visited the seminary to-day, and witnessed the performances of some of the classes. Among them was a recitation in English composition, in which some of the pupils read some specimens of their work, which though plain narration, showed an originality of thought, and felicity of expression truly worthy of praise. I have formed some acquaintances among the people of this place and am generally much pleased with them, and I hope on my return from Clear Creek, whither I start to-morrow, to improve upon it.

Visalia, May 8, 1866.

When Alexander the Great saw Diogenes in a cemetery, he asked him what he was doing there. 'I'm seeking,' said the philosopher, 'for the bones of your ancestors among those of beggars; but everything here appears to me so confused and mingled together, that I cannot distinguish them.'

Mechanical.

A Substitute for the Steamboat Paddle Wheel.—Mr. Henry T. Lea, a tinsmith at Half Moon Bay has made application through the patent agency connected with this office, for a patent for an invention, which is intended to take the place of paddle wheels, as a propeller for steamboats. The invention consists in the substitution of thin, flat plates, attached to horizontal beams on each side of the boat attached to the main shaft, and arranged so that when the main shaft turns, one of the beams on each side is up, and the other down, and one letting the plates, (which serve as paddles), perpendicularly into the water, and then drawing them straight back, while at the same time, the other one is raised out of the water and moved forward out of water, ready to take the place of the other as soon as it is clear from the water. The action is precisely like that of a paddle worked over the side of a boat. Any number of paddles may be used. There is no power lost by either lifting, or carrying dead water. Mr. Lea has constructed a small boat, capable of carrying two men, to which he has applied his invention, and which is said to work admirably. We presume the experiment was made in smooth water. How it will work in rough water, or on a larger scale remains to be shown. We should like to see the invention subjected to a practical test, and shall illustrate it in the columns of the Press at an early day.

A Useful Invention. — Mr. Abraham Gregg, of this city, has exhibited to us a model of what appears to be a very useful invention, designed to enable street cars to pass around the short curves on our street railroads with as little wear and expenditure of power, as they are moved upon a straight line. The invention consists of three parts—first, the fore and hind wheels are attached to separate trucks and joined in the center by a connection similar to that employed to connect the separate cars of a train, instead of the stiff connecting reach generally employed; second, the axles are made in two pieces connected much after the manner of a "swivel" in a chain, by means of which when necessary, as in turning curves one wheel may make more turns than another, the connection between the two being kept up by the swivel joint in the center; the third improvement consists of a new device for attaching the tongue to the vehicle, which is much superior to any other employed. The invention is now being tested on car No. 16, of the North Beach and Mission Railroad, and with entire success, as Mr. Skelly the superintendent, testifies. It will doubtless be universally adopted by railroad men, and we trust that the ingenious inventor, who is really a deserving gentleman, quite advanced in life, may reap a substantial benefit from it, as a solace for his declining years. Mr. Gregg has made application through our Agency for a Patent of his invention.

A New Gun Lock.—William Rudolph and Al Braun, of this city, have obtained a patent through the Mining and Scientific Press Agency, for a very valuable improvement in gun locks. The improvement consists in discarding the inner plate of the lock, over the tumbler, and letting the spring and tumbler into the outside or main plate, instead of allowing it to project into the inside of the stock, as with the ordinary lock. A smaller plate, lying flat on the inside, covers the spring and tumbler completely, rendering the lock as nearly as possible water-proof. Their locks (the invention is applicable to either "direct," or back-action locks) are far more simple than those in common use, and generally considered the perfection of art, and furthermore, do away with one great objection to the old style, obviating the necessity of cutting into the stock to such a depth as to weaken it, and render it liable to be broken by even a slight blow. The new lock fits on rather than into the stock, and strengthens rather, than weakens it; as it is not necessary to cut away the wood to any considerable extent to fit the lock. Mr. Rudolph has gone East to commence the manufacture of the lock.

According to Dr. Franz, an absorption of 3.54 per cent takes place during the passage of heat through a column of air ninety centimeters long; for colored gases the absorption is greater; but all colorless gases now show marked divergence from the atmosphere.

Bessamer Steel in Austria. — A recent number of the Austrian *Journal of Mining and Metallurgy* has an important communication from an iron-worker, in which he says that whilst engaged in the iron works of Stori, he had an opportunity of collecting a number of important facts regarding Bessemer steel, which he thinks the great expansion that the new method of producing steel is undergoing, renders interesting and valuable to the mechanical world. The Stori steel works produce their steel in massive blocks, which are wrought therefrom by hammers and rollers into a merchantable shape. Before placing them in the market, however, samples are taken from these blocks and submitted to the most severe tests, some of which he describes as follows:

An eight-sided bar, two and a half inches in diameter, was taken, and by one heat wrought into a rectangular bar, one inch by one-half inch, with clean, sharp corners. This was heated once and sharpened to a point; the sharp end was cut off and a nail head made upon it; this nail was bent around an anvil corner while cold.

Another rod, one inch by one-half inch, was bent like the letter S, hammered together and welded; the thick mass was hammered out to a point, without showing any breaks in the corners.

In a one eighth inch plate fifteen holes were punched, one-twenty fourth inch, apart, the plate remained without a crack, and the holes looked as though they were bored; the corner of the plate was then bent down like the corner of a visiting card. A bar 1¼x½ inch was hammered into a chisel, hardened, and used to chip castings with excellent results; it was broken, and showed an excellent steely fracture; the other end was bent cold to a right angle without cracking it in the least. No evidence of red shortness appeared in any of the samples.

New Method of Rolling Iron.—The Boston *Advertiser* says: A recent invention of a new method of rolling iron is one of the most important yet made for the working of this useful metal. It consists of a process for rolling into irregular shape, by which checkered surfaces, projections and depressions can be obtained with the same facility as plain surfaces have heretofore been produced. This result is accomplished by means of adjustable discs, of any desirable pattern, placed upon ordinary rollers, which leave upon the bars drawn through them the impress of the figures which they bear. Instead of solid rolls turned with grooves and peripheries in the ordinary manner, the inventor uses the cast or wrought iron spindles, on which are slipped cast iron, steel rings or discs, forming grooves or peripheries corresponding to those of ordinary rolls, and susceptible of an almost infinite variety of combinations. The spindles are allowed to project beyond the housings of one side, thus giving an opportunity for placing upon them every variety of pattern discs, and requiring but a few minutes to effect any desired change.

The Iron Product.—The returns of the anthracite furnaces of the United States for 1865 show a marked decrease in products, compared with the results of their operations during the previous year. Of the thirty furnaces in the Lehigh group, twenty two are now in blast. In 1865 the production of this region amounted to 177,438 tons, being 36,655 tons less than in 1864. Two of the establishments in this group exhibit a falling off of 25,000 tons in their united production.

Interesting Experiment. — The Pittsburg mining and manufacturing *Journal* reports the following interesting and important experiment: "A sample of pig-iron which, after having been re-melted and kept fifteen minutes in fusion bore a strain of 20,336 pounds; bore, when kept in a state of fusion for 2½ hours, 27,456 pounds; when 4½ hours in fusion, 29,227 pounds; 6¾ hours, 36,312 pounds; and 7¾ hours, 37,552 pounds the square inch. The density rose from 7,175 to the first, to 7,343 in the last experiment."

Heat Produced by the Agitation of Water.—While engaged in experimenting on the evolution of heat by the agitation of water, Mr. Rennie made use of a kind of churn capable of containing ten pounds of water, and which revolved at the rate of 232 revolutions per minute. He succeeded in raising the temperature of the water to boiling point, and, as an illustration, an egg was boiled hard in six minutes. A large portion of the heat generated in the Freiberg barrels may probably be accounted for in this manner.

A New Crushing Machine. — The Enterprise company of Meadow Lake District are now using a crushing machine for reducing their ores, constructed on a principle involving much novelty. The machine is an improved Chile mill; the improvement consisting in an arrangement for constantly presenting to the crushing face of the wheels a new supply of the ore, from which all that was reduced sufficiently fine by the previous passage of the wheel has been removed. The advantages of such an improvement, if it can be made practical, must be apparent to all. The inventor, Mr. King, claims to have done this, and has taken the necessary steps to secure a patent for the same through the Mining and Scientific Press Patent Agency. It is said that a machine is at work at the Enterprise mill, and giving good satisfaction. The machine is composed of three iron wheels, six feet in diameter with six-inch face, weighing, with the axles and other accompaniments, 2,100 pounds each. These wheels are revolved by rotating a large iron plate or disk resting upon the top or circumference of the wheels. This disk is so arranged that any required weight, say of fifteen tons, more or less, can be placed upon it, and thus added to the weight of the wheels. The ore is scraped off from the surface upon which the wheels revolve, passed through a sieve of the necessary fineness, and then elevated so as to be again automatically or otherwise placed before the wheel for a second crushing. We are informed that carefully conducted experiments have shown that this mode of crushing effects an important saving in the expenditure of power over the use of stamps, with the added value of crushing the rock dry. We hope soon to be able to give a more particular description of this machine, and should be pleased to hear that it continues to give satisfaction.

Gold Test.—A good test for gold or silver is a piece of lunar caustic (used nitrate of silver). In using this material it should be properly fixed in some instrument convenient for handling. Slightly wet the metal to be tested, and rub it gently with the caustic. If the metal be gold or silver, the mark will be faint; but if an inferior metal, it will be quite black. Jewellers who purchase old gold, often use this test.

The Most Fusible Alloy.—The most fusible metal has hitherto been composed of—bismuth, 2 parts; lead, 1; tin, 1; and its melting point is about 160° F. But an alloy, composed of four cadmium and five each bismuth, lead and tin, has recently been found to fuse at about 180° F.

Singular Fact with Regard to Alloys.—Alloys in which the preponderating metal is the worse conductor of heat present the curious result that they conduct heat as if they did not contain a particle of the better conductor; the conducting power of such alloys being the same as if the bars used in the experiment were entirely composed of the worse conducting metal.

The sensation upon the ear, connected by means of a tube with water in sonorous undulations, was found to be much greater than that upon the ear connected with the same water by means of a solid rod. When both tube and rod were employed simultaneously, sound was heard only in that ear supplied with the tube.

Copper a Preventative of Cholera.—In support of the theory of the preservative action of copper against cholera, it is affirmed that the great district of copper pyrites of the Rio-tinto, and its prolongation on the Heulvalia Spain, has never been visited by cholera.

Where was the First Rail Rolled?—Mr. W. S. Langridge, of Aldermusley Iron Works, Ambergate, says, in the London *Mining Journal*: "The first rail ever made was at the Bedlington Iron Works, Northumberland, and from these works a staff of men were sent to Penydarron, to teach the Welshmen to make rails."

The Iron Ore of Tennessee is abundant, easily worked, and yields in the rough way from thirty to fifty per cent. of iron.

"Grinding Effects of Differently Formed Plates, Practically Considered."

REPLY TO NUMBER SECOND OF W. A. GOODYEAR, CIVIL AND MINING ENGINEER.

BY P. M. RANDALL.

MESSRS. EDITORS OF THE MINING AND SCIENTIFIC PRESS: I see by your issue of May 12, 1866, that Mr. Goodyear is not quite ready to substitute the *calumet* for the *hatchet*. He, however, shows signs which bespeak an early peace. A broad streak of light already appears on the horizon, and I question not but that it may soon be said—

"The morn is up again—the dewy morn,
With breath all incense, and with cheek all bloom,
Laughing the clouds away with playful scorn,
And living as if earth contained no tomb,—"

Recognizing Mr. Goodyear a highly talented and accomplished mathematician, I can but congratulate myself to find him indorsing, almost to the fullest extent, my deductions relative to the "properties of grinding plates." In the SCIENTIFIC PRESS, page 290, he observes: "By comparing the above results with Mr. Randall's recapitulation, on page 269, it will be seen that we now agree with reference first to the mutual ratios for entire plates of equal weight among themselves; and second to the mutual ratios for ring plates of equal weight among themselves; but that we still disagree as to the ratio between entire plates and ring plates of the same weight."

Now on this point, by reference to my first reply to to Mr. Goodyear, it will be found that I did not presume the weight of the ring plate in any of the cases recapitulated, equal to that of the entire plate. It is thus so expressed, both by word and formula. If, however, Mr. Goodyear has succeeded in making this point clearer to the public mind, I shall be found the last in attempting to pluck a laurel from his brow. Again, Mr. Goodyear, after complaining that the merit of his errors were not better appreciated, and after recounting, with evident satisfaction, how he subsequently corrected those errors and made his new deductions to conform perfectly to those already obtained by the author of the "Supplement to the Wheeler & Randall's Quartz Operators' Hand Book," becomes highly self-congratulatory, and observes: "It will now be evident, I think, both from what I have said and from Mr. Randall's own admissions, that the Hand Book contained in principle, as well as in detail, sufficient errors and 'fallacies' to justly subject it to criticisms as severe as any that I have made."

This is decidedly refreshing, if not altogether modest, and brings to mind the words of another hero equally entitled to the special merit claimed as he relieved himself of his burden: "There is Percy, if your father will do me any honor, so; if not, let him kill the next Percy himself."

Let us now turn our attention to a more practical consideration of the properties of grinding plates.

At or near the close of my first reply to Mr. Goodyear, page 260, I remarked: "What was claimed and is claimed and is true, is that the tractory formed pan will do very much more work than either the flat or conical pan of the same weight; and I will now add, do the same amount of work at a less expense of power."

Now, on the other hand, Mr. Goodyear denies the truthfulness of this proposition, and says, on page 291, at or near the close of his discussion: "The errors into which I fell myself, though they affected my numerical results, *did not* affect the *main* and *important* points upon which I insisted, and upon which Mr. Randall is wrong, which are: first, uniformity of vertical wear independent of the particular form of the surfaces; and second, grinding effect *considered* in *connection* with power, the only just standard of comparison. And my first assertion that in this light the tractory conoid possesses no peculiar advantages remains undeniably true."

From a theoretical stand point, both Mr. Goodyear and myself have discussed the properties of grinding plates as if they came in direct contact in all their grinding parts; or at most, that only a layer of material *infinitely fine* intervened between them. This, in practice, is not true; for the material to be ground varies from the one-hundredth part, or less, to a half inch or more in diameter. Such being the case, the fineness or coarseness of the material to be treated becomes an unavoidable element in our practical considerations. If, now, this element be introduced in our considerations, and we employ plane circular plates, reason tells us, an opportunity being afforded, that the wear at the outer portions of the plates will be greater than nearer the center. Reason tells us that the opportunity is afforded in measure nearly corresponding to the fineness or coarseness of the material, and that hence the form of the plates will be changed accordingly, that the plane plates will become conical at their grinding surfaces. Reason tells us still farther, that the portions of the grinding plates near their centers come to a "*close ground joint*," and that the motion here being slow, and the surfaces becoming smooth, and the material being thus prevented from coming between them at these points, that the plates wear away slowly, and hence accomplish comparatively but little grinding effect. Now all these things which reason tells us, practice confirms to the fullest extent. On this point the authority of practical mechanics is conclusive. Now in practice, as well as in theory, it is found in tractory formed grinders or plates "that perfect uniformity of wear in the grinding surfaces is attained by the use of the curved face," as hitherto quoted. These things being so, how stands the *first* of Mr. Goodyear's "*main* and *important* points," to-wit: "uniformity of vertical wear independent of the particular form of surfaces"? It is evident that Mr. Goodyear's position is utterly untenable.

Now we may well infer that in practice, the disproportion in the *distribution* of *pressure* is much greater than in theory. Now, if Mr. Goodyear will carefully examine the analysis by which I obtained the proportion, to which he refers on page 290, to-wit: S : V :: E : G. he will readily perceive that I do not admit an equal distribution of pressure in plane and conical plates of uniform hardness. That proportion was derived from an entirely different state of facts, as clearly appears in my discussion of Plate *A*, page 259, and page 260.

Let us now discuss my proposition "that the tractory formed pan will do very much more work than either the flat or conical pan of the same weight, and do the same amount of work at a less expense of power."

To the first part of this proposition, namely, "that the tractory formed pan will do very much more work than either the flat or conical pan of the same weight," and of the proportions hitherto discussed, Mr. Goodyear fully accedes. On page 291, he says: "The tractory conoid does produce a greater effect in a single revolution than the other forms considered." Nor, as to the measure of this effect, as theoretically determined by us both, do we disagree. Each finds the relative grinding effects of the several pans to be for—

Plane or flat bottomed	1.1852.
Conical	1.3251.
Tractory	1.7778.

To the last part of my proposition, namely, "and do the same amount of work at a less expense of power," be emphatically objects. Now the manner of working these different formed pans, is to put a large amount of ore, say 1,500 or 2,000 pounds into them, adding sufficient water to it to reduce it to a pasty consistency.

Now if the muller be raised from the stationary plate so as not to grind at all, it is evident that it requires an expenditure of no little power to stir this mass and to carry it around. Each revolution costs some power.

The cost of this power depends much upon the consistency of the mass treated, and the velocity of the muller. On an average, it is probably not less than fifteen per cent. of the whole power expended when the muller is let down to its full weight or grinding capacity.

This conclusion is based upon the opinions of practical mechanics and quartz operators. But whether the expenditure, comparatively, be more or less than fifteen per cent. of the entire power, matters not in this discussion. It is sufficient for our present purpose to know that no inconsiderable amount of power is expended for stirring and carrying around the mass.

Now the unavoidable conclusion is, that the pan or muller acts in two capacities: first, that of a grinder; second, that of a stirrer or carrier. Taking the relative grinding effects of the plane, or flat bottomed pan, at 1.1852, and the grinding effects of the tractory formed pan at 1.7778, (which numbers are nearly in the ratio of two to three), as determined both by Mr. Goodyear and myself, let us see if my proposition is not rigidly and practically true that the tractory formed pan will "do the same amount of work as the plane or conical pan at a less expense of power." Let there be no misunderstanding in reference to the use of the term *work*. It is used in its practical sense "available or economized work." It is now evident, the pans being equally charged in all respects, if the flat muller be revolved three times and the tractory muller twice, that each will grind the same amount, (nearly). Each will consume the same amount of power as grinders for the equal quantities ground. But since each muller, at the same time, acts as a stirrer or carrier, it is plain that in this capacity the flat muller revolving three times will consume three parts of power, and that the tractory muller revolving twice will consume but two parts of power, and hence, that there is a gain of one part of power in favor of the tractory formed pan.

Now, of the whole amount of power expended in each, if fifteen per cent. be allowed for the purposes of stirring or carrying the mass or pulp, it follows that there is a saving of seven and a half per cent. of power in favor of the tractory formed pan over the plane or flat bottomed pan.

Therefore, on this, the second of Mr. Goodyear's "*main* and *important* points," it seems to me that he finds himself about in the position or predicament of a certain character in the "Georgia Scenes" "who could look but one way, and that upward."

He probably begins to see that the least of all my fears was that of "lugging power" as a subject into the discussion.

Again, from a practical stand point, it has been shown that the difference in the grinding effects of the plane and tractory formed pans is greater than that determined by theory, hence the true per centage in practice in favor of the tractory pan is greater than above shown.

But farther, let us look at the truthfulness and practicability of this proposition of Mr. Goodyear, viz: "Neither these" (referring to the tractory, also conical pan of certain proportions,) "nor any other forms produce an increased grinding effect except at the expense of a precisely proportional amount of power, and we can obtain this same result with any form by increasing the weight or size of the plates."

In the first place, this proposition is not strictly true; for if the weight is increased, the size of the muller is increased; hence, greater friction in stirring the mass results. But as to the "practicability." The increase in the muller involves an increase in the height of the rim of the pan and corresponding strength throughout its structure. Hence, we see that the entire weight of the machine would be greatly increased, the first cost would also be increased, the freight cost would be increased, the cost of "*setting up*" would be increased, and the subsequent cost and inconveniences of working would be increased.

This will never do. Quartz miners and operators, who, with Job-like patience, have endured "Rotary Batteries," "Hell-Roarers," "Concussion Concentrators," "Dry Amalgamators," "Secret Processes," double and twisted, compound hyfaluting compelexities, and a thousand and one other gimcracks, would dishonor at sight this invention of Mr. Goodyear.

The elements of lightness, convenience, durability and efficiency, quartz operators seek to find combined in any machine invented for their use. All these they find to greater perfection in the tractory pan than in any other yet offered to the public.

It seems unnecessary to institute a comparison direct between the tractory and conical pans, farther than to say that the ratio, theoretically determined, does not hold good in practice. That in fact, the efficiency of the conical is not above that of the flat bottomed pan. The reason of this apparent discrepancy between theory and practice, to no little extent, arises from the unsteady and swinging motion of the conical muller having its greater base upward. That is, the muller wearing away at its greater circumference and then coming to bear almost entirely on its lower and smaller base, seems to "toss about and labor like a ship in a heavy sea," without scarce making a single knot toward the destined haven.

In consideration of the foregoing facts, it does seem, Mr. Goodyear to the contrary notwithstanding, that the tractory pan does possess peculiar advantages over the flat bottomed and conical, in very many respects.

In conclusion, allow me to adopt the language of another, and say: "Among the feelings which at this moment fill my breast, not the least is that of regret at the position in which" Mr. Goodyear "has placed himself. He does himself no justice. The cause which he has espoused finds no basis in" mechanics and practice, "no succor from public sympathy, no cheering" from a mining "community. He has no foothold on which to stand while he might display the powers of his acknowledged talents. Every thing beneath his feet is hollow and treacherous. He is like a strong man struggling in a morass: every effort to extricate himself only sinks him deeper and deeper. 'And I fear the resemblance may be carried still farther; I fear that no friend can safely come to his relief, that no one can approach near enough to hold out a helping hand, without danger of going down himself, also, into the bottomless depths of this Serbonian bog."

SAN FRANCISCO, May 16, 1866.

SALES OF THE WEEK

AT THE S. F. STOCK & EXCHANGE BOARD

Saturday, May 12.

72 shs Ophir at 570@565 per foot.
12 shs Ophir at 560 per foot, s 30.
36 shs Ophir at 565 per foot, s 3.
96 shs Ophir at 555@560 per foot.
60 shs Ophir at 550 per foot, c.
36 shs Ophir at 560 per foot, b 30.
348 shs Ophir at 535@550 per foot, s 30.
152 shs Ophir at 550 per foot, b 10.
12 shs Ophir at 549 per foot, c.
24 shs Ophir at 547½ per foot, s 10.
92 shs Ophir at 555 per foot, b 30.
108 shs Ophir at 560 per foot.
7 shs Chollar-Potosi at 328@333 per foot.
2 shs Chollar-Potosi at 328 per foot, s 3.
3 shs Chollar Potosi at 3.5 per foot, s 30.
9 shs Chollar-Potosi at 336 per foot, b 30.
3 shs Chollar-Potosi at 326 per foot.
2 shs Chollar Potosi at 326 per foot, s 10.
100 shs Daney at 11 per foot.
2 shs Belcher at 330@332½ per foot.
2 shs Belcher at 330 per foot, s 3.
1 sh Belcher at 330 per foot
6 shs Yellow Jacket at 715 per foot.
3 shs Yellow Jacket at 718 per foot, s 30
2 shs Yellow Jacket at 730 per foot, b 30.
1 sh Yellow Jacket at 7.0 per foot, b 5.
2 shs Yellow Jacket at 720 per foot.
29 shs Imperial at 137@138 per share
5 shs Imperial at 126½ per share, c.
5 shs Imperial at 128¾ per share, b 30.
29 shs Imperial at 127@129¾ per share, s 3.
25 shs Imperial at 127¾@128¾ per share.
20 shs Imperial at 129@131 per share.
25 shs Imperial at 130 per share, b 3.
10 shs Imperial at 131 per share, b 5.
5 shs Overman at 80 per sh, b 10.
20 shs Overman at 80 per share, c.
60 shs Overman at 80 per share.
10 shs Overman at 80 per share, b 3.
20 shs Overman at 83@82½ per share, b 30.
20 shs Overman at 80 per share, s 10.
5 shs Overman at 80½ per sh, s 3.
25 shs Overman at 81 per sh, b 3.
25 shs Overman at 80½ per share, c.
5 shs Overman at 82½ per sh, b 30.
10 shs Overman at 81 per share, c.
1 sh Empire M & M Co. at 177½ per sh.
1 sh Empire M & M Co at 175 per share.
22 shs Confidence at 37@37¼ per share.
Amount of sales.....$113,030. 00

Monday, May 14.

51 shs Chollar-Potosi at 325@332 per foot.
20 shs Chollar-Potosi at 325@330 per ft, s 30
6 shs Chollar-Potosi at 337½@340 pr ft, b 30.
7 shs Chollar-Potosi at 329@330, s 3.
5 shs Chollar-Potosi at 335 per foot, b 5.
228 shs Uphir at 515@522½ per foot.,
12 shs Ophir at 540 per foot, s 3.
24 shs Ophir at 550 per foot, b 30.
180 shs Ophir at 530@525 per foot, b 5.
12 shs Ophir at 530 per foot, b 10.
60 shs Ophir at 525 per foot, b 3.
21 shs Ophir at 520 per foot, s 10.
4 hs Gould & Curry at 850 per foot.
4 shs Yellow Jacket at 730@735 per ft.
1 sh Yellow Jacket at 730 per foot, s 30.
6 shs Yellow Jacket at 745@712½ per ft, b 15.
10 shs Belcher at 320 per foot, s 3.
3 shs Belcher at 330 per foot, b 30.
10 shs Golden Rule at 20 per share.
30 shs Imperial at 131@135 per share.
15 shs Imperial at 132@134 per share, s 3.
5 shs Imperial at 132 per share, s 5.
5 shs Imperial at 134 per share, s 10.
10 shs Imperial at 133 per share, s 30.
29 shs Overman at 85@86 per foot.
10 shs Overman at 83½@85 per foot, s 30
10 shs Overman at 80 per foot, b 30.
10 shs Overman at 87½ per foot, b 10.
11 shs Bullion at 85@90 per share.
55 shs Bullion at 85@82 per share, s 5.
10 shs Bullion at 82½ per share, s 10.
2 shs Confidence at 36 per share.

AFTERNOON SESSION.

48 shs Ophir at 525 per foot.
21 shs Ophir at 522½ per foot, s 5.
48 shs Ophir at 522½@525 per foot, s 3.
12 shs Ophir at 525 per foot, b 5.
24 shs Ophir at 542½@530 per foot, b 30.
12 shs Ophir at 522½ per foot, s 10.
48 shs Ophir at 525@527 per foot, b 3.
6 shs Chollar-Potosi at 350 per foot.
1 sh Yellow Jacket at 720 per foot, s 3.
1 sh Yellow Jacket at 725 per foot.
2 shs Hale & Norcross at 970 per foot.
30 shs Overman at 89@90 per foot, s 30.
10 shs Overman at 87@85½ per ft.
15 shs Overman at 87@87½ per foot, b 3.
5 shs Overman at 85½ per foot, s 3.
5 shs Overman at 86, b 5.
15 shs Bullion at 82½@80 per share s 5.
50 shs Bullion at 80@79 per share, s 30.
1 sh Empire M & M Co. at 177½ per share.
10 shs Confidence at 36 per share.
10 shs Confidence at 35½ per share, s 30.
45 shs Imperial at 133@130½ per share.
30 shs Imperial at 131@131½ per share, s 3.
15 shs Imperial at 131½@130¼ per sh, s 30.
10 shs Imperial at 131 per share, s 10.
15 shs Imperial at 134@133 per share, b 30.
5 shs Imperial at 132 per share, b 10.
Amount of sales $123,326 00

Tuesday, May 15.

204 shs Ophir at 525@512½ per foot.
98 shs Ophir at 522 per foot, b 5.
12 shs Ophir at 517½ per foot, s 3.
12 shs Ophir at 535 per foot, b 30.
29 shs Chollar-Potosi at 329@345 per foot.
2 shs Chollar-Potosi at 330 per foot, s 3.
5 shs Chollar-Potosi at 333 per foot, b 3.
7 shs Chollar-Potosi at 340 per foot, s 30.
5 shs Yellow Jacket at 720 pr ft.
1 sh Yellow Jacket at 720 per foot, b 5.
1 sh Yellow Jacket at 720 per foot, s 20.
4 shs Alpha, G H, at 305 per foot, s 30.
89 shs Overman at 87@82 per ft.
10 shs Overman at 85, s 3.
5 shs Imporial at 131 per share, s 3.
10 shs Imperial at 130 per share, s 30.
45 shs Imperial at 130@128¾ per share.
10 shs Imperial at 129 per share, b 3.
5 shs Imperial at 131 per share, b 30.
5 shs Imperial at 128¾ per share, s 3.
20 shs Exchequer at 9½ per foot, s 5.
5 shs Bullion at 85@80 per share.
5 shs Bullion at 80 per share, s 3.
30 shs Spring Valley W W Co at 63 per ct.

AFTERNOON SESSION.

12 shs Crown Point at 1250@1225 per foot.
4 shs Crown Point at 1200 per foot, s 30.
24 shs Chollar-Potosi at 345@350 per foot.
3 shs Chollar-Potosi at 352½ per foot, s 10.
6 shs Chollar-Potosi at 355@357½ per ft.
24 shs Chollar-Potosi at 350@352 per ft, b 3.
21 shs Chollar-Potosi at 351 per foot
6 shs Yellow Jacket at 715 per foot, s 30.
3 shs Yellow Jacket at 717½@720 per foot.
1 sh Belcher at 320 per foot.
1 sh Belcher at 320 per foot, b 5
2 shs Hale & Norcross at 950 per foot.
2 shs Hale & Norcross at 950 per ft, b 3.
108 shs Ophir at 505@515 per foot.
60 shs Ophir at 500 per foot, s 3.
24 shs Ophir at 500 per foot, s 6.
36 shs Ophir at 500 per foot.
12 shs Ophir at 510 per foot, b 30.
14 shs Ophir at 495 per foot, s 10.
36 shsOphir at 500 per foot, b 5.
40 shs Bullion at 85@87½ per share.
5 shs Bullion at 88 per share, b 3.
10 shs Bullion at 87 per share, s 5.
20 shs Bullion at 90 per share, b 30.
5 shs Overman at 83 per sh.
15 shs Bullion at 87 per share.
15 shs Overman at 85 per foot, b 3.
10 shs Bullion at 84 per share, s 3.
6 shs Overman at 83½ per share.
5 shs Imperial at 131 per share, b 30.
13 shs Imperial at 128 per share.
25 shs Spring Valley Water Co at 63 p et
5 shs Cal Steam Nav Co at 61 per ct.
Amount of sales.....$133,698 00

Wednesday, May 16.

228 shs Ophir at 495@475 per foot.
108 shs Ophir at 490@460 per foot, s 3.
36 shs Ophir at 475@477½ per foot, s 30.
36 shs Ophir at 485 per foot, b 5.
60 shs Ophir at 485@492½ per foot, b 10.
24 shs Ophir at 485 per foot, b 3.
24 shs Ophir at 480 per foot, s 10.
4 shs Belcher at 326 per foot, b 30.
1 sh Belcher at 315 per foot.
4 shs Belcher at 310 per foot, s 3.
4 shs Alpha, G. H., at 290 per foot, s 25.
1 sh Yellow Jacket at 750 per foot, b 30.
5 shs Yellow Jacket at 735@725 per ft.
3 shs Yellow Jacket at 735@725 pr ft, s 30
1 sh Yellow Jacket at 730 per foot, b 3.
1 sh Yellow Jacket at 735 per foot, b 25.
17 shs Chollar-Potosi at 343 per foot.
10 shs Chollar-Potosi at 350@350 pr ft, b 3
5 shs Chollar-Potosi at 340 per foot, s 30.
1 sh Savage at 970 per foot, b 3.
10 shs Exchequer at 9½ per share.
5 shs Confidence at 40 per share, b 30.
5 shs Bullion at 85 per share, s 3.
10 shs Bullion at 81 per share.
20 shs Bullion at 88 per share, b 30.
35 shs Overman at 81@81 per ft.
10 shs Overman at 86@85 per foot, b 30.
10 shs Overmanat 82 per ft, s 30.
5 shs Overman at 881, b 5.
10 shs Imperial at 129 per share, b 3.

AFTERNOON SESSION.

1 sh Yellow Jacket at 770 per foot.
1 sh Yellow Jacket at 750 per foot.
7 shs Yellow Jacketat 750 per foot, s 30.
9 shs Yellow Jacket at 760 per ft.
3 shs Yellow Jacket at 765 per foot.
1 sh Yellow Jacket at 755 per foot, s 10.
2 shs Yellow Jacket at 755 per foot, s 30.
2 shs Yellow Jacket at 755@750 er foot.
12 shs Ophir at 475 per foot, s 30.
48 shs Ophir at 465@475 per foot, s 10.
160 shs Ophir at 475@462½ per toot, s 5.
108 shs Ophir at 460@468 per foot.
1 sh Savage at 960 per foot.
4 shs Gould & Curry at 855 per foot.
4 shs Alpha, G. H., at 260 per foot, b 3.
10 shs Chollar-Potosi at 346 per foot, b 10
2 shs Chollar-Potosi at 341 per foot.
36 shs Crown Point at 1250@1240 per ft, b 30.
4 shs Crown Point at 1240 per foot.
10 shs Overman at 80 per share.
10 shs Overman at 80 per foot, b 30
15 shs Overman at 77½@76 per share.
5 shs Overman at 75, b 3.
5 shs Overman at 75, b 15.
22 shs Overman at 75@73 per foot.
85 shs Overman at 75 per ft, b 30.
7 shs Imperial at 129½ per share.
8 shs Imperial at 130 per share.
7 shs Imperial at 129 per share.
$2,500 U. S. 7-30 Bonds, June issue, 82¾ pr ct.
Amount of sales.....$124,732 00

Thursday, May 17.

12 shs Ophir at 450 per foot, s 10.
408 shs Ophir at 445@440 per foot.
24 shs Ophir at 455 per foot, s 3.
1 sh Ophir at 455 pr ft, b 3.
120 shs Ophir at 450@445 per foot, s 30.
36 shs Chollar-Potosi at 341@348 per foot.
5 shs Chollar-Potosi at 345 per foot, s 5.
15 shs Chollar-Potosi at 350 per foot, b 30.
9 shs Yellow Jacket at 775@770 per ft, s 10.
1 sh Yellow Jacket at 775 per foot, s 3.
7 shs Yellow Jacket at 770 per foot.
1 sh Yellow Jacket at 770 per foot, b 5
1 sh Yellow Jacket at 765 per foot, s 30.
1 shs Yellow Jacket at 775 per foot, b 10.
4 shs Belcher at 315@307½ per foot
1 sh Belcher at 305 per foot, s 30.
1 sh Belcher at 310 per foot, s 10.
5 shs Belcher at 305 per foot, s 3.
8 shs Belcher at 310 per foot, b 10.
4 shs Alpha, G. H. at 295 per foot.
16 shs Crown Point at 1240 per foot, b 30.
17 shs Imperial at 13 1/2@131 per share.
119 shs Overman at 76¼@74 per ft.
10 shs Overman at 74, s 3.
10 shs Overman at 76 per foot, b 30.
10 shs Overman at 75 per foot, b 10.
10 shs Overman at 74 per ft, s 30.
20 shs Overman at 76½@75¼ per foot, b 15.
5 shs Overman at 73¾, s 15.
5 shs Confidence at 36 per share.
10 shs Bullion at 82@82¼ per share, s 30.
15 shs Bullion at 85 per share, b 30.
5 shs Bullion at 81 per share.
5 shs Bullion, at 81 per share, s 3.
$3,000 U. S. 7 3-10 Bonds, June issue, at 82¾ p ct

AFTERNOON SESSION.

2 shs Yellow Jacket at 780 per foot, b 30.
2 shs Yellow Jacket at 775 per foot.
5 shs Yellow Jacket at 780 per foot.
2 shs Yellow Jacket at 796 per foot, b 30.
1 sh Yellow Jacket at 785 per foot.
2 shs Yellow Jacket at 790 per foot.
2 sh Yellow Jacket at 785 per foot, s 10.
2 shs Yellow Jacket at 780 per foot, b 15.
3 shs Yellow Jacket at 770 per ft, b 5.
8 shs Yellow Jacket at 770 per foot, b 3.
4 shs Crown Point at 1247½ per foot, b 30.
12 shs Crown Point at 1250 per foot.
3 shs Belcher at 310 per foot.
1 sh Belcher at 308 per foot.
7 shs Chollar-Potosi at 347½ per foot.
10 shs Chollar-Potosi at 348 per foot, b 5.
24 shs Ophir at 430 per ft, s 30.
24 shs Ophir at 430 per foot, s 10.
60 shs Ophir at 425 per foot.
107 shs Ophir at 420 per foot.
12 shs Ophir at 4 0 per foot, b 5.
12 shs Ophir at 420 per foot, s 5.
24 shs Ophir at 430 per foot, b 30.
4 shs Alpha, G. H., at 260 per foot, s 30.
8 shs Alpha, G. H., at 260 per foot.
1 sh Empire M & M Co. at 178 pr sh.
15 shs Imperial at 130 per share
15 shs Imperial at 130½ per share, s 30.
5 shs Imperial at 130½ per share.
50 shs Baltimore American at 83¾ per share.
30 shs Exchequer at 9 per share.
5 shs Confidence at 36 per share.
10 shs Overman at 73 per sh, s 30.
20 shs Overmon at 72, s 30.
5 shs Overman at 72¾, s 30.
20 shs Overman at 73, b 30.
12 sh Overman at 72¾@73.
Amount of sales.....$129,581 00

Friday, May 18.

144 shs Ophir at 40 @405 per foot.
12 shs Ophir at 410 per foot, b 10.
12 shs Ophir at 415 per foot, b 30.
12 shs Ophir at 410 per foot, s 10.
12 shs Ophir at 410 per ft.
111 shs Ophir at 4 7¾ per foot, s 30
36 shs Ophir at 4 7¾@41 per foot, s 3.
24 shs Ophir at 420 per ft, b 30.
84 shs Ophir at 400 per foot, b 5.
28 shs Chollar-Potosi at 338@342 per foot.
5 shs Chollar-Potosi at 340 per foot, s 30.
3 shs Chollar-Potosi at 340 per foot, s 3.
2 shs Chollar-Potosi at 340 per foot, b 10.
1 sh Chollar-Potosi at 340, b 5
2 shs Yellow Jacket at 775 per foot, b 30.
12 shs Yellow Jacket at 737½@750 per foot.
2 shs Yellow Jacket at 735 per foot, s 10.
2 shs Yellow Jacket at 745 per foot, s 3.
1 sh Yellow Jacket at 737½ per foot, s 30.
20 shs Imperial at 130 per share.
5 shs Imperial at 133 per share, s 10.
5 shs Imperial at 130 per share, s 3.
1 sh Empire M & M Co. at 175 per sh, s 30.
1 sh Empire M & M Co. at 175 per sh, s 3.
1 sh Empire M & M Co. at 175, b 30.
10 shs Bullion at 80 per share, s 3.
80 shs Bullion at 80 per share.
55 shs Overman at 61@70 per share, s 30.
10 shs Overman at 72 per sh, b 15.
40 shs Overman at 72½ pr sh, b 30.
10 shs Overman at 61 per sh, b 3.
62 shs Overman, at 69@70 pr sh.
4 shs Belcher at 300 per sh.
1 sh Belcher at 305 per sh, b 30.
4 shs Alpha, G. H., at 240 per foot.
142 shs Exchequer at 9½@8¾ per share.
80 shs Daney at 11 per foot, b 30.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, May 19, 1866.

The demand for Money is light. The market is well supplied with available means, and a greater accumulation of capital may be noted. It seems to be conceded now by many of our banking and business men that rates of interest are likely to be still farther reduced the current year by the increasing competition of money-lenders. The prevailing rate in Bank is 1 ₱ cent. per month, with occasional transactions at 1¼. In the open market, loans are made at 9 ₱ cent per annum to 1½ ₱ cent per month; nothing, however, but the choicest securities being taken at the lowest range.

Receipts of Treasure from Domestic sources since the date of our last reference, amounted to $1,100,000, making an aggregate of $2,600,000 thus far during the current month.

There has been some inquiry for Bullion this week, with inconsiderable sales at slightly higher figures. Gold Bars may be quoted at 850 and Silver is varying at ¾ to 1¼ ₱ cent. premium—the latter for bars of high grade.

Legal Tender Notes are a shade lower and sales have been made at 78@78½c, closing at 77¾c bid; 78¼c asked. Latest telegraphic advices from New York quote Gold at 130, and Sterling Exchange at 109½. This rise is said to be owing to the return of some of our Securities from Europe for sale (growing out of complications between Austria and Prussia), and the renewal of specie shipments from New York.

City and County Bonds and Miscellaneous Shares (other than mining) are still in favor and at higher rates than most of them have ever before attained. Money is now so abundant and cheap that many capitalists find it difficult to employ it except in the purchase of these Securities. Some $50,000 City and County Sevens of 1865, have been sold at 85, adding interest since first Inst. This is equivalent to a little over 8 ₱ cent. per annum. Pacific Insurance Company is in demand at $180, and Union Insurance at about $120 ₱ share. The capital stock of the latter is now fully paid, viz: $750,000, and their surplus accumulations to April 30th amounted to $102,911, making an aggregate of $852,911.20. This Company have no debts, and disbursed during the last year only $14,072 for losses. California Steam Navigation Company was dealt in at 61 ₱ cent., and Spring Valley at $68 ₱ share. Sacramento County Bonds can be sold at 55c, and San Francisco City Gas at $110 ₱ share.

The Mining Share Market has been exceedingly dull, and marked by little or no speculative feeling. A few leading Stocks have been well maintained at prices ruling last week. Some have improved a little, though inactive, while others are lower and close weak at the decline. Advices from Nevada are meager this week, both through official and private sources; but so far as we can learn, there is no especial reason why the market should be unfavorably influenced at this particular juncture.

Crown Point was sold at $1,250 and $1,225, ex dividend of $80 ₱ foot; then at $1,200, and closes at $. During the week ending 13th inst., 653 tons of ore were extracted. From the west stratum considerable ore was taken last week of better than the average quality. Active operations have been temporarily suspended in this mine, owing to repairs necessary to be made to the shaft, but these improvements are now completed.

Savage met with trifling sales at $970@960, closing at $975. No official reports have been received this week. During the past few days the mine has been producing 80 to 90 tons of ore per day, chiefly from the sixth level. The latter is said to look well as its development progresses.

Hale & Norcross was sold at $970, then at $950, ex-dividend of $50 ₱ foot, and closing at $975 asked. There is no change to note in the condition of the mine, every portion of which is said to look well. The drift from the incline will soon be underway for a new level at a depth of 765 feet.

Gould & Curry continues dull and inactive. Small sales were made at $850@855, closing at $850. Receipts of bullion for the first ten days of this month amounted to $64,000. Explorations in the lower drifts are progressing with great vigor.

Yellow Jacket rose from $715 to $765, then sold at $775, and was dealt in yesterday at $735@740. The officers of the Company in Nevada have not as yet furnished the stockholders in this city with an exhibit of their affairs for the past month, nor have any official statements been made public since the 25th of April. We are informed, however, that certain portions of the mine are more promising than for some time past.

Ophir is in less request, and some 400 feet have been dealt in; steadily declining from $570 to $460, rallying to $485, dropping to $450, then selling at $400@410, and closing yesterday at $425. Developments this week are thought to indicate a material change in the quality of ore to be taken from the ninth level. In stopeing up and in drifting north little or no ore has been met with recently, but in going south it is said to hold out well.

Chollar-Potosi has been in little favor, and very considerable sales were made, advancing from $326 to $357½, receding to $341, then selling at $346, and closing at $337½. No official reports have been received this week, but private advices represent an improvement in the appearance of several stations.

Alpha receded from $305 to $255, and then sold at $240. Belcher is also lower, declining from $332 to $307½, and selling yesterday at $300@305. Empire Mill & Mining has been dealt in at $175@177½ per share, closing at $170 bid.

Imperial rose from $128 to $135, dropped to $128 again, then sold at $131, and changed hands yesterday at $130. The Rock Point Mill reduced some 2,300 tons of ore last month, averaging $34.91 per ton. It is thought that considerable ore can yet be taken from the sixth level. The drift for the next level below is in some 160 feet from the shaft.

Overman has been actively dealt in, and nearly 1,000 shares were sold advancing from $82 to $87, steadily declining to $73, then selling at $74, and closing at $65. Bullion fell from $90 to $80, rallied to $84, and sold yesterday at $80. Daney has been sold at $11, and Goldea Rule at $20.

The total recorded sales of Stocks since Saturday last inclusive, amounted to $737,547.

Mining Summary.

CALIFORNIA.

Alpine County—

We glean the following items from the Monitor *Gazette* of the 12th inst:

The workmen on the Mowyer are now in over seventy feet with the tunnel and making good headway. They are running in the casing of soft rock alongside the ledge, and when sufficient depth is attained for the purpose, will cut across and test the vein.

We are happy to be able to state that yesterday the last load of the first installment of about four tons of ore from the Buckeye No. 2, was hauled to the Pioneer mill for a working test. We await confidently the result of this test, and then, as we suggested before, "we shall see what we shall see."

Roderigo, of the Peacock lode, showed us this week a quantity of retorted amalgam obtained from a working of the ore in his arastra. Señor Roderigo, who is an old assayer and worker of silver ores from Mexico, assures us that the prospect obtained is very flattering.

The Sailor rock prospects finely.

Amador County—

The *Dispatch* has received specimens of rock from the Mount Echo and Tussimita claims, on the celebrated Soapstone, or talc lode, located on the divide betweeu Dry creek and Horse creek, about four miles below Drytown. It thus speaks of them: "The specimens are studded with fine gold, and have the appearance of the richest kind of specimens of quartz rock; aud yet the substance is entirely clear of grit, and so soft that blocks can be whittled or shaved into any imaginable shape. We are credibly informed that twenty-four hundred pounds of the rock, which was crushed in one of the quartz mills near Amador City, yielded thirty-six dollars and twenty-five cents. It has been found by actual experimeut that the rock can be ground in a common flouring mill at the rate of one hundred pounds per minute. In fact 1,300 pounds were crushed in a flouring mill near Ione City in thirteeu minutes. The shaft in the Mount Echo has been sunk to a depth of 50 feet, and the vein is ascertained to be about 22 feet in width."

We alluded to these claims some three months since—noticing the singularity of the occurrence of gold in steatite.—Eds. Press.

Calaveras County—

The "Gold Hunter," in Salt Spring Valley, is now yielding rich rock.

The *Courier* of 12th inst., says:

Prospecting is still on the increase. We have heard of several new discoveries being made, within the last week—real, *bona fide* gold-bearing quartz leads—upon the most of which men are already earnestly at work. The Sulphuret lead, in Dutchman's Gulch, is being systematically and rapidly developed. A large number of men are employed in this mine, and it is the intention of the company to erect a mill the present season. The custom mills are all crowded, and there is *now* more rock out than they can possibly crush during the season.

The new quartz discoveries at O'Byrne's Ferry had caused a considerable excitement in Copperopolis.

Contra Costa County—

The *Gazette* of 22th instant, learns from a friend who visited the Welch Quicksilver mine last week, that it is developing promisiugly.

Humboldt County—

Oil.—Work has been discontinued on the Brown & Knowles well; also on the Mattole Creek.

The North Fork is down 230 feet. At 207 feet a vein of oil was struck, which has been yielding ever since.

At the Jeffrey well they have attained a depth of 418 feet. They expect to have their engine in running order in the course of a week or two.

At the Joel's Flat they are still awaiting the arrival of materials, aud are continuing to siuk shafts.

The Upper Mattole is down 204 feet.

The Irwin Davis is down 655 feet. At this poiut they encountered a stratum of coarse sandstone which gives off a strong odor of petroleum, and which increases as the drill penetrates it.

Mariposa County—

From Coulterville correspondence of the *Gazette*, we gather these items:

H. G. Cowan & Co. have gone to work in earnest in the old Marble Spring vein.

Wright & Spencer have started their new mill on the North Fork, near the Bower Cave.

Captain Arni is crushing rich rock out of the vein lately struck by him, and now owned by himself and John Hite and other partners.

Nevada County—

The following items are condensed from the Grase Valley *Union*:

The new machinery just completed upon the claim of Frank, Moore & Co. has fairly got under way and works to a charm. The incline is now in some forty feet, and will be pushed to a depth of one hundred and fifty feet for the first level. The company commenced sinking the extension of their incline on Monday.

The mill of the Eureka mine has been shut down temporarily, for the purpose of making necessary repairs.

Real estate in Grase Valley is rapidly rising.

A compromise has been effected between the Illinois and Wisconsin companies, both of which claimed what was supposed to be the same ledge. These two companies have been consolidated into one, under the name of the Wisconsin Mining Co. Work will now be pushed forward as rapidly as possible.

The new hoisting works at the Alison Ranch are progressing rapidly. The southern incline is down some three hundred feet, and cuts a very handsome ledge between the upper and lower levels. This ledge has been named the Carnboo, and promises to be richer than anything that has yet been discovered in this mine.

The *National* says: A vein of very rich rock was struck a day or two since, in the Soggs' mine, on Deer Creek. The rock which the company have been taking out herctofore, paid about forty dollars per ton.

Rough & Ready, although it has twenty or thirty ledges in its vicinity, which would pay for working, is nt a stand still for want of capital to develop them.

At the Ione mine, the amount realized in a week's run, was one hundred and eighty ounces. The company are still on the first level and the mine is, comparatively speaking, yet unopened.

From Meadow Lake we learn that the weather of late has been quite warm, the snow melting rapidly or settling, so that only four or five feet is left.

Meadow Lake is regularly laid out with streets eighty feet wide and a plaza 300 feet square. There are 300 buildings. Town lots from $600 to $2,000 each.

San Juan North is coming up again. The *Transcript* says:

All the claims in that vicinity are paying nearly double their old yield, a great many new ones are opened, and thousands of dollars have been taken out every week. There is not a house for rent there, and the merchants are all doing a very healthy business.

The following items are from the *Gazette:*

Some years ago a Frenchman named Ducray accepted in payment for a debt of thirty dollars, a claim, situated near the office of the ditch company. This spring he thought he would try his claim, when he struck into a lead of gravel which had been covered up by an old slide, and after running four weeks he cleaned up 265 ounces of gold, worth nineteen dollars an ounce—amounting in all to a little over $5,000.

A rich quartz strike was made a few days ago near Brush Creek. A tunnel into the ledge struck a pocket from which the discoverers have taken out several wheelbarrow loads of quartz, which is literally filled with gold, and which is separated by pounding in a mortar.

A lump of gold worth $205, was taken out from Binsley & Co's claim, on Kentucky Flat, a few days ago.

We saw, yesterday, a very rich specimen of gold bearing quartz taken from a ledge near the mouth of Wolf Creek, opposite Snow Point. A company was formed and claims located. The ledge is about three feet wide and so far as prospected, is remarkably rich, and pays them handsomely for working it in a hand mortar.

Copper.—The *Gazette* says:

We learn that the locators of the first northerly extension of the Fox copper ledge have been offered $70,000 by some San Francisco capitalists for their location. The location consists of ten claims of one hundred feet each.

Five or six companies have located claims upon the Hermitage, a ledge 400 yards west of the Fox ledge.

A piece of quartz weighing one pound, and valued at twenty dollars, from Grizzly Hill, was shown to the *Gazette*, who adds that tons of the same are now in sight—the ledge being three feet thick.

Placer County—

The miuers of Gold Run were about holding a meeting to determine what course should be pursued in order to rescue their mining claims, which happen to be on the reservation of the Central Pacific Railroad Company, from the clutches of that grasping monopoly.

The following is from the Dutch Flat *Enquirer:*

Messrs. Judd, Kinder & Stewart, composing the Gold Run Company, lately cleaned up $2,700, after a run of twenty days, ten hours per day, with 300 inches of water.

Plumas County—

An East Branch correspondent of the Quincy *Union*, gives the following items:

The Taylor Hill Company are not working their claims this season, but they are selling all the water their ditch can carry.

The Bunker Hill Company have plenty of water, and the opening in their claim is growling large very fast. McElroy & Co., on the beach above Long Bar, are doing well. Butler & Co's claim, at the Junction, prospects as well as ever; they have one of the best claims on the river. The Pea Soup Co. are at work "bottoming" up, and are getting good pay.

Shasta County—

Noah S. Batcheller, who arrived in the country on April 4th, recollecting the quartz which he saw in Shasta County, in 1851, proceeded directly to the vicinity of Ellsworth's saw mill. He "struck it"; and located three ledges, which he named the "Chicago Series." The news of the discovery spread like the wind," says the *Courier*. The editor of that paper visited the ground, and picked up a piece of the rock, which seemed to be all alike, and had an assay of it made in town. The result makes the value $525 to the ton, in silver. It was not tested for gold, although it is thought to be rich in that metal also. A new district was created and named the "South Fork."

The same paper, speaking of the Washington Quartz Company, says:

During the space of a year, the mill has crushed 1400 tons of rock, from which the company have received $15 per ton in coin over and above all expenses for melting, assaying, brokerage, express charges, etc.

Sierra County—

The Downieville *Messenger* of May 12th, has the following items:

Jim Messerve has sold his share (one half) of his lately discovered quartz ledge, to an Eastern company for $1,000. We understand the purchasers are the same who purchased the Wheeley ledge, and which is now being worked by them.

From the hydraulic mining camps we hear that the water has nearly failed with most of the companies, and though it fails early, the yield of gold has been unprecedented. At Eureka, we hear the water cannot hold out more than a couple of weeks, and it is probably the same elsewhere. Many of the diggings will return a net profit of double their former yield, and money will be more plentiful than for several years.

A correspondent at Alleghany says Gov. Newell is below and report says he intends putting up a new mill on his return. The Twenty-one Company will soon erect a new mill with a hardy gurdy wheel, running four stamps, with capacity for more. The General Sherman ledge, owned by Bob Waters, prospects well. The Oak Flat Company still continue to get encouraging prospects and intend to start their mill soon. The Fac Simile Company have resumed operations. The Union Company are running their mill with encouraging results. Rice, Wright & Co., are resuscitating the old Fremont Company, which will doubtless prove highly remunerative. The Masouio is repairing and consequently working only one-half their force. Their prospects are cheering.

Messrs. Cole & Stevens, of Brandy City have just completed the building of two or three miles of mining sluices. The Marysville *Appeal* says that last week they cleaned up two of the upper flumes and took out 420 ounces of gold.

Tehama County—

The Red Bluff *Independent* saye:

Fuller & Larkin have been awarded the contract to sink a shaft on the Union Company's works at Lower Springs.

The emigration is coming thick and fast to start from this point to Idaho.

Trinity County—

The *Journal* of the 12th inst., says:

We have the most reliable authority for stating that the gold of Canon Creek will be very large this year—much larger than it has been for several years past. The ditches owned by Jos. Depinett, Flowers & Co., Major Price and Adam Berger, are flowing full of water. The new tier of claims lately opened along the hillside below town, are paying well. Mark Knowlton & Anstead are taking out a hundred dollars a week, and other claims pay regularly from $6 to $10, and an ounce a day to the hand.

Wm. O'Brien and Joseph McIlvane started from Weaverville for the Atlantic States on the 2d of May. They had been mining on New River during the past winter, and the amount realized, added to that for which they sold their claim, reached the snug little sum of $5,300, which they carried with them in New River dust, the particles of which varied in value from 50 cents to $50. On the 5th of this month Steve Noble, Albert Prnett and John Keach, sold at Creenhood's Bank a pint dipper full of the same kind of dust. Four pieces of this last lot weighed over $500—the largest being worth $199.

Tulare County—

The Keru County correspondent of the *Times* says:

New quartz discoveries are of daily occurence, and rock that will not "horn out" at the rate of forty dollars per ton is passed by with contempt by the prospector. Among the lodes opened and paying I may mention that of Mills, McDonald & French, Parsou Higgins, Tucker & Collins, all worked by arastras, and, especially the lode first mentioned, paying well. The Long Tom mine, owned by the Roberts Bros., is, I am informed, paying large profits. This lode is from six to nine feet in width of solid gold-bearing quartz. The main and air shafts, about forty feet apart, are down about one hundred and twenty feet. The company have a ten stamp steam quartz mill crushing day and night. A quartz mill to do custom work is much needed here.

The "Pinte," is a new district, three miles east from the Hot Spring Valley. Rich prospects have been found.

The Visalia *Delta's* Inyo correspondent sums up thus:

Captain Almarin B. Paul's mill will be running before this reaches you. The Pioneer Mill will be in operation in a very few days. The Kearsarge Company's Mill is also nearing completion. There is a enough rock in sight to run a twenty stamp mill a year. The Chrysopolis Company are working about twenty men on mill and mine. Colonel Stevens, with a stiff force, at the head of Owen's Lake, is going ahead prospecting the A No. 1 ledge, and exoresses himself as more than satisfied with both ore and ledge. Prospecting is still going on, and new discoveries are constantly being made. Some of the rock of Fish Spring district is now being worked in the mill of Thomas Passmore.

Tuolumne County—

The following items are from the *Courier:*

A 5-stamp mill, with capacity for ten stamps, will at once be erected on the Starr King claim near the Grizzly.

Silver ore from Columbia district yielded by assay, 116 ounces to the ton.

A 10-stamp mill has just been completed for the Mississippi vein, at Oak Flat.

The same paper says: Placer mining is carried on in and around about the city of Columbia to a greater extent than most people throughout the county dream of—in fact, it may be said that the placer mining of the county is centered now up in this district.

Yuba County—

The mines at Brown's Valley are again coming into favor. The Pennsylvania, Donebroge, and Yuba will be crushing rock in the course of three weeks. The Jefferson company is still taking out rich rock, and mining interests generally are improving.

Smartsville is said to be to Yuba, what Grass Valley is to Nevada county.

NEVADA.

Virginia—

A company has been incorporated, represented by Messrs. Pray, Clark and Goff, to construct a flume from the east side of Lake Tahoe, through the heart of that timber region to Empire, a distance of fourteen miles, for the transportation of fuel for the mills. The Gold Hill *News* says: "If they come up to a third part of their expectations in regard to quantity to be delivered, a great reduction in the price of wood and lumber must necessarily take place. A reduction of price leads of course to a closer working of our ores, an advantage gained that our mine and mill owners well understand. Success to the enterprise, say we."

Reese River—

The Nye County *News* of the 5th inst., has the following: From Mr. A. J. Holmes, who came in on Thursday last, from Columbus district, we learn that things are progressing finely in that section. He reports the mines looking well, and says it is the intention of the company with which he is interested to put up a 20-stamp mill immediately.

The amount of ore shipped by the Succor mill during the week, amounts to 2,305 ounces, valued at $2,132.83.

The *Reveille* of 10th inst., says: "This morning Messrs. Sinclair and Pickett called at our office with a number of samples of the richest copper ore just discovered in the Battle Mountain district. Nearly every piece showed native copper. There were green carbonate, silver fahlerz, or gray copper ore, of light steel gray color, and red oxide of copper, holding incrustations of malachite, beautifully banded. Probably no richer copper ores can be produced on the coast.

A new district, the Palmetto, has just been organized. It is on the southern boundary of the State, adjoining California, and is twenty-five miles south of Silver Peak. Fifty-two

locations have been made. The *Reveille* says: "The veins are all silver bearing, with perhaps a trace of gold, and the specimens brought in indicate mineral of a superior character, and we predict they will assay largely.

A little over six tons of ore from the Yankee Blade, produced three bars of bullion valued at $3,950.

So great a volume of water has recently been tapped in the Oleander mine on Lander Hill; as to drive out the workmen and temporarily stop its further working.

The New York and Silver Peak mining company have stopped work for the present, owing to defective furnaces and imperfect machinery. They will discard their Gardiner Crusher and Little Giant engine, and replace them immediately by a 20-stamp mill and a powerful engine.

Esmeralda—

The *Union* has these items:

The news from Bodie this week is decidedly flattering. The Empire mill is crushing rock which pays well, and the mines of the company give promise of an abundant yield of good ore. The Homestake is also busily engaged crushing rock of a superior quality.

The New York company, at Silver Peak, has suspended operations, and they will be compelled to remain idle till new machinery can be procured. The reason assigned for the suspension is, that the Thunderbolt Crusher which they erected in their mill has proved a failure. [We predicted this.—Eds. Press.]

The Challenge company, at Columbus district, took a ton of ore from the Plata ledge some time ago and had it worked by a mill at Dayton, from which they received the very satisfactory return of $324 in silver and $15 in gold.

Humboldt—

The *Register* has the following items:

The Seminole tunnel is now in 94 feet, and rock so much improved that greater speed is making than formerly. Superintendent Davis showed us rich croppings from the Seminole ledge, taken at a point 700 feet above the tunnel level. Balhach made an assay of an average of these croppings, showing a value of $82 40 in silver to the ton of rock.

The Silver Bullion Series, Indian district, is coming out a fine claim.

The Monroe company continues the work of development, and that ledge of fine auriferous quartz gradually widens as depth is attained.

The Pioneer company, in this district, John C. Fall, agent, is driving ahead with work in the Chameleon and Inskip claims. Prospect in the Chameleon good. The Pioneer mill, in the hands of Mr. Torrey, has been put in excellent working order, and is prepared to run day and night—batteries and pans—if the supply of rock is sufficient.

George Faulkner, one of the owners of the Sheba mill and mine, is back from the Bay, and making preparations to start the mill. He has some hundreds of tons of Sheba ore, some of Yosemite, and expects considerable quantities from the De Soto.

The Essex claim, adjoining the Empire, is prospecting well under work, and the owners are pleased with its appearance—thinking it will prove as good as the Empire.

The Nevada.—The contractors last week completed their work in this claim, but closed short of the ledge. The company has resumed work, expecting to put the tunnel in about 25 feet further. All the miners' signs indicate an early strike.

Col. Silver, of the Empire Tunnel claim, is now in San Francisco making his arrangements for a mill that will crush 25 tons of ore per day. A mill site below Dun Glen, commanding a plenty of water for steam purposes and convenient to the mine and to wood, has been secured.

Sultana Series.—Roots has his working shaft in this claim about 90 feet deep—still sinking, and expecting soon to strike the upper wall of the first ledge.

ARIZONA.

Five hundred ounces of gold dust from the Linn's Creek and Weaver district placer mines, and a considerable amount of gold from the Vulture lode, were brought to Los Angeles by Mr. Goodwater recently. Some of the placer nuggets are worth one hundred dollars each. Mr. G. brought also some silver bricks from the Patagonia silver mine, belonging to Mowry & Co.

IDAHO.

The *World* of April 28th, says: The ditches are now full of water, and the mining community are busily at work. Very few idle men are to be seen on the streets. The claims in Elk and Moore's creeks still afford work for a large population, and the banks of both streams are rapidly caving in under hydraulic pressure. The claims on the bars heretofore neglected are generally paying better than even their sanguine owners anticipated. The supply of labor is nearly equal to the demand, though in some localities more men are wanted than can be found. Wages continue at six dollars per day, and seven dollars per night.

OWYHEE.

The Ainsworth mill, on Sinker creek is to be overhauled and thoroughly repaired. A new double turbine wheel is to replace the old arrangement, and the steam works are to be fitted up also. The *Avalanche* of 21st April says: "The company are vigorously prosecuting work on the Surplus ground of the Oro Fino, and have already considerable pay rock out at the mine, and to facilitate the work, have erected a whim for raising water and rock. All things considered, the Sinker mills have a scene of prosperity not far ahead."

"A large number are preparing for extended prospecting for many miles round, making Owyhee headquarters. Discoveries are daily reported."

The same paper says of the Adriatic: "The ledge bearing this name lies across at the mouth of Coffee Gulch—one mile west of Silver. Upon an examination, last week, we found a tunnel in the first extension south, and a shaft down twenty feet. In the tunnel the ledge was a mere seam, and at the bottom of the shaft fully six feet wide and increasing very fast. Assays of the rock range from $28 to $900 per ton."

Freight from San Francisco to Owyhee is now only fourteen cents per pound! This is via the Sacramento river and Pacific railroad.

MONTANA.

The Pen d'Oreille route is open for pack animals. The *Radicator's* correspondent at Jefferson Gulch, says: "The result of the past two weeks mining has surpassed the most sanguine expectations.

I have seen a nugget taken out today by Frank Ireland & Co., that is valued at $276 25, the largest one found in this gulch I believe.

Mr. Wate in digging a drain ditch to his claim picked up $1,060 without sluicing or washing the dirt.

Mr. Martin on the claim immediately adjoining the one above mentioned, rocked out $54.89 in less than two hours with a small hand rocker and no one to help him. Messrs. Gunsaulis & Co., in the lower district, have struck upon very rich deposits in their ground with prospects varying from three to five dollars to the pan of dirt. Messrs. James Ware and Allen, I am informed, have the richest claims in Barris district, yielding from twenty-five to fifty and even as high as one hundred dollars to the pan of dirt.

In regard to quartz lodes I have but this to say, that there have been quite a number found in the upper district, none in the lower that I know of. Among them are the Montana, Grey Eagle, Luella, Emma Davis, Divide Lode, etc. How rich these ledges are I am not prepared to say. There will be two mills erected here the coming summer."

James Kennedy, expressman from Blackfoot City to McClelland gulch, informs us that the gulches in that vicinity are turning out much better than the most sanguine anticipated. McClelland has been mined all winter. Lincoln gulch has proved a success; the gulch generally pays well. One party has been offered $4,000 for a third of the dirt taken from one drift during the winter.

OREGON.

The Dalles *Mountaineer* of May 4th says: Two hundred and forty pounds of quartz taken from Columbia ledge, near Vancouver, assayed $26.29 of gold and silver. The rock was not selected, but taken from a quantity thrown out by a blast sunk two feet in the ledge.

Mr. W. H. Farrar has just finished working five hundred pounds more of the Vancouver quartz, the result of which was assayed by King, Myrick & Co., and a good return is shown. Placer diggings have been found that pay well, in the vicinity of the ledges, which is about fifteen miles north of Vancouver.—*Oregonian.*

BRITISH COLUMBIA.

The road to Big Bend was opened at last accounts. Those from California and elsewhere, who had gone via Victoria, had arrived at the diggings; while those who wintered at Colville, or who had attempted to go up via Portland and the Columbia river, had not yet been able to reach their claims.

COLORADO.

The following are from the Colorado *Journal*:

We are told that some parties owning the Barker lode in Eureka, and who have had it bonded some two years, are now clearing $1,000 a week by working it and selling their ore to the Lyon Smelting Works.

There is more real excellent ore moving in different directions just now than for a long time before. Keith has the pressing offer of perhaps one hundred cords at $300 to $350 a cord. Everybody wants a test of his ore before building one of the furnaces.

Mr. Adams has the finest show for ore in the Burlington lode we have ever seen. A shaft one hundred and sixty feet in depth, and a drift of one hundred and ten feet long, both all the way disclosing a fine crevice. He is giving the C. & T. Desulphurizers a fair trial, preparatory to adopting Keith's.

The Denver *News* of April 25th, says: We looked at the little lump of bullion from Lynn's works last evening, at the express office. It weighs eighty pounds, twenty-five per cent. being gold, and the balance silver, and is worth in coin value, about $6,500. This piece of bullion, from Gregory ores, is the product of one of Lyon's furnaces, the other undergoing repairs.

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WM. H. KEITH & CO'S WINE OF PEPSINE, OR RENnet Wine, a new and efficacious remedy for Dyspepsia, Gastralgia, etc. WM. H. KEITH & CO'S GLUCOLEIN, a new and valuable compound of Cod Liver Oil put up in glass jars. WM. H. KEITH & CO'S LEMON APERIENT, or Purgative Lemonade, an agreeable, cooling and active purgative, or mild laxative, as required. WM. H. KEITH & CO'S SAPONACEOUS TOOTH POWDER, DEVINE'S PITCH LOZENGES, for the cure of coughs and colds. Wm. H. Keith & Co's Florentine Tooth Wash. Wm. H. Keith & Co's Granula Effervescent Citrate of Magnesia. Wm. H. Keith & Co's Rosemary and Castor Oil Hair Invigorator.

WM. H. KEITH & Co. being in frequent communication with Eastern and European markets, are continually renewing their stock of Pure Drugs, Rare Chemicals, Fancy Goods, and Toilet Articles. Pure Oils, etc. They also give special attention to replenishing ship medicine chests.

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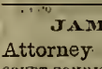

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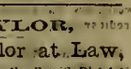

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25v9

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MINING ENGINEER,

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Will examine, survey and report upon mines, and conduct and advise concerning investments in mining property, or the machinery management and expenditures of mines.

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Informs his patrons that he has removed his DRAWING SCHOOL from Pine street to

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Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done.

20v11-3m

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The Proprietors of the MINING AND SCIENTIFIC PRESS have on hand a Half Medium Ruggles Engine Job Press, in condition good as new, which will be sold cheap, or exchanged for a good Hand-Press of medium or large size.

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C. W. H. SMITH. W. B. EWER. A. T. DEWEY.

DEWEY & CO., Publishers.

OFFICE—No. 505 Clay street, corner of Sansome, 2d floor.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

American and Foreign Patents.—Letters Patent for Inventors can be secured in the United States and foreign countries through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. We offer applicants reasonable terms, and they can rest assured of a strict compliance with our obligations, and a faithful performance of all contracts. For reference, we will furnish the names of numerous parties for whom we have obtained patents during the past two years.

Favorable to Inventors.—Persons holding new inventions or machinery and important improvements, can have the same illustrated and explained in the MINING AND SCIENTIFIC PRESS, free of charge, if in our judgment the discovery is one of real merit, and of sufficient interest to our readers to warrant publication.

Payment in Advance.—This paper will not be sent to subscribers beyond the term paid for. The publishers well know that a good journal cannot be sustained on the credit system.

Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

Mr. S. D. Woods, will correspond and act as Agent of the MINING AND SCIENTIFIC PRESS in the Interior.

San Francisco:

Saturday Morning, May 19, 1866.

A VALUABLE MINE.—We learn from a very reliable source that Hayward's mine, on Sutter Creek, Amador county, netted to Mr. Hayward, the fortunate and sole owner, the nice little sum of $47,000, for the month of April last. Mr. Hayward has two mills upon this mine—one of 16 stamps and the other of 40. The 16-stamp mill is said to pay all the expenses of mining and crushing for both mills, leaving the total earnings of the 40-stamp mill as clear profit. This mill is thoroughly cleaned up once every two weeks, with a very uniform result, ranging from $21,000 to $23,700 per clean-up. The former is the lowest and the latter the highest amount yet realized for a two-weeks' run. Six years ago this mine was not paying expenses. It was then worked but a short distance below the water level. Their deepest shaft is now down 1,110 feet. This may be put down as another result of perseverance in mining, and additional evidence of the importance of following our quartz mines down to a lower depth than has heretofore been generally attained, before we pronounce them failures.

A VALUABLE MINE.—Bullion to the amount of $22,000 was recently taken out of the rock obtained while sinking a shaft one hundred feet deep, and eight by six feet in size, on the Long Tom mine, situated about eighty miles south of Visalia, in Tulare county. The mine is owned by Geo. D. Roberts & Co. They have a 10-stamp mill on the same, and are now prosecuting the work of development by drifting from the bottom of the shaft. The rock, so far as they have gone, looking equally as well or better than in the shaft. A 20-stamp mill was shipped from the Union Foundry, in this city, about two weeks since, for the Mammoth Mining Company, on Kern River, ten miles this side of Clear Creek. This is an old mining property, and consists of several independent mines, all of which have recently passed into the hands of a new company. The principal lode has been worked upon the surface for a distance of about 2,000 feet, averaging from four to fifteen feet in thickness. The present owners are Geo. D. Roberts, A. W. Baldwin and O. A. Sanborn.

TO MINE OWNERS.—A young man, a graduate of one of the European mining schools, is desirous of employment by some mining company. He comes well recommended and refers to Riehn, Hemme & Co., assayers of this city. See advertisement in another column.

A BOOT NAILING MACHINE.

Mr. E. T. Barlow, of this city, has submitted to our inspection a machine of his invention, designed for nailing boots or shoes. The machine takes a small coil of wire into its embrace, and with the boot or shoe firmly placed upon an iron last, makes its nails as they are driven. The nails are forced firmly and squarely into the leather, and headed upon both sides by the upsetting power of the machine. It can be set to make and drive any desired length of nail from a sixteenth of an inch to a foot or more in length. If the nail, by any small inaccuracy in setting the machine, happens to be a trifle too long for the thickness of the leather designed to be fastened together, the excess of length is taken up by upsetting or kinking, which latter always occurs in the center of the leather, at equal distances from the two points of contact. The sole of the boot is readily directed by adjustable guides, and the nails may be driven at any distance apart, so that the same machine may be used for both the finest or the coarsest work. The machine is also applicable to harness or any similar work, or for nailing small boxes, such as cigar boxes, etc., where great accuracy or speed is desirable in driving the nails. The entire machine is so simple in its construction that it may be operated by a child, and may be driven by hand or the application of power. It is worked by a crank or by pulley motion. Only one other machine devised for this kind of work has ever been invented, and that is a French invention, which was exhibited for a few days during the last Fair of the Mechanics' Institute. There are many defects in that machine which are entirely obviated in this, to say nothing of the fact that Mr. Barlow will be able to sell his machine for less than half the price of the French invention. Mr. B.'s machine will work two or three times as fast as the French, and requires no after finishing as is the case with that. The French machine, we are informed, is not allowed to be manufactured in this country; the inventors holding patents both here and in Europe, manufacture in France only. This machine may be seen in operation on and after Monday next at the residence of the inventor near the Railroad Machine Shops on Brannan street.

BLAKE'S CRUSHERS.—This Pioneer Crushing Machine appears to be fast winning its way to public favor. Captain Lee, of the Empire Mill Grass Valley, has had one of these crushers, the largest size made, forwarded to his new mill from the Union Foundry in this city. Last week two of these machines were sent to Gold Hill, Nevada, one of which was for the Crown Point mill. The Crescent mill company, at Indian Valley, Plumas county, had one of these rock crushers put up in their mill last fall. They say that it daily saves the labor of twelve men, or over $10,000 per annum. One of these machines is also used at the Gould & Curry mill in Virginia City, where it saves a vast amount of labor previously employed in reducing the rock to the size necessary for feeding to the batteries of their immense mill. A similar result is reported of its working at Birdsall & Carpenter's mill at Dayton. These machines are manufactured at the Union Foundry in this city.

PIONEER TYPE FOUNDRY ON THE PACIFIC COAST.—Messrs. Wm. Faulkner & Sons are engaged in preparing an additional story to their establishment on Clay street, for the purpose of opening the first regular type foundry on the Pacific Coast. We presume it to be the first manufactory of the kind west of St. Louis, if not the only one west of Cincinnati. It will be a branch of James Conner & Sons' United States Foundry, New York, for which firm the Messrs. Faulkners have been agents for some ten years. Four or five workmen are now engaged in the East in manufacturing the matrices and other utensils necessary for a complete foundry. This new and important branch of manufacturing is expected to commence operations by August next, which event will be hailed with much satisfaction by the printing fraternity on this Coast, which has long felt the necessity of such an institution.

NEW PUBLICATION.

THE MILLER'S, MILLWRIGHT'S AND ENGINEER'S GUIDE. By Henry Pallett—Illustrated. Philadelphia: Henry Cary Baird, Industrial publisher.

The author of the above work appears to be a practical man, and, according to his preface, he has devoted much time to personal investigations in regard to the subject upon which he treats, having traveled through most of the States of the Union for the purpose of observing the various manners in which different millers manage matters in the various establishments under their care. The idea is a good one, and might be most advantageously carried out by individual mill owners among the quartz mills of the Pacific coast. It is obviously advantageous to a millman to move about at a distance from his own locality, and observe the practice of those perhaps more experienced than himself; else he will never be able to improve on what may possibly be the very imperfect milling of his own immediate district. The work before us is more especially intended for persons engaged in flouring mills; but contains much information of value to millmen everywhere, and should be in the hands of every mechanic. For sale by Roman & Co., of this city.

THE BIG TREE OF CALAVERAS ECLIPSED.—It is stated that Mr. Throckmorton, who owns a rancho embracing some 20,000 acres, in Marin county, has recently discovered a stump on his grounds which takes the palm from the big trees of Calaveras county. This stump is 52 feet 5 inches in diameter, and is now used by Mr. T. for a corral. The T. Starr King, the biggest of the Calaveras grove, is only fifty feet in circumference, and the big stump covered by the Stump House but seventy; while the stump on Mr. Throckmorton's ranch, if the above report is correct, must be nearly 160 feet in circumference. It may be that a slight error has been made in the report by substituting diameter for circumference. We should be pleased to hear from any one who has personal knowledge of the existence and size of this newly discovered mammoth relict of a primeval forest.

THE BUCKEYE FLOUR MILL.—This mill, situated at Marysville, is one of the largest and finest mills in the State. The engine is 140-horse power, driving four run of stone, which grind 300 barrels of flour every twenty four hours, besides ten tons of corn and thirty of barley. So perfect is the working of the engine, that the amount of fuel necessary to twenty-four hours' grinding, is only six cords of wood. The present mill was built in July, 1865, and has been in constant operation since. A large and commodious storehouse, two stories high, and capable of holding 600 tons of grain, is to be added during the summer. It is to be constructed so that grain can be stored in bulk, thereby saving a large amount of labor and expense for sacking. The mill is owned by A. D. Starr. The engine, which has the largest driving wheel in the State, was built by Prescott & Scheidell of the Marysville Foundry.

THE MARYSVILLE FOUNDRY.—This foundry, situated at a central point of communication with the northern sections of this State, and the States and Territories beyond the Sierra, is prepared with all the appliances and facilities of furnace and mouldings to fill all orders from the construction of a simple shaft, to the finish of the largest mill. Many large and flourishing mills, both flour and quartz, in this State and the most distant Territories, attest the skill connected with this foundry. Engines from ten to one hundred horse power, are built at the shortest notice. The skill and experience of the proprietors has gone far to make it one of the best foundries on the Pacific coast. An experienced draughtsman, familiar—by constant study of new models and inventions—with all the valuable improvements in machinery, lends his skill to the reputation daily achieved by the successful operators of the foundry. Messrs. Prescott & Scheidell are the proprietors—names that carry evidence of success.

A WATER QUERY.

MESSRS. EDITORS:—A hydraulic wheel, (Frendenburr's, for instance), two feet in diameter, with sixty inches of water and one hundred feet head, will give a certain horse-power; now, if the wheel is increased in size to four feet in diameter, the other conditions remaining the same, will there be an increase of power?

L. H. L.

Pioneer City, Cal., April 11th, 1866.

Theoretically there will be none, or if any, very slight. For the quantity of water and head given, practical mechanics say that the two-foot is sufficiently large. The size of the wheel may perhaps depend somewhat upon the required motion of the machinery to be driven. Convenience, therefore, is an element not to be overlooked. The velocity of the buckets in each case being the same, it is evident that with the same supply velocity of water, the two-foot wheel will make two revolutions to one revolution of the four foot wheel. And on this account the friction of the smaller wheel is some greater than in the case of the larger. Therefore to answer this question more practically, it is necessary to know all the facts. We have answered as if the quantity of water was taken at sixty inches under a six-inch head, and then applied to a Frendenburr's Wheel, the fall being one hundred feet.

DID NOT SUCCEED.—We understand that the Crosby & Thompson's desulphurizer, which was recently put up at the Enterprise company's mine, in the Meadow Lake district, Nevada county, has not proved a success. It is said to have worked well for awhile, but soon burned out. We have heard it intimated that the machinery was faulty in construction, and that with certain modifications there is reason to believe it might yet be made a success. We should be pleased to receive a more particular account of the trial, and learn more fully the exact nature of the defects noticed, and the modifications proposed.

NEW CONCENTRATORS.—Five of Hendy's Improved Prater Concentrators were forwarded from this city, last week, as follows: Three to the Benton mill, and one to the Bear Valley mill, Bear Valley, Mariposa county; one to the Gold and Silver mining company's mill, near Newcastle, Placer county. Two of these machines are now building at the Pacific Foundry, for the Triunfo company, Lower California and another at the Fulton Foundry, for the Louisiana company, Mariposa county.

PACIFIC COAST BUSINESS DIRECTORY.—Henry G. Langley, the enterprising publisher of the San Francisco City Directory, announces the early publication of a comprehensive business directory for the Pacific Coast. Works of similar character are now sustained in seventeen of the Eastern States, and it is believed that a directory for this Coast can be made an important medium for dissemination of valuable information connected with the business facilities of our own merchants, manufacturers and others. For a really practical and useful work of this description, we know of no party who could undertake with better chances of success than Mr. Langley. See his advertisement in another column.

A MINING BUREAU FOR MONTANA.—We have received from the Secretary, Mr. Francis C. Deimling, a copy of the prospectus of the *Mining Bureau of Montana*, with the rules and regulations and names of officers and members. The object of the association is to provide some reliable source for the dissemination of reliable information with regard to the mines and mineral resources of that region. The institution is in a position where it can be made an instrument of great good, and if it is managed by competent and reliable men, it will doubtless prove a valuable medium for the dissemination of useful information.

COLOR-BLINDNESS is not a disease of vision but rather a remarkable condition of vision. Dalton discovered his color-blindness by hearing a geranium called red which he had thought a light blue. Dugald Stewart could not tell a cherry from its leaves except by the form.

BUSSEY'S LOCK.—Next week we shall give a description of this new and effective burglar-proof lock.

NEW FOUNDRY.

A NEW ENTERPRISE AND HOW IT WAS INAUGURATED.—On the corner of Tehama and Fremont streets have lately been erected several large buildings by Messrs. Hanscom & Co., as the foundry and machine shops of the Ætna Iron works, of which they are proprietors. On Tuesday last we received an intimation that on that evening the new works would be dedicated; so we drifted out that way soon after nightfall, and were surprised to see the large building intended for the pattern and machine department, brilliantly lighted up, and on entering to behold in the lower room, which was gaily trimmed with flags and streamers, two long tables loaded with a tempting display of dainty and substantial viands, and ornamented with beautiful boquets of flowers; and in the upper hall—a room 40 by 75 feet, to meet not less than 250 people, either dancing to the cheering music of Willis' band, or happy lookers on of the scene.

The dance went on till midnight, when the merry throng adjourned to the dining hall to partake of the rich and bountiful repast spread before them, after which they again assembled in the hall, to properly close the dedication services, and to deliver over the building to the Spirit of Industry that is hereafter to preside there. Everything went on as "merry as a marriage bell," and all pronounced it the grandest surprise party of the season.

It seems not out of place here to say that this enterprise is started by men possessed of energy and a thorough practical knowledge of their business. They are prepared to turn out light or heavy machinery in the finest manner. In their moulding and finishing departments everything is of the latest and most improved designs, and their workmen are as skillful operatives as can be procured on this coast. Their workshops are commodious, well lighted and well ventilated. The buildings are all made in a firm manner and with careful reference for convenience. The machine shop is two stories in hight, fronting seventy-five feet on Fremont street, by forty-five feet in depth; engine house, seventeen by twenty-six feet; blacksmith shop, twenty-five by twenty-five feet, and the foundry, forty by fifty-five feet. A McKenzie blower is used with the furnace. The capola has a capacity for melting six tons of iron per day. A 16 horse power engine drives the machinery. Having long known two of the young gentlemen comprising the firm, we take pleasure in saying they are worthy of the success they seem bound to win by the substantial and enterprising manner in which they have commenced operations.

PAPER FROM WOOD PULP.—A despatch dated Philadelphia, April 12th, says:

A large number of capitalists, journalists and gentlemen of scientific renown, gathered here to witness the process of making paper out of wood. The company owning this process have established large works on the Schuykill river, near Philadelphia, where there are accommodations for making twenty tons of wood-pulp paper daily. They are owned by capitalists from all parts of the country, who witnessed every detail of the process. The company have achieved a great success. A poplar tree taken from the hillside was converted into clear, white, soft paper in the space of five hours. In the evening a banquet was given by Messrs. Jessup & Moore, at the Continental Hotel. About 200 guests were present. The Mayor of the city, the Hon Morton McMichael, presided; and speeches were made by Horatio Gates Jones, Vice-President of the Historical Society; the Hon. Mr. Jencks of Rhode Island; Theodore Tilton of the *Independent*; Erastus Brooks of the *Express*, and many others.

THE EUREKA MILL at Grass Valley, cleaned up for the twelve days run ending May 5th, $29,700.

TOWNE & BACON, Print—
Stock Certificates,
Assessment Receipt Books,
Transfer Journals,
Circulars,
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Cards,
Billheads,
And every kind of Job Work that may be desired.
A NEW ARTICLE OF TAGS FOR GROCERS' USE
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MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AMT OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE
Assurance, Monterey co, Cal, 25c		May 11	May 29*
Alpha, Gold Hill, $50		May 25	June 25
Adams' Petroleum, $5		April 30	May 19
Batopilas, Chihuaha, Mex., 25c		May 10	May 28*
Belcher, $60		April 30	May 30
Belcher, Baldwin & Abarnathie Co, $20		April 30	May 30
Bullion			$10 00
Barreteros, Sonaloa, Mex., $5		May 10	May 28
Bunker Hill, El Dorado co., $1		May 23	June 11
Capitola, Santa Clara co., Cal., 10c		June 12	July 2*
Cosala, $1		April 26	May 12*
Confidence, Storey co., Nev., $25		May 4	May 18
Capitola, 10c		June 12	July 2*
Colc. Silver, $1		June 11	July 5
Crown Point		Annual Meeting	June 4
Crown Point			Dividend
Dios Padre, Alamos, Mex., $3		June 5	June 23*
Daney, 50c		May 12	June 9
Eagle, Austin, Nev., $1		June 16	July 6*
Evoca Consolidated Copper		Annual meeting	May 24*
Evoca Cons, Cop., Del Norte co.; Cal., 25c		June 6	July 1*
Geo. Washington, Alpine co., Cal., $1.00		June 9	June 26*
Great Basin, Humboldt co., Nev., 9c		June 12	July 2*
Green, Storey co., Nav		Annual Meeting	June 6*
Gold Hill, Storey co.,, Nev., $1		June 15	July 15*
Hanscom, Copper, Del Norte co., 15c		May 1	May 21*
I. X. L., $1.50		May 17	June 7*
Imperial			Dividend
Independent, Coal			Meeting June 1
Kentucky, $1		May 8	May 30*
Keokuk, Contra Costa co., Cal., 10c		May 21	June 11*
Leland, Arizona, 25c		June 30	July 16*
Lady of the Lake, Arizona, 25c		June 30	July 16*
Lady Franklin, Alpine co., Cal., 25c		May 7	June 5*
Lady Bell, Low Divide, Cal		June 9	June 28*
La Victoire, $1		May 4	May 21
Mina Rica do las Flores, $1		June 19	July 16*
Maria, Chihuaha, Mex., $2		May 7	May 28
Nuestra Sra de Guadelupe, Durango, Mex., $1		June 2	June 20*
North Star, Lander co., Nev, $25		May 14	June 6*
Old Colony, Austin, Nev., $3		June 18	July 9*
Providence		Annual Meeting	June 21*
Rippon, Alpine co., Cal., $1		June 11	June 26*
Refugio, Chihuahua, Mex., $2½		May 21	June 6*
Salamander, Calaveras co., Cal		Annual Meeting,	May 21*
Silver Queen, Lander co., Nev., $1		June 23	July 23*
Simpson & Bossell, Carson Valley, $1		May 25,	June 14*
Sierra Valley, Plumas co., Cal., $1		May 31	June 18*
San Francisco, Moss Ledge, $25		May 1	May 16*
Sweet Vengeance, $1		May 11	May 30
Siskiyou, $1.50		April 23	May 25
Salambo Copper, $1		May 8	May 29
Sierra Nevada, Storey co, Nev., $4		May 7	June 6
United States, Storey co, Nev., 50c		May 26	June 13*
Whitman, Lyon co., Nev		Annual Meeting	June 6*
Yankee Blade, $25		June 18	July 9*

*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 82½	$ 83
Gov. Legal Tender Notes	78½	79
State Bonds, 7 ₱ cent	84	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	..	..
San Francisco Bonds, 1858, 6 ₱ cent	72	73
Sacramento City Bonds, 6 ₱ cent	18	..
Sacramento County Bonds, 6 ₱ cent	58	65
Marysville Bonds, 10 ₱ cent	75	82
Stockton Bonds, 10 ₱ cent	77½	90
Yuba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	70	80
California Navigation Co	61	63
State Telegraph Stock	32	35
San Francisco Gas Co	108	110
Sacramento Gas Co	..	75
Spring Valley Water Co	68	69
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	59	61
Central Railroad Co	70	..
North Beach and Mission	57	59
MINING STOCKS.		
Alpha	$240	$245
Bullion, G. H.	79	80
Belcher	425	430
Gould & Curry	850	900
Empire M. & M. Co	170	175
Savage	975	1000
Chollar-Potosi	335	337½
Hale & Norcross	950	975
White & Murphy	..	..
Sierra Nevada	6½	9
Yellow Jacket	736	740
Overman	75	76
Crown Point	1190	1200
Antelope	..	..
Emeraida	1	6
Real del Monte	..	..
Buckeye	..	..
Dick Sides	..	..
Imperial	130	131
Ætna	..	..
Cedar Hill Tunnel	..	..
Wide West	..	..
Sierra Buttes Quartz Co	..	..
Central	..	..
California	..	..

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—Inyo County News.

San Francisco Jobbing Prices Current.

Flour, ₱ bbl	6 00	@	6 50
Do Superfine	5 50	@	6 00
Corn Meal, ₱ 100 lb		@	3 50
Wheat, ₱ 100 lb	1 60	@	1 75
Oats, choice, ₱ 100 lb	1 90	@	2 05
Barley, ₱ 100 lb	80	@	85
Beans, ₱ 100 lb	3 50	@	4 00
Potatoes, ₱ 100 lb	60	@	1 15
Hay, ₱ ton	8 00	@	15 00
Live Oak Wood, ₱ cord	8 00	@	10 00
Beef, on foot, ₱ lb	6	@	7
Beef, extra, dressed, ₱ lb	12½	@	15
Sheep, on foot	1 00	@	2 00
Hogs, on foot, ₱ lb	8	@	9
Hogs, dressed, ₱ lb	12	@	13
Groceries, Etc.			
Sugar, crushed, ₱ lb	--	@	15
Do China	10	@	12½
Coffee, Costa Rica, ₱ lb	—	@	24
Do Rio	23½	@	24
Tea, Japan, ₱ lb	90	@	1 00
Do Green	70	@	1 00
Hawaiian Rice, ₱ lb	8	@	10
China do	7	@	8
Coal Oil, ₱ gal	75	@	80
Candles, ₱ lb	22	@	24
Ranch Butter, ₱ lb	37½	@	40
Isthmus do	35	@	45
Cheese, California, ₱ lb	16	@	18
Eggs, ₱ doz	40	@	50
Lard, ₱ lb	20	@	21
Ham and Bacon, ₱ lb	—	@	22½
Shoulders	20	@	22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45	@	50
do pickled ₱ lb	38	@	40
do Oregon	35	@	—
do New York, ₱ lb	50	@	—
Cheese, ₱ lb	25	@	—
Honey, ₱ lb	30	@	40
Eggs, ₱ doz	—	@	50
Lard, ₱ lb	28	@	—
Hams and Bacon, ₱ lb	24	@	26
Cranberries, ₱ gal	75	@	1 00
Potatoes, old, ₱ lb	1	@	2
do Irish, ₱ lb	2	@	3
Tomatoes, ₱ lb	—	@	—
Onions, ₱ lb	6	@	8
Apples, No. 1, ₱ lb	3	@	8
Pears, table ₱ lb	8	@	25
Plums, dried, ₱ lb	20	@	22
Peaches, dried, ₱ lb	16	@	—
Oranges, ₱ doz	50	@	—
Lemons, ₱ doz	75	@	—
Chickens, apiece	85	@	1 12
Soap—Palé & C. O	11	@	12
Castile	1	@	15

Occidental Homestead Association,

Office, 305 Montgomery street, San Francisco.

Capital Stock : : : : : : : $33,600

102 Shares, $330 Each.

THIS ASSOCIATION was formed to enable its members to obtain desirable homestead lots in this city, at a cheap and easy rate, paying for the same by regular monthly installments. For this purpose they have purchased blocks 499, 500, and 501 in the Western Addition to this city, bounded by Devisadero, Pine, Broderick and Clay streets. Subscribers will pay an initiation fee of $5 on each share taken, to form a fund for defraying current expenses, and $11 per month for thirty months, commencing in April, 1866. The property is within three blocks of the Turk Street Railroad, is nearly all on the grade, and is most desirably located for homestead purposes. It is directly east from the lands of the California Homestead Association. The property has been purchased on very reasonable terms, and offers a rare opportunity for investment. A number of fine houses are in process of erection, and streets are being graded near this property, which will greatly increase its value.

When twelve monthly payments have been made, the property will be divided among the members in the usual manner, and each shareholder will receive a contract for a deed to the lot or lots to which he may be entitled, and have the privilege of taking immediate possession of the same. The lots average 27 feet in front by 120 feet in depth. The whole amount due upon any lot may be paid at any time, and discount at the rate of 1½ per cent. per month will be deducted therefrom. Persons wishing to visit the lands of this Association will take the Turk street cars to Devisadero street, and thence go northerly along Devisadero to Pine street.

$20,000 of the capital stock is taken, and the books are open for subscription to the balance, at the office of the Secretary, where the Official Map of the Association can be seen, and all particulars obtained.

The Title to this property is perfect.

J. S. LUTY, Secretary.

Office 305 Montgomery street, corner of Pine, Rooms 2 and 6. 20v12 tf

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HOBBS, GILMORE & CO.,

MANUFACTURERS OF

BOXES!

Market street, between Beale and Main, San Francisco.

For sale, Mahogany, Spanish Cedar, and other Fancy Woods. 20v12-3m

Commercial Academy for Ladies & Gentlemen.

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To Mining Companies!

WANTED—A SITUATION, IN THE EMPLOY OF SOME Mining Company, by a young man, a graduate of the Clausthal School of Mines, and who has had had experience in the mines of Nevada. Address, 20v12 tf KLEIN, HEMME, & CO., Assayers, S. F

Preparing for Immediate Publication.

ONE VOLUME, OCTAVO.

THE PACIFIC COAST

BUSINESS DIRECTORY!

FOR 1866.

Price.....$5 00,

Payable on Delivery of the Work,

CONTAINING THE

NAMES, BUSINESS AND ADDRESS OF ALL MERchants, Manufacturers and Professional Men, in the States of California, Oregon and Nevada, and the Territories of Washington, Idaho and Montana; also, lists of the Commercial, Agricultural, Manufacturing, Mining, Petroleum, Railroads, Telegraph, Banking and Insurance Companies in operation at the present time in the above States and Territories, to which will be added such other items of information as will render the work a VALUABLE and RELIABLE MEDIUM OF REFERENCE.

Compiled by the Editor of the San Francisco Directory, State Register, etc.

In announcing the above enterprise, the compiler deems it unnecessary to refer more particularly to its contents, he would state, however, that it shall be his aim to present a work of practical utility to all who are interested in the development of the resources of the Pacific coast. For the fulfillment of this, he respectfully refers to the different compilations issued under his charge for the past ten years.

HENRY G. LANGLEY, Publisher,
612 Clay street, San Francisco.
San Francisco, April 19, 1866. 20v12

FLORENCE

SEWING MACHINES!

COPY OF THE REPORT OF THE COMMITTEE OF AWARDS AT THE FAIR OF THE

AMERICAN INSTITUTE,

New York, 1865,

—TO THE—

Florence Sewing Machine Company,

FOR THE BEST FAMILY SEWING MACHINE.

HIGHEST PREMIUM—GOLD MEDAL!

REASONS:

1st.—Its simplicity and great range of work.

2d.—The Reversible Feed Motion.

3d.—The perfect finish and substantial manner in which the machine is made.

4th.—The rapidity of its working and the quality of the work done.

5th.—The Self-adjusting Tension.

The "FLORENCE" was awarded the First and Highest Premium at the State Fair of California, the only Fair on the Pacific Coast at which any two double thread Sewing Machines were exhibited in competition in 1865.

The "FLORENCE" received the only premium awarded by the Mechanics' Institute of San Francisco, in 1864 and 1865, to any Sewing Machine, Sewing Machine Company, or Agent. The claim of a competitor to a medal is without any foundation whatever.

Wherever the "FLORENCE" has been brought in competition with other Sewing Machines, it has always been declared the best. It is the most simple, the most substantial, the most efficient, and its use is easily learned. Every Machine sold is guaranteed in the full sense of the word.

Send for Circulars and Samples of Work.

SAMUEL HILL, General Agent,
20v12-14w 111 Montgomery street, San Francisco.

Rheumatism!!

READ IT! READ IT!!

SACRAMENTO, April 16th, 1866.

H. BOWMAN—DEAR SIR: THIS IS THE FIRST WRITing I have done in two years, and it affords me great pleasure to be able to use my pen in the service of those who are suffering, as I have suffered, by stating the following facts:

I have for two years and upwards been afflicted with CHRONIC RHEUMATISM, and until a few weeks ago I have never found anything that afforded me any relief. For three months of the time I was unable to feed myself, and for the last five months my arms have been so bent that I have not been able to dress myself. I was five months at the Warm Springs, at San Luis Obispo, and three months at a Hydropathic Institute in Stockton, and I have been under the care of six different physicians, in the vain hope of relief. About four weeks ago I was induced by a person who had been cured by it to try a bottle of RICHARD'S REMEDY FOR RHEUMATISM, and in less than twelve hours I experienced great relief. In a few days I was enabled to straighten out my arms, and I have been getting better and gaining in strength and flesh ever since. I have now the complete use of all my limbs, and, for the first time in two years, I am out of pain. I do feel for those who suffer as I have suffered, and if they will take my advice, they will lose no time in giving the REMEDY a trial.

Yours truly, GEORGE TAYLOR.

RICHARDS' REMEDY is for sale by

H. BOWMAN,
Druggist, Sacramento.
Price, $2 50 per Bottle. 20v12

PACIFIC POTTERY!

STONEWARE AND EARTHENWARE OF ALL DESCRIPtions, such as Butter Pots, Pickle Jars, Churns, Water Jugs, Bean Pots, Flower Pots, etc., etc., from the manufactory of N. CLARK, Esq., Sacramento—constantly on hand and for sale, in quantities to suit, by J. M. PAGE,
20v12 3m No. 42 Clay street, between Drumm and Front.

Our Circulation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

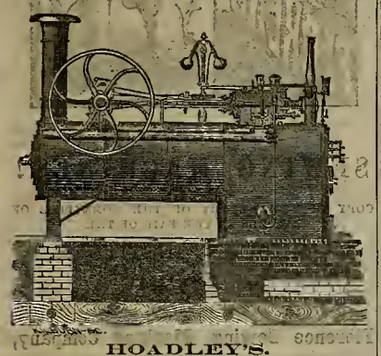
Portable Steam Engines!

"Hondley's" and "Hittinger's" Make,

HOADLEY'S.

FOUR SIZES,

8, 10, 12, and 15-Horse Power,



HOADLEY'S.

3 to 40-Horse Power.

HITTINGER'S.

THREE SIZES,

5, 7, and 10-Horse Power,

HITTINGER'S.

TWO SIZES,

5 and 7-Horse Power,

COMBINING THE MAXIMUM OF EFFICIENCY, durability, and Economy, with the Minimum of weight and price.

These Engines are favorably known a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mill's.

For sale by TREADWELL & CO.,
18v12 Corner of Front and Market streets.

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G. KUSTEL,

Metallurgist and Mining Engineer,

Stevenson House, corner Montgomery and California sts.

Ores Analyzed,

Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.
20vII 3m

BOALT & STETTEFELDT,

Metallurgists and Mining Engineers

AUSTIN, NEVADA.

Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

G. W. MAYNARD. J. H. TIEMANN.

MAYNARD & TIEMANN,

Mining Engineers and Metallurgists,

240 Pearl street, New York,

—AND—

CENTRAL CITY, COLORADO.
19v12-1y

W. A. GOODYEAR. T. A. BLAKE.

GOODYEAR & BLAKE,

Civil and Mining Engineers

—AND—

Metallurgists.

Among others, refer by permission to—
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DR. JOHN TORREY, U. S. Assayer, New York City.
W. C. RALSTON, D. O. MILLS, Bank of California.
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Address, P. O. Box 2,092, San Francisco, Cal. 9v12qr

EUROPEAN

METALLURGICAL WORKS,

—AND—

Practical Mining School,

Bryant Street, Between Third and Fourth,

SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) refractious ores, are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

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The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

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Copper, Lead, Gold, Silver,

Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates at interest. For particulars apply to

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ASSAY BALANCES,

LADD & OERTLING'S,

For sale low, by

ISAAC S. JOSEPHI & CO.,

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Copper Ore! Copper Ore!

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CONROY & O'CONNOR,

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PURCHASE OF COPPER ORES,

Assaying eight per cent. and upwards of Copper to the We will make advances upon Ores of Copper.
San Francisco, Post Office Box 1259. 22

SODIUM,

Potassium, Magnesium,

And a fresh supply of

PURE CHEMICALS.

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WILLIAM PENROSE,

Agent for Messrs. Vivian & Son and Dillwyn & Co., Smelters at Swansea,

Is prepared to buy in any quantity

COPPER, SILVER, GOLD, LEAD

AND OTHER VALUABLE ORES;

Also Lead Bars Containing Gold and Silver,

☞ Full value paid on delivery in this City. ☜

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Etc., On hand and Manufactured to order.

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MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.
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ARTIFICIAL LEG,

Manufactured in Philadelphia, Penn.

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FIRE, HYDRAULIC & SUCTION HOSE,

And Leather Belting.

M. M. COOK & SON,

801 Battery Street, San Francisco,

Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.

The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO

CORDAGE MANUFACTORY.

CONSTANTLY ON HAND,

A Large and Complete Assortment

—OF—

MANILA CORDAGE,

FOR MINING PURPOSES

—ALSO—

WHALE LINE, BALE ROPE, ETC.,

Manufactured from Pure Manila Hemp.

Hoisting Ropes for Deep Shafts,

—ALSO—

Lines for Ferry Boats,

Manufactured to Order.

Office at TUBBS & CO.'S,

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OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LAW PRICES.

J. R. MEAD & CO.,

8v10 Cor. of Washington and Sansome streets

Clay Street. PAPER WAREHOUSE AND Printers' Material CHAS. P. ROBBINS & CO. 10-v12 Clay Street.

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

[Written for the Mining and Scientific Press.]

Letter from Table Mountain.

MESSRS. EDITORS:—The Table Mountain, in Tuolumne county, has been often described, and I would not ask attention to another description, but for the fact that it opens to us a most interesting chapter of geological history. The mountain is an immense wall of hard, black lava, two or three hundred feet higher than the country on either side, with a level summit, as its name implies. It extends from Shaw's Flat, near Columbia, some twenty or thirty miles in a tortuous southerly direction. It is without doubt the product of volcanoes now extinct, situated a few miles above Columbia, and when fluid it ran down the course of an ancient river, filling its banks towards the valley of the San Joaquin, till it became congealed. The bed of this old river is now found far up the side of the mountains, and has been extensively worked by means of tunnels, with the usual success of river mining in California.

The point to which I wish to call attention is this: The once fluid mass of the mountain was walled in by the banks of the river. These banks must have been at least a hundred, and probably several hundred feet higher than the lava stream. Here and there may be found the junction of an ancient gulch, into which the fluid lava flushed back. But there are so few such places as to justify the inference, that the adjacent country was much higher than the lava. Now, what has become of it?

Some would say, "cut away by the ocean." But I find no marks of the ocean there so recent as Table Mountain. Yet, the old hills are gone that once covered Tuolumne county, at least three hundred feet above its present level, and even the bottom of the old river now overlooks the adjacent country. They are gone, and the method of their disappearance conveys some idea of the length of geologic periods. The storms of thousands of centuries have done the work. Each winter's rain brings down from the hillside a little sand, dissolves a little of the soluble particles of the rock and soil, and here we see the accumulated result. Rocks, soil and sand have all gone down the water courses to the sea.

The men who prospect for quartz never expect to find the veins crossing ravines, and it is almost considered a law of quartz veins that they "pinch out" at a water course. We may find the reason for this in the means by which the hills have been removed. The running water naturally carries away first the softer and more soluble rocks. Where it encounters a quartz vein, the thick out-croppings and hard wall rock will resist its action much longer than those places where the vein becomes thin. Hence, the waters make what may be called a "natural selection" at these points to break through the corner of a vein, and here the ravines are formed. Quartz veins pinch out at a water course, not because quartz shuns the water, but because the vein in its full size is better able to resist the action of the water.

J. A. JENNINGS.

San Francisco, December 22, 1865.

THE VALUE OF BOOKS.—Books are the windows through which the mind looks out. A house without books is like a house without windows. No man has a right to bring up his children without surrounding them with books, if he has the means to buy them. It is a wrong to his family. He cheats them! Children learn by being in the presence of books. The love of knowledge comes with reading, and grows upon it; and the love of knowledge in a young mind is almost a warrant against the inferior excitement of passions and vices.

Every child should have his little library, and learn to take care of and prize it. Parents cannot make a more profitable investment than to purchase a few useful reading books for their children; let them have a place for it apart from the general library, and call it their own. A child will read a book of his own with much more interest than he will a borrowed one, or one from his father's library, even. They may thus most readily be taught to love books, to take care of them, and become interested in reading them.

We always pity those poor rich men who live barrenly in great, bookless houses. Let us congratulate the poor, that in our day, books are so cheap that a man may every year add a hundred volumes to his library, for the price of what his tobacco and beer would cost him. Among the earliest ambitions to be excited in clerks, workmen, journeymen, and indeed, among all that are struggling up in life from nothing to something, is that of owning, and constantly adding to, a library of good books. A little library, growing every year, is an honorable part of a young man's history. It is a man's duty to have books. A library is not a luxury, but one of the necessaries of life.

ONE of our exchanges says: "Dr. Joseph Worcester, author of a dictionary, and inventor of Worcestershire sauce, is dead." Such is fame.

TO DREAM gloriously, you must act gloriously while awake; and to bring angels down to converse with you in your sleep, you must labor in the cause of virtue during the day.

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J. G. HANSCOM, H. A. SMITH. | T. PENDERGAST, W. W. HANSCOM.

HANSCOM & CO.,

Ætna Iron Works!

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Practical Machinists and Iron Founders,
MANUFACTURE
STEAM ENGINES,
QUARTZ MILL MACHINERY OF ALL KINDS,
SAW MILLS, FLOUR MILLS,
Dunbar's Improved Self-Adjusting
PISTON PACKING,

Now so extensively used in the East and in this State. Requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

HANSCOM'S CRUSHER,

The best of the kind now in use in this State or anywhere else.

Wheeler & Randall's New Grinder and Amalgamator,

Which only needs examination to be appreciated.

Tyler's Improved Water Wheel,

Giving greater power at lower cost than any wheel in use. Send for one of our circulars, giving full tables.

All Wheels warranted to give the power as set forth, or the money will be refunded.

Sole makers for this coast of the "Pendergast White Iron Stamp Shoes and Dies."

None genuine unless obtained from us. Every one warranted.

Patented Machinery of all kinds will be furnished by us at market prices. Particular attention given to drawings and specifications for machinery, which will be made to order. The patronage of the public is respectfully solicited.
19v-2

LEWIS COFFEY. | JAS. RISDON

LEWIS COFFEY & RISDON,

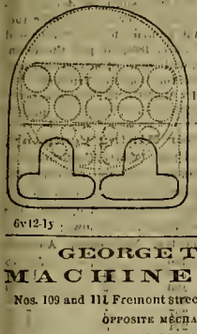
Steam Boiler & Sheet Iron Works.

THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work executed as ordered, and warranted as to quality.

Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

NEPTUNE IRON WORKS,

Corner of Mission and Fremont Streets,
SAN FRANCISCO.



MARINE,
Locomotive,
And all kinds of
HIGH PRESSURE
Steam Boilers
MADE.

All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.

All kinds of Sheet Iron and Water Pipe, Coal Oil Stills, Wrought Iron Worms, etc., etc.
Manufactured to Order.

Old Boilers Repaired
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GEORGE T. PRACY,

MACHINE WORKS,

Nos. 109 and 111 Fremont street, near corner of Mission,
OPPOSITE MECHANICS' MILL,
SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL,
And Quartz Machinery, Printing Presses,
AND
MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

☞ Special attention paid to Repairing. ☜ qy-3

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COPPERSMITH,

No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to.
13v11

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N. E. Cor. Fremont and Mission streets,
Manufacturers of
Marine and Stationery Engines.

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses
of the latest Improved Patterns.

Bradley's Improved, Patent WIND BLAST SEPARATOR, for Dry Crushing; Boux & Guiod's Amalgamator and Separator; Coal Oil Well Boring Machinery always on hand, or made to complete, on hand.

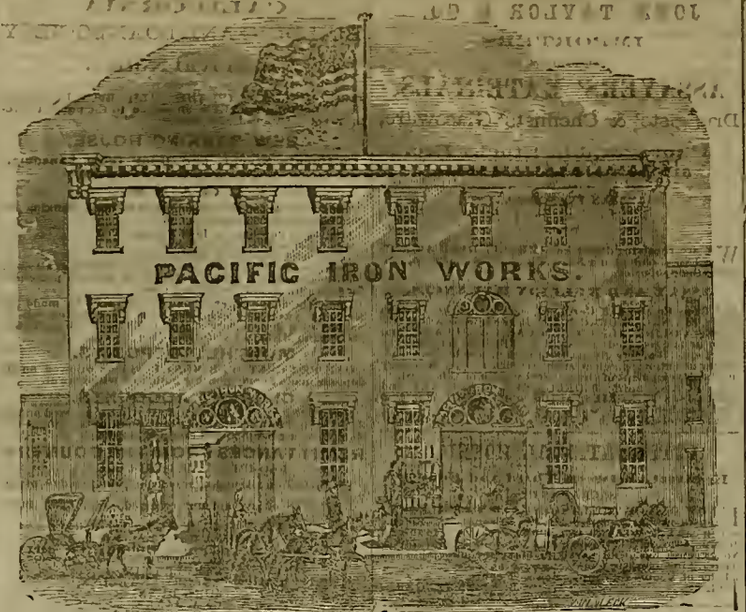
STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,
Bought, sold, or exchanged. Bolt Cutting and Castings at the lowest market rates.
6v11-1y

DEVOE, DINSMORE & CO.



THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY,

REMINGTONS'
ARMY AND NAVY REVOLVER,
THE REMINGTON REVOLVER

Has been approved by the United States Board of Ordnance, and has so satisfactorily met the requirements of the Government, not only in the field, but in the official tests and examinations made by prominent officers of the Ordnance Department, that it stands at once the most popular, serviceable and approved arm of the kind in use. Upwards of 125,000 have been supplied to the Government within the past four years, for the land and naval service, furnishing ample evidence of the estimation in which the arms are held.

Simple and symmetrical in its entire construction, securely strong, of most modern improvement in mechanism and material, its unequaled range and penetration, together with its durability, are points in its favor now well known, and which challenge a comparison with any other pistol of the kind made in this country or in Europe.

The superior strength and capacity of the arm for constant and long use is apparent from the fact that the entire frame is constructed of a single piece of metal, thus preventing the extension of some portions of the frame, from the effect of firing—a serious defect in many pistols—in which the frame is composed of two or more parts.

The frame of the Remington Revolver furnishing a TOP STRAP or support above the cylinder, served to protect the base pin (on which the cylinder revolves) from any undue strain to which it would otherwise be subjected, and which would immediately render the fire of the arm from the cylinder to the barrel imperfect, thus destroying force and accuracy.

Another advantageous feature of the arm is the means afforded for the instantaneous removal of the cylinder from the frame. This not only facilitates the cleaning of the pistol, but by the quick adjustment of the cylinder, one pistol can be made as effectual as two—and considering the difference of weight, it is far preferable—by simply possessing a spare cylinder loaded and capped to instantly replace the exhausted one.

The above is a general summary of the points of peculiar merit in the Remington Revolver which a trial of the arm is only needed to attest. For sale at Manufacturers' rates, by

ALBERT E. CRANE, Manufacturers' Agent,
18v12 **310 Washington Street, up stairs.**

Vulcan Iron Works Company

[ESTABLISHED 1850.]
First, Natoma and Fremont Streets.

IRON FOUNDERS,
Steam Engine and Locomotive BUILDERS,
Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition o new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery, Locomotives, Car Trucks, Car Wheels, Housings and Irons; and Flouring Mills, Quartz Mills, Sugar Mills, Saw Mills,

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR
BEATH'S AMALGAMATOR.
HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER.
BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR.
FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL.
JONYAL'S IMPROVED WATER WHEEL.
LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

M. REYNOLDS,

COPPERSMITH

—AND—

SHEET IRON WORKER,

Market street, near Front, San Francisco,

ALL KINDS OF COOKING UTENSILS tinned and made to order. 16v12-3m

SUBSCRIBERS who do not receive the MINING AND SCIENTIFIC PRESS in due time, are requested to inform the publishers.

H. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!

Corner First and Mission streets,
SAN FRANCISCO.

ESTABLISHED IN 1849.

HAVING INCREASED OUR FACILITIES IN EVERY Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kind, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's improved Tractory Curve Pan, Zenas Wheeler's improved flat bottom pan, Beldith's pan, Vertell's tubs, Prater's concentrators, Wahlee's pans, Boers' pan, Germain Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight, or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.
21v9. **H. J. BOOTH & CO.**

BY MAIL.—The MINING AND SCIENTIFIC PRESS will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

PALMER, KNOX & CO.

Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,
SAN FRANCISCO.

MANUFACTURE ALL KINDS OF
MACHINERY,
STEAM ENGINES AND QUARTZ MILLS.
DUNBAR'S IMPROVED
Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam-tight, without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S
NEW GRINDER AND AMALGAMATOR
HEPBURN & PETERSON'S
AMALGAMATOR AND SEPARATOR,
Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,
WITH PALMER'S PATENT STEAM CHEST,
Superior for working either Gold or Silver Ores.
Genuine White Iron Stamp Shoes and Dies.

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 1v10dy-tf

—10—
FULTON
Foundry and Iron Works.

HINCKLEY & CO.,
MANUFACTURERS OF
STEAM ENGINES,
Quartz, Flour and Saw Mills,
Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-6y

Miners' Foundry

—AND—
MACHINE WORKS,

First St., between Howard and Folsom Streets,
SAN FRANCISCO.

EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,
Machinery, Mining Pumps, Amalgamators,
Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KING

Pioneer Iron Works.

KITTREDGE & LEAVITT,
MANUFACTURERS OF
FIRE-PROOF DOORS AND SHUTTERS

Steel Lined Bank Vaults and Safes,
PRISON CELLS, BALCONIES, AWNINGS,
Grating and Iron Fences, Stairs, Etc.

ALSO, AGENTS FOR
BUSSEY'S NEWLY PATENT COMBINATION
BURGLAR-PROOF LOCK,
☞ No KEY, or visible signs of OPENING. ☜
Corner of Battery and Jackson streets,
San Francisco.

Constantly on hand a large assortment of Second-Hand Fire-Proof Doors and Shutters. 18v12

UNION IRON WORKS,

Sacramento.

WILLIAMS, HEILBRON & CO.,
MANUFACTURERS OF
STEAM ENGINES, BOILERS,
And all kinds of Mining Machinery.

Also, Hay and Wine Presses made and repaired with neatness, durability and dispatch.

Dunbar's Patent, Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

Front Street, between N and O streets,
14v11 SACRAMENTO CITY

JOHN LOCHHEAD'S

STEAM ENGINE WORKS,

Beale Street, near Mission Street,
SAN FRANCISCO.

Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,
Portable Engines of all Sizes; Donkey Pumps, Etc
25v9q JOHN LOCHHEAD, Practical Engineer

Pacific Mail Steamship Co's
THROUGH LINE TO NEW YORK,
Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

On the 10th, 18th and 30th of each month that has 30 days.

On the 10th, 19th and 30th of each month that has 31 days.

When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceding; when the 18th falls on Sunday, they will leave on Monday following.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departures of 18th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

May 19th—GOLDEN CITY.....Capt. Jas. T. Watkins. Connecting with NEW YORK, Capt. Borner.

May 30th—SACRAMENTO.....Capt. J. M. Cavarly, Connecting with ARIZONA, Capt. Maury.

Cabin passengers berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.

OLIVER ELDRIDGE, Agent.

The Excelsior Hat
—OF—
SAN FRANCISCO.

Paris, New York and London Styles
For Spring and Summer, 1866,
Will be Introduced
SATURDAY.....MARCH 3

—AT—

MEUSSDORFFER'S
Hat Manufactories,

Nos. 625 and 627 Commercial street.....Sao Francisco
No. 125 J street.....Sacramento
Corner D and Second streets.....Marysville

OUR STYLE IN MOLESKIN, for the season, is, we feel confident, the SUPERLATIVE OF ELEGANCE AND FINISH; our MERINO FINAUD and ST. CLOUD the most successful result of Parisian taste.

Especial attention also deserve our
CHELSEA,
CHESTER,
CRESCENT,
NEWPORT,
DERBY and
CLARENDON RESORTE

☞ Call and see them. 9v12-3m

By Authority of the State of California,
Having fully Complied with the Law by a Deposit of $525,0 0 Bonds of the State of California and the United States.

BIGELOW & BROTHER,

General Insurance Agents.

Fire, Marine, and Life Insurance.

CAPITAL REPRESENTED $15,000,000.

California Deposit, $525,000.

OFFICES—N. W. corner of Montgomery and Sacramento streets.

COMPANIES REPRESENTED:

HOME INSURANCE CO. OF N. Y., Assets	$3,700,000
HARTFORD FIRE INSURANCE CO., Assets	1,500,000
PHENIX INSURANCE CO., N. Y., Asscts	1,000,00
ARCTIC INSURANCE CO., N. Y., Assets	700 00
WASHINGTON INSURANCE CO., N. Y., Assots	700,000
NEW YORK ACCIDENTAL INS. CO., Assets	260,000
CONNECTICUT MUTUAL LIFE INS. CO., Assets	8,000,000

POLICIES issued on Freights, Cargoas and Treasure from and to all parts of the World.

FIRE INSURANCE POLICIES issued on all kinds of Insurable Property in Country or City.

ACCIDENTAL POLICIES issued on the most favorable terms, insuring the payment of stated sums in the event of death, or a fixed Weekly Compensation for Total Disability for the term of twenty-six weeks for any one accident. These Policies cover all kinds of Accidents, and are issued for single trips or for the year.

Losses Payable in Gold Coin of the United States.

We represent Companies
That Have Stood the Test of Years,
And offer as favorable terms as any on the Pacific Coast.

BIGELOW & BROTHER,
General Agents.
20v11tf

JOHN TAYLOR & CO.
IMPORTERS,
AND DEALERS IN
ASSAYERS' MATERIALS,
Druggists' & Chemists' Glassware,
Photographic Stock, Etc.
512 and 514 Washington Street,
SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco March 6, 1865. 11v10-tf

INTERNATIONAL HOTEL,
K Street, between Third and Fourth,
SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

BRANNAN HOUSE,
(Formerly Vernon,)
J street, between Front and Second streets,
SACRAMENTO.

FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m MRS. J. DUNN, Proprietress.

WHAT CHEER HOUSE,
SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.
1v12-3m A. J. SENATZ, Proprietor.

California Steam Navigation COMPANY.

Steamer CAPITAL.....CAPT. E. A. POOLE.
" CHRYSOPOLIS....CAPT. A. FOSTER.
" YOSEMITE.....
" CORNELIA.....CAPT. W. BROMLEY.
" JULIA.....CAPT. E. CONCKLIN.

One of the above steamers leave BROADWAY WHARF, at 4 o'clock P. M. EVERY DAY (Sundays excepted), for Sacramento and Stockton, connecting with light-draft steamers for Marysville, Colusa, Chico, and Red Bluff.

Steamships AJAX, PACIFIC, ORIZABA, CALIFORNIA, ACTIVE and SENATOR, leave, as advertised, for Honolulu, Portland, Oregon, New Westminster, British Columbia, Victoria, V. I., Santa Barbara, San Pedro, and San Diego.

Office of the Company, northeast corner of Front and Jackson streets.

13v12 B. M. HARTSHORNE, President.

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,
No. 602 Montgomery street, San Francisco.
EXCLUSIVE AGENT
—FOR THE—
AMERICAN
WATCH FACTORY.
A large assortment of these
Superior Watches,
In Gold and Silver Cases,
Constantly on hand, and sold at Factory prices. Also,
ENGLISH AND SWISS WATCHES,
Imported directly from the Manufacturers.
The American Company are now making
VERY FINE WATCHES FOR LADIES.
☞ A large assortment of Gold Chains and Jewelry. 25v10-6m.

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

Postage.—The postage on the MINING AND SCIENTIFIC Press to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents.

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

CALIFORNIA
BUILDING AND LOAN SOCIETY
Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING AND LOAN SOCIETY, announce to the public the removal of their business to their

NEW BANKING HOUSE,
California Street, one Door from Sansome.

LOANS.

The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
Second—The Erection of Houses.
Third—The Erection of Manufactories.
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

MONTHLY DEPOSITS.

ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

CURRENT ACCOUNTS.

HALF PER CENT PER MONTH will be allowed on the daily balances to each of Current Banking Accounts—the same to be ascertained and credited monthly.

REMITTANCES FROM THE COUNTRY
PROMPTLY ACKNOWLEDGED.

INTEREST on all sums commenees from the day of deposit.

DEPOSITS of any amount received, from FIVE DOLLARS upwards.

OFFICE HOURS—9 12 A.M. to 3 1-2 P M. daily.
SATUROAY EVENINGS from 6 1-2 to 9 o'clock.

THOMAS MOONEY, President.
W. O. WEIR.
SAMUEL CRIM.
ROBERT LEWELLYN,
JOHN DUNN,
C. A. JANKE,
A. ROSENFIELD,
J. W. McCORMICK,
16v12-3m L. R. TOWNSEND, Secretary.

The Bank of California.
SAN FRANCISCO, MAY 9, 1866.

NOTICE.—AT A MEETING OF THE STOCKHOLDERS of this Bank, held on the 5th instant, it was resolved to increase the Capital Stock of the Corporation to $5,000,000, Gold, to take effect on the FIRST DAY OF JULY next, and the President and Cashier are authorized to receive subscriptions for $2,000,000 of said Capital Stock. Parties desirous of subscribing will make application at the Bank, either personally or by letter, when further details will be given.

19v12 1m O. O MILLS, President.
W. C. RALSTON, Cashier.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLATure of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, all paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire	$12,973,949
Marine	481,403

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to the extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G W Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm Hooper,	Lloyd Tevis,
Anson G Stiles,	John B. Newton,	T L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
O W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	T. Lawton,
Alphens Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wigbtman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. E. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

The Great Pain Annihilator.

DR. E. R. JOHNSON WILL WARRANT TO CURE ALL cases of Asthma, Fever and Ague, Catarrh, Sore Throat, and Womb Diseases. The Doctor's success is miraculous in cases of RHEUMATISM, NEURALGIA, CONSUMPTION, GOUT, PARALYSIS, INFLAMMATION OF THE EYES, and all other diseases that human skill can reach. Rheumatic Pains removed in five minutes. Some of the afflicted that visit him come from one to six hundred miles, and soon find relief. Persons at a distance can be cured at home by addressing a letter to Dr. Johnson, No. 700 Market Street, San Francisco, stating case, symptoms, length of time the disease has continued, and have medicine promptly forwarded to any part of the country, with full and plain directions. ☞ Consultation by letter or otherwise, FREE. 16v12-1m

It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid.—[Nye County News

VOLUME TWELFTH.—The MINING AND SCIENTIFIC PRESS, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbon" its gait has been quite toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

FLOWERS, when wrought into skillful devices, to represent the excellence of the dead and the hopes of immortality beyond the grave, are the most irresistible and eloquent and pure of all expressions of human love, when strewn upon the unostentatious bier.

PHOTOGRAPHIC albums with musical boxes concealed in the covers, are at present a novelty in England.

THOSE who weep over errors are not formed for crimes.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

New Mining Advertisements.

Continued Mining Advertisements will be found on another page.

Batopilas Mining Company, Batopilas District, State of Chihuahua, Mexico.

NOTICE.—Thers are delinquent upon the following described stock, on accouat of assessment levied on the 4th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
B Mawbec	unissued	32	$8 00
Andrew Wilson	unissued	15	3 75
John Slitz	unissued	19	4 75
Edward McCann	20	21	10 50

And in accordance with law and an order of the Board of Trustees, made on the 4th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at the office of the Company, No. 311 Montgomery street, ap stairs, San Francisco, on the 28th day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. MARTINON, Secretary.
Office, 311 Montgomery street, San Francisco, Cal. my19

Eagle Quartz Mining Company.—Location of Works: Amador County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 15th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 10 Exchange Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 15th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Friday, the 6th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOHN M. BURNETT, Secretary.
Office, No 10 Exchange Building, San Francisco. my19

I. X. L. Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Namas.	No. Certificates.	No. Shares.	Amount.
Wm West	130	7½	$11 75
George Morehouse	143	10	15 00
Osmond Johnson	190	2	3 00
Ole Halvorson	192	5	7 50
A Wagner	207	5	7 50
Chas Saunders	224	5	7 50
H G Baisdell	236	5	7 50
H G Baisdell	237	5	7.50

And in accordance with law and an order of the Board of Trustees, made on the 5th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, No. 338 Montgomery street, on the 7th day of June, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary.
Office, 338 Montgomery street, San Francisco, Cal. my19

Leland Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin to the Secretary, at his office in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.
Office, 302 Montgomery street, San Francisco, Cal my19

Lady of the Lake Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin, to the Secretary, at his office in San Francisco., Cal.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.
Office, 302 Montgomery Street, San Francisco, Cal. my19

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, California

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 21st day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Estate of John J Williams	2	7½	$1 87
James Gallagher	45	5	1 25
James Gallagher	46	5	1 25
Mrs A M Harris	73	5	1 25
Mrs A M Harris	74	5	1 25
Estate of Henry Mercer	123	5	1 25
Geo Lorenz	163	5	1 25
Geo Day	171	5	1 25
A H Powers	174	10	2 50
Charles Lucieue	229	2½	62
John W Armstrong	213	5	1 25
F M Post	219	10	2 50
A M & C T Harris	220	7½	1 87
Wm Gallagher	233	10	2 50
Daniel Davidson	244	5	1 25

And in accordance with law, and an order of the Board of Trustees, made on the 31st day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Secretary, No. 305 Montgomery street, San Francisco, on the 5th day of June, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. S. LUTY, Secretary.

Office, 305 Montgomery street, corner of Pine, San Francisco. my19

Old Colony Quartz Mining Company.—Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of May, 1866, an assessment of three (3) dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, No. 523 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. O. HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco. my19

Ocean Providence Gold and Silver Mining Company.

Notice.—The annual meeting of the Stockholders of the above Company, for the purpose of electing Trustees, and transacting other necessary business, will be held at the Office of the Company, No. 10 Government House, San Francisco, on the 20th day of JUNE, 1866, at 2 o'clock P. M. of that day.

F. T. FOLSOM, President.

J. M. BUFFINGTON, Secretary.

San Francisco, May 19th, 1866. my19

Yankee Blade Mining Company, Reese River Mining District, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 329 Montgomery street, San Francisco, Cal. Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the ninth (9) day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. T. ATWOOD, Secretary.

Office, No. 329 Montgomery street, San Francisco. my19

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Capitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 30th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, or to E. H. SWARTHOUT, Treasurer, San Jose, California.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

D. R. BECKFORD, Secretary.

Office, 731 Clay street, San Francisco, Cal. my5

Dos Padre Gold and Silver Mining Company, Atamos, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees at said Company, held on the 28th day of April, 1866, an assessment of three dollars per share was levied upon the capital stock of said Company, payable on the 29th day of April, 1866, in United States gold coin, to the Secretary, E. C. McCOMB, No. 1 Government House, corner Sansome and Washington streets, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 5th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Saturday, the 23d day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

E. C. McCOMB, Secretary.

Office, No. 1 Government House, corner Sansome and Washington streets, San Francisco, Cal. my5

Economy in Advertising.—The MINING AND SCIENTIFIC PRESS is the best and most ECONOMICAL mining advertising medium in this city. Our terms are less than ONE HALF the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The PRESS contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Evoca Consolidated Copper Mining Company. Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May, 1866, an assessment of twenty-five cents per share was levied upon the assessable capital stock of said company, payable May 12th, 1866, in United States gold and silver coin, to the Secretary, C. E. ABBOT, or to A. E. THAYER, at the office of the Company, at No. 532 Merchant street, room No. 3, in the city and county of San Francisco, State of California.

Any stock upon which said assessment shall remain unpaid on the 6th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. E. ABBOT, Secretary.

Office, No. 532 Merchant street, room No. 3, San Francisco, California. my5

Green Gold and Silver Mining Company. Location of Works and Mine: Gold Hill District, Storey County, Nevada.

Notice.—The Annual Meeting of the Stockholders of the above Company, for the election of Trustees, etc., will be held on WEDNESDAY, the 6th day of June, 1866, at 12 o'clock M., at the office of the Company, No. 606 Montgomery street, San Francisco. Proxies to be filed with the Secretary. JOHN HENDERSON, President.

R. H. SMITH, Secretary. my5

Great Basin Mining Company.—Location of Works: Humboldt County, Nevada. Office, southeast corner of Pine and Montgomery streets, San Francisco, California.

Notice is hereby given, that at a meeting of the Trustees of said Company, held May 2d, 1866, an assessment of nine cents was levied upon each and every share of the capital stock of the said company, payable immediately, in United States gold coin, to the Secretary, at his office, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale, at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. T. KING, Secretary *pro tem.*,

Office, S. E. corner Pine and Montgomery streets, San Francisco. my5-5w

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County Cal.—Assessment No. 11.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the Office of the Company only.

Any stock upon which said assessment shall remain unpaid on the 12th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. O. ROOT, Secretary.

Office, 333 Montgomery street, San Francisco. ap14

POSTPONEMENT.—The advertisement of stock delinquent on the above assessment, is hereby postponed until Saturday, June 9th, 1866, and the sale thereof until Tuesday, June 26th, 1866. By order of the Board of Trustees.

ap28 W. D. ROOT, Secretary.

Gold Hill Tunneling Gold and Silver Mining Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May, 1866, an assessment (No. 7) of one dollar per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, R. WEGENER, 415 Montgomery street, San Francisco, California, or to the Superintendent, Mr. F. CHAPPELLET, Gold Hill, Nevada.

Any stock upon which said assessment shall remain unpaid on the 15th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 10th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal.

A discount of three (3) per cent. will be allowed on all payments made on the above assessment on or before Monday, the 21st day of May, 1866. By order of the Board of Trustees.

my12 R. WEGENER, Secretary.

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary.

Any stock upon which said assessment shall remain unpaid on the 18th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 4th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. B. WINEGAR, Secretary.

Office, 308 Front street, San Francisco. ap21

POSTPONEMENT.—The day for deeming the stock delinquent on the above assessment is hereby postponed until the 21st day of May, 1866, and the sale thereof until Monday, the 11th day of June, 1866. By order of the Board of Trustees.

my19 A. B. WINEGAR, Secretary.

ITS correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco, [Nye County News.

Kentucky Copper Mining Company, Mine Felix District, Calaveras County, California.

Notice.—There are delinquent upon the following described stock, on account of assessment levied on the 21st day of April, 1866 the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Gage, J C	233	10	$10 00
Hellman, Victor	219	22	22 00
Koels, A S	22	50	50 00
Kunast, A	212	10	10 00
Kunast, A	220	5	5 00
Kunast, A	221	10	10 00
Kunast, A	272	10	10 00
Redman, John	46	22	22 00
Schmidt, L C	24	10	10 00
Schmidt, L C	134	10	10 00
Schmidt, L C	156	5	5 00
Schmidt, P R	23	20	20 00
Schmidt, P R	104	20	20 00
Schmidt, P R	122	10	10 00
Schmidt, P B	155	10	10 00
Schmidt, P R	274	100	100 00
Schmidt, P R	276	25	25 00
Smith, Chas	60	50	50 00
Sa hike, J A	270	25	25 00
Wallace, John	241	20	20 00

And in accordance with law and an order of the Board of Trustees, made on the 21 day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Cohn & Sinton, No. 400 Montgomery street, San Francisco, Cal., on the 30th day of May, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. A. BAUER, Secretary.

Office, 544 Washington Street, San Francisco. my12

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary, C. HEYWOOD, 311 Market street, San Francisco, or to G. W. RUSSELL, Crescent City.

Any stock upon which said assessment shall remain unpaid on the 9th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 28th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. HEYWOOD, Secretary.

Office, 311 Market street, San Francisco, Cal. my5

Mina Rica de las Flores Mining and Mill Company, Camp Flores, near West Point, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the eighth day of May, 1866, an assessment (No. 12) of one dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, S. DICKINSON, at the office of the Company, No. 423 Washington street, Room No. 15, up stairs, San Francisco, between the hours of 11 A. M. and 1 P. M.

Any stock upon which said assessment shall remain unpaid on the nineteenth day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the sixteenth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. DICKINSON Secretary.

Office, 423 Washington street, San Francisco, Cal.

San Francisco, May 9, 1866. my12-6w

Nuestra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, (in the Drug store, near Oupont,) or to the Treasurer, A. HIMMELMANN, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 2d day of June, 1866, and unless payment shall be made before, will be sold on the 25th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug store, near Oupont street,) San Francisco, Cal. ap28

North Star Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

NOTICE.—There are delinquent, upon the following described stock, on account of assessment levied on the 9th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
John W Harker	350	6	$150 00
John W Harker	455	6½	162 50
G F Sharp	447	2	50 00
Mary F Breizo	243	4½	112 50
R B Goddard	251	9¾	231 25
J P Sharpstein	441	15	375 00

And in accordance with law, and en order of the Board of Trustees, made on the 9th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on Wednesday, the 6th day of June, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

GOTTLIEB BEER, Secretary.

Office, 226 Front street, San Francisco. my12

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for BOOK AND PAMPHLET PRINTING entrusted to the Mining and Scientific Press Job Office.

Rippon Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 8th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, 333 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JAMES C. DAVLEY, Secretary.

Office, 333 Montgomery street, San Francisco, Cal. my12

Salamander Gold and Silver Mining Company, Salamander Creek, Calaveras County, Cal.

NOTICE.—The regular annual meeting of stockholders of the said Company, to elect the officers for the ensuing year, will be held on MONDAY, the 21st day of May, 1866, at 8 o'clock, P. M., at the office of the Company, No. 210 Post street (in the Drug store, near Dupont street). By order of the Board of Trustees.

E. J. PFEIFFER, Secretary.

San Francisco, May 2d, 1866. my5 2t

Simpson & Bosselle Mining Company.—Mines located in Carson Valley.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 20th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable on the 30th day of April, 1866, in United States gold and silver coin, to the Secretary, or to Dr. J. W. WATERS, Markleeville, Cal.

Any stock upon which said assessment shall remain unpaid on the 25th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 14th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. BIBBINS, Secretary.

Office, 305 Montgomery street, San Francisco, Cal. ap28

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal ap28

Sierra Valley Gold and Silver Mining Company, Plumas County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 26th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately, in gold coin of the United States of America, to the Secretary, at the office of the company, No. 607 Washington street, in the city and county of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 31st day of May, 1866, will be duly advertised.

Any stock upon which said assessment shall remain unpaid on the 31st day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 18th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. ap28

United States Mining Company.—Location of Virginia District, Storey County, Nevada

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of April, 1866, an assessment of one dollar per share was levied on each and every share of the capital stock of said company, payable immediately, in gold coin of the United States, to the Secretary, at his office, or to Oa. T. H. PINKERTON, South B street, Virginia, Nevada.

Any stock upon which said assessment shall remain unpaid on Saturday, the 26th day of May, 1866, will be advertised as delinquent, and unless paid, will be sold on Wednesday, the 13th day of June, 1866, to pay said delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House, corner Sansome and Washington streets, San Francisco. ad21

Whitman Gold and Silver Mining Company. Location of Works: Indian Springs District, Lyon County, Nevada.

Notice is hereby given that the Annual Meeting of the Shareholders of the Whitman Gold and Silver Mining Company, for the election of Trustees and the transaction of such other business as may be presented, will be held at the office of the President of the Company, CHARLES MAYNE, Esq., No. 535 Clay street, San Francisco, on TUESDAY, the 5th day of June, 1866, at the hour of 8 P. M.

Per order

THOS. W. COLBURN,

Secretary Whitman G. & S. M. Co.

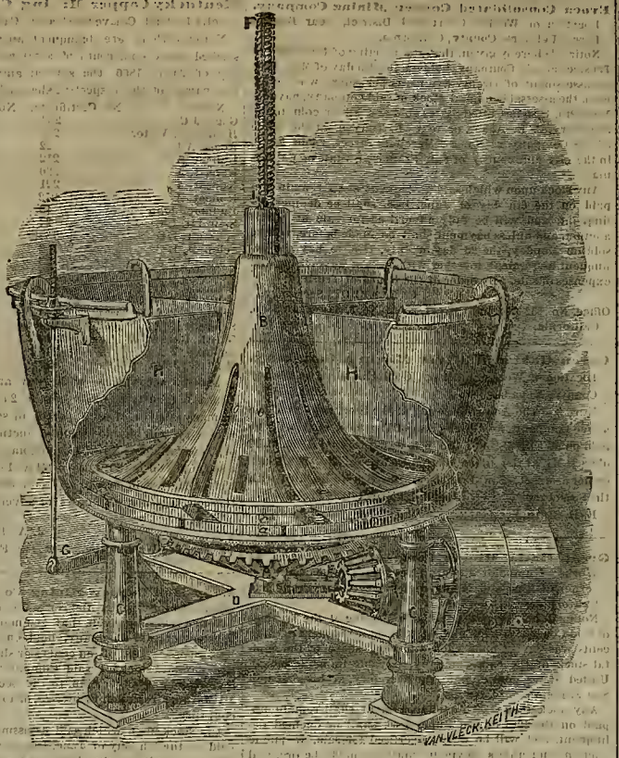
San Francisco, Cal., May 12th, 1866. my12-4t

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

MONEY BY MAIL.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid

THE EXCELSIOR GRINDER AND AMALGAMATOR.

In the engraving herewith preeented, A represents the Rim of the Pan; B, Muller; C, Lege; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and o, Openings.



The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

"Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

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Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

Machinery.

SAVE YOUR MONEY AND BUY,

For $100!

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Premium Cnocentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

THE ABOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 135 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent. more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 148 Washington street, below Davis, where ALBERT JACOBS will all their orders promptly.

ANDREW HUNTER,
17y12-tf Inventor.

TO PLACER MINERS AND OTHERS.

BREARS'

Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 320 Pine street.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 245 First street, San Francisco.

LIST OF PRICES:

LITTLE GIANT.		BENT TUBE.	
Brass	$65	Iron, 4 in diameter	$100
Iron	60	" 3 in. diameter	75
		" 2 in. diameter	50
		" 1½ in. diameter	35
		Brass, 1 in. diameter	25

13-v12.

Pacific Forge Company.

FORGING AND IRON WORK.

THE PACIFIC FORGE COMPANY HAVE JUST ERECTed, in this city, on Fourteenth street, near the machine shop of the San Jose Railroad, a large establishment for the purpose of forging and working in wrought iron. Our hammer is the largest upon this coast, and we are prepared to manufacture, at short notice, all kinds of heavy forgings; car axles, shafts, steamboat cranks, piston-rods, wagon axles, and other similar work. This is the first general shop of the kind erected in this State, and we solicit the patronage of the public. All orders executed at reasonable rates, and with promptness and satisfaction. 19v12-3m

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

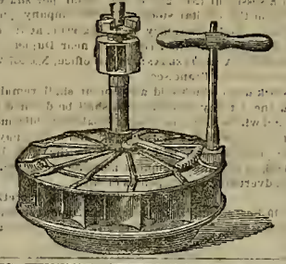
San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 DEVOE, DINSMORE & CO.

LEFFEL'S American Double Turbine WATER WHEEL.



THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction whenever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall. Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

KNAPP & GRANT,
—ALSO—
Leffel's Lever Jacks,
San Francisco.

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner, also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by KNAPP & GRANT,
12v12-3m San Francisco.

Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK. EMbracing all Modern Improvements, suitable for Mining, Milling, or other purposes. Will be sold at Manufacturers' rates and charges.

Apply to A. E. CRANE,
15y12-3m 310 Washington Street, up stairs.

FOR SALE A STEAM ENGINE!

18-INCH CYLINDER, 8 FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

Cotton-Filled Gum Belting,

3, 4, and 5-Ply,

FROM 4 TO 22-INCH,

IN LIBERAL SUPPLY.

FOR SALE BY

GILLIG, MOTT & CO.,

Corner C and Taylor streets,

VIRGINIA, NEVADA,

—AND—

Nos. 148 AND 150 J STREET,

19v12-tf SACRAMENTO, CALIFORNIA.

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self-acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulers and terms, apply to

HUGO HOCHHOLZER,
Virginia City, Nevada,
15v11tf Through Wells, Fargo & Co's Express.

BRUCKNER'S Mechanical Roasting Furnace

AWARDED A

PREMIUM SILVER MEDAL

—BY THE—

The Mechanics' Institute.

THESE FURNACES ARE NOW MANUFACTURED after an improved mode of construction, which

GREATLY SIMPLIFIES THEIR OPERATION,

and affords a much larger oxydizing surface to the action of heat and atmosphere.

The weight of a Furnace nine feet long by four feet in diameter does not exceed one ton.

THE IMPROVED FURNACE

will soon be more fully described and illustrated in the columns of the MINING AND SCIENTIFIC PRESS.

Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
19v12 416 Market street, San Francisco.

To Ditchmen, Millmen and Others Requiring

IRON PIPE.

M. R. ROSE, CORNER OF 9TH AND K STREETS, Sacramento City, has facilities unsurpassed on this coast for the manufacture of IRON PIPE of every description. He also has on hand a deep well FORCE PUMP, of his own invention and manufacture, well adapted for oil wells. His tools being portable, pipe can be manufactured on the ground. 19v12-

[Written for the Mining and Scientific Press.]

Mining as it is in Reese River.

EDITORS MINING AND SCIENTIFIC PRESS:—Mining, when properly defined, is a compound of sciences. To be a thorough miner one must practically understand every branch—the proper way to open a mine and secure it against damage through weight or pressure of earth; economical and expeditious working; the quality and quantities of ores; the value of material; the application of material; the worth of machinery and steam-power; the application of steam, and the observance of all changes in formation, as often found in the working of a mine. This much, at least, should be known practically by all those having in their charge a mine; but how seldom it is that such positions are filled by men having such knowledge.

Thus it is, that those having a hope of realizing profits from our mines must be patient, as at present there is little being done to warrant further investment. Through the mismanagement of mining agents the present and future of our mineral region is anything but flattering to those desirous of interesting themselves permanently, or to the transient speculator. A few days' inspection satisfies them thoroughly that the present plan of working is erroneous; that to invest is to disburse money with but slight prospect of a reasonable return. Neither do they see the busy business life there should be in a country so rich in minerals as every one believes this to be. Every facility for making investments profitable is here; but still intelligent capitalists are wary, knowing that by proper management alone the desired end can be attained. They cannot refrain from asking why it is that so many large and truly magnificent mills are lying idle, when, by the development of the mines, they would be running. They are satisfied that had one-third of the money that has been expended in mill building been judiciously applied in the development of mines, under the direction of men practically conversant with mining, every business would be better. They see, too, that the dearly-bought experience of capitalists has not cured them of folly; as mills are still being built and contracted for on mines as yet not prospected twenty feet below the surface. If it were otherwise, those ready and willing to invest would have some foundation on which to base their investments.

Many invest in our mines, never having been in the country, and are so induced to do by flattering reports gotten up for the occasion. Through these reports moneyed men become to all appearance interested, and through them a company is formed—large quantities of stock are thrown on the market, and is picked up at different rates by mechanics, draymen, servants, and others totally unacquainted with the "art of mining brokering." These reports are written up by the hundred, and to suit the circumstances of the buyer, varying one from the other only in respect to penmanship and signatures. Scores of them are written without the reporter having seen the mine in question—(in truth it would make little if any difference with most of them if they did examine the mine, as I candidly believe there are not half a dozen of the whole army of them that ever excavated a wheel-barrow load of ore).

Mines are sold because of these representations, and on the authority and over the signature of men who, from the position they occupy, or assume to occupy, hold themselves before the world as being experienced in mining—as being capable of judging of the position and merits of a mine, and, in nine cases out of ten, the report believed, through the simple signature—no effort being made on the part of the purchasers to get a true statement of the facts under which the mine exists and has been worked, or of refuting, if possible, the statement gotten together for the mere purpose of consummating a sale.

We are cautioned not to speak in disparagement of our mines, because of its tendency to withhold capital from our mines. We do not. There is no particular secret that I am aware of in the manner in which the "fixing up" of claims is done. First, we want much money put in the country (in mills, if they prefer it); secondly, we want and expect them to spend as much more in the country to secure the first investment, giving them a large field for their operations.

The statement that our mines are not de-

veloped is proven from the fact that no mill in the Reese River section is crushing ore from the mine on which it was founded. Those disbelieving this assertion need only look for themselves, or make inquiry of any man, woman, or child in the section. All energies and means placed at the disposal of the superintendents have been consumed in the erection of mills—the developement of mines being left to posterity.

I ask the owners and possessors of our mineral lands whether such proceedings tend to encourage investment—whether it lends anything to the development and prosperous future of our country, and whether we are by it benefited in any way permanently. PROGRESS.

Austin, April 28th, 1866.

Perilous Situation.

Once only Mr. Wise, the aeronaut, found himself in a difficulty which alarmed him. On ascending in May, 1839, just as he was about to start, a gentleman from the South' was introduced to him, and so held him in conversation, that when he severed the restraining cord it occurred to him that the valve-rope had not been secured! The mistake could not be remedied. For a moment he began to despond and would have given all that he possessed in the world to be down on earth again for one minute. Soon finding that a heavy heart was not the thing for ascending in a balloon, he rallied his spirits; 'took off his hat and ewung it around; which was vociferously responded to from below.' The crowd, however, little knew about the valve-rope, whatever the Southern gentleman may have done. Mr. Wise let down a parachute containing an animal; saw it picked up, and with more sentiment than could have been expected, envied that cat or dog and wished he was by its side on *terra firma*. For the fact that he was driving rapidly toward the Atlantic Ocean, without even the security of being able to burst his balloon; going at the rate of fifty miles an hour; and his machine in such unfortunately good repair as not to afford the hope that it would explode, collapse, or meet with any favorable accident. Under these disheartening circumstances, he found that he had already used up one half of Jersey, and that Princeton was not far ahead. Just at this time he entered into a thunderstorm; the water poured down from the balloon with a noise like a mill-dam! The lightning shot in zigzag flashes through the rolling clouds; and the thunder rattled like the discharge of small arms.

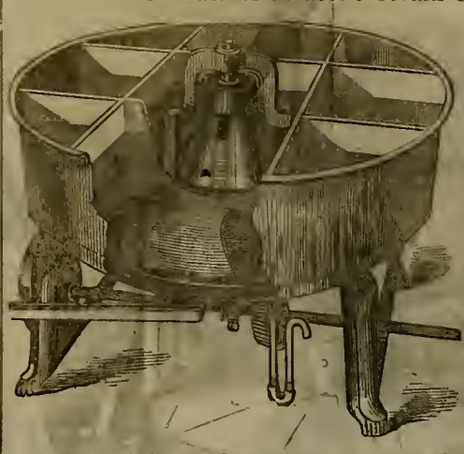
It was a magnificent sight; 'but in recurring to his critical situation, its charms passed from his mind.' When it became apparent that another hour would carry him to the Atlantic, he admits that the moment was embarassing; but considering that 'what must be must,' his thoughts turned in a very practical way toward his provisions for a voyage to Europe, and those consisted of 'half a pound of water-crackers, half a pound of cheese, and a bottle of porter.' He estimated, however, that this stock would be sufficient to take him across at the rate at which he was traveling—fifty miles an hour; but he could not hope that his gas would hold out three days, because the neck of the balloon was left open. Considering every alternative for securing personal safety, he thought of jumping overboard whilst first leaving land and plunging into the ocean; but on reflection he gave up this idea. Then he saw the great Atlantic swelling proudly to the arched roof of heaven. There was no time to be lost. He had endeavored to split his flag-staff, and to fasten a penknife so as to cut the silk; he tried to burst the balloon by jerking the car violently; but this plan failing, he determined to try the effect of an extreme ascent; threw his ballast overboard, and shot into the air till the distended sphere discharged the gas copiously at the neck. He continued to jerk the ear, and at last, oh, joy! the valve-rope rolled out of the neck sufficiently for him to reach it. Mr. Wise's descent into a Jersey farmer's peach-orchard is graphic and lively. We conclude, as he writes the account himself, that he was not killed—but he does not state the fact.

THE WONDERS OF CHEMISTRY.—Aquafortis and the air we breathe are made of the same materials. Linen and sugar and spirits of wine are so much alike in their chemical composition that an old shirt can be converted into its weight in sugar, and the sugar into spirits of wine. Wine is made of two substances, one of which is the cause of almost all combination of burning, and the other will burn with more rapidity than anything in nature. The famous Peravian bark, so much used to strengthen the stomach and the poisonous principle of opium, are found to be of the same materials.

GAS FROM PEAT.—The Lansinburg gas works, near Troy, N. Y., are now using peat instead of coal for the manufacture of their gas. The illuminating qualities of this peat gas is said to be superior to that derived from the best of coal.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of EIGHT YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. Much less Cost.

2d. They do not "flour" the mercury, and collect any that may have been "sick-ened" in the battery or grinders.

3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of ISRAEL W. KNOX, or W. A. PALMER, Inventors,

14v13-p12n At the Golden State Iron Works, No. 19 First street, San Francisco.

HEUSTON, HASTINGS & CO.,

—THE—

FASHIONABLE CLOTHIERS

OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLES

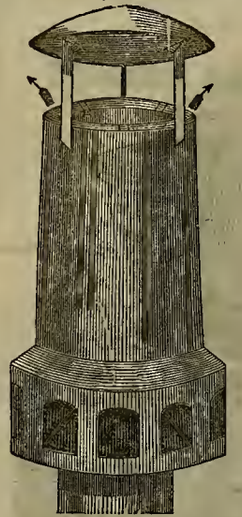
—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12-3m ☞ At Reduced Prices. ☜

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE



FOR STATES, TOWNS AND COUNTIES.

For the Best Chimney Top

Ever invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel.

Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee,

E. A. HENRIKSEN,

Or J. E. JOERGENSEN,

12v12-3m No. 328 Kearny street, San Francisco.

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found, that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes; and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.

16v12-3m

BAUX & GUIOD'S

Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; its small cost; its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

Prater's Concentrator.

NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Dinsmore's Machine and Iron Works,

SAN FRANCISCO.

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

Address: MOROAN HUNOERFORD,

10-v12 San Francisco, Cal.

IRON!

Glasgow Iron and Metal

IMPORTING COMPANY,

Nos. 25 and 27 Fremont street, San Francisco,

Keep constantly on hand a large assortment of

Bar Iron,

Boiler Tubes,

Anvils,

Cast Steel, Etc.,

Which they offer to the trade on liberal terms. 18v12-3m

NEW MINING PUMP.

Excelsior Double-Acting Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind-mill, horse, or steam power.

No. 1—Cylinder 2½ in., stroke 6 in.
No 2—Cylinder 3 in., stroke 7 in.
No 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No 5—Cylinder 6 in., stroke 18 in.
The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,

12v12-3m 120 Front street.

VARNEY'S PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been or will be, spared in have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setters made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setters for themselves, at the PACIFIC FOUNDRY,

1v1 San Francisco.

BLAKE'S QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA, WASHOE, ENGLAND, FRANCE, AND THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.

4v10

FAIRBANK'S

HAY, COAL, CATTLE, MINERS', AND GROCERS' Scales.

We would call the attention of Miners to our large scales for WEIGHING LOADED WAGONS, of from 10,000 to 20,000 lbs capacity.

Manufacturers' Branch House,

19v12-3m FAIRBANKS & HUTCHINSON, 334 Montgomery street.

SPLENDID HOMESTEADS! IN THE COUNTRY.

Twenty-Two Acre Blocks

Adjoining the beautiful Town of

San Leandro, Harlan's Addition,

BUT ONE HOUR'S RIDE FROM SAN FRANCISCO.

Property but a few rods from the Railroad Depot. Good schools, good water, splendid view, free from wind and dust, and the best of soil.

☞ Title—U. S. Patent. ☜

A rare chance to buy a beautiful Homestead for your wife and little ones, at a low figure.

—ALSO—

Improved Homesteads and Farms of 20, 50 or 100 Acres,

In Alameda county. The most desirable locations in the State. Apply to or address

G. E. SMITH,

Notary Public and Searcher of Records.

Office, "Beaty House," (directly opposite the Court House,) San Leandro. 19v12-3m

WASTE IN GOLD MINING.—There appears to be as much waste in washing quartz in Australia as in California. A correspondent of the London *Mining Journal* states that while on a recent visit to Clunes, Australia, he took samples of the refuse sulphurets of gold washings, belonging to three companies, and obtained from them gold at the rate of 28 oz 5 dwt.; 29 oz. 9 dwt.; and 30 oz per ton.

THE SCHOOL OF MINES, connected with Columbia College, New York city, is said to already number over eighty students.

THE proud have no friends—not in prosperity, for then they know nobody; nor in adversity, for then nobody knows them.

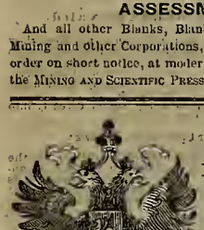
MUSIC PRINTING,
—AT THE—
MINING & SCIENTIFIC PRESS
Book and Job Printing Office.

We have a large fount of Music Type (the only one on the Pacific Coast), and are prepared to print Sheet Music or Music Books on favorable terms. DEWEY & CO.,
Corner Clay and Sansome Streets.

NAPA CITY, May 9th—Messrs. DEWEY & Co., Patent Agents, San Francisco: Yours of May 7th is at hand. I am pleased to hear of the receipt of our caveat papers at the U. S. Patent Office, Washington, D. C. You have my fullest thanks for your energetic movements concerning the same. Respectfully, yours. W. W. LEVERING.

STOCK CERTIFICATES,
STOCK TRANSFER JOURNALS,
STOCK LEDGERS,
ASSESSMENT RECEIPTS,

And all other Blanks, Blank Books, etc., required by Mining and other Corporations, kept on hand or printed to order on short notice, at moderate prices, at the office of the MINING AND SCIENTIFIC PRESS.



SMOKE THE
PATENT
RUSSIAN
CIGARETTES.
manufactured by
GIBB & STAHL
120 Kearny Street,
San Francisco
16v12-3m ☞For sale in all the Cigar Stores.☜

PREMIUMS.

1st Premium, at Sacramento Fair....1862
1st Premium, at S. F. Bay District....1862
1st Premium at Sacramento.....1863
1st Premium, at San Francisco.....1864
1st Premium, for Cordials.....1864
1st Premium, for Hygienic Bitters....1864
Awarded to
V. SQUARZA.

TRY IT 50 PER-CENT SAVED BY USING
STANDARD SOAP COMPANY'S
WASHING POWDER,

THIS POWDER IS SUPERIOR TO ALL OTHER PREparations for washing and cleansing. It is made of pure material, and contains nothing that will injure the finest fabric. Equally as good for using in hard as soft water. One pound will make three gallons of beautiful soft soap. Put up in wrappers of 1-lb each, and in wooden boxes of 10 lbs bulk. Ask your grocer for a package, and test its virtue. Manufactured at **207 Commercial street,** San Francisco. 15v12q

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WAREHOUSE.

GEORGE B. HITCHCOCK & CO.
Blank Book Manufacturers,
Counting House, Insurance & Bank Stationers,
HAVE THE LARGEST AND BEST SELECTED STOCK
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FINE STATIONERY,
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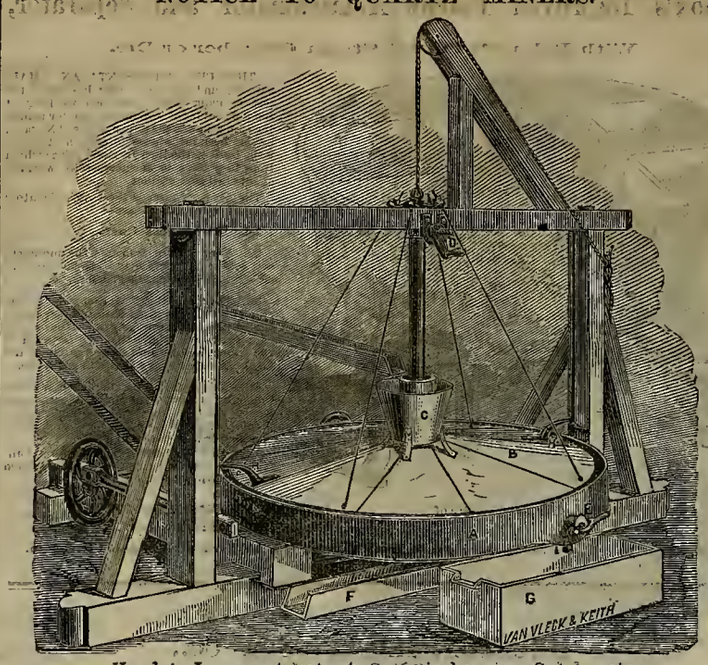
☞ TRADE SUPPLIED ON LIBERAL TERMS. ☜
413 and 415 Sansome street,
15v12 San Francisco.

Blanks, Blank Mining Books,
Constitution and By-Laws
—OF—
Mining and Prospecting Companies

Elegantly printed, with care and dispatch, at the office of the **Mining and Scientific Press.**
☞ Orders from the interior faithfully attended to.

NOTICE TO QUARTZ MINERS.



Hendy's Improved Patent Self-Discharging Sulphurets
PRATER CONCENTRATOR
Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " "
U. S. REESE RIVER MILL, Austin, "
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
CONEY MILL, Jackson, Amador County.
Messrs. TIEBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.
CARROL & ASPINWALL MILL, Reese River, Nevada.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz:

One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
Six Concentrators for the Benton Mill, Bear Valley, Mariposa Co; ordered by Messrs Hodge & Bro, San Francisco.

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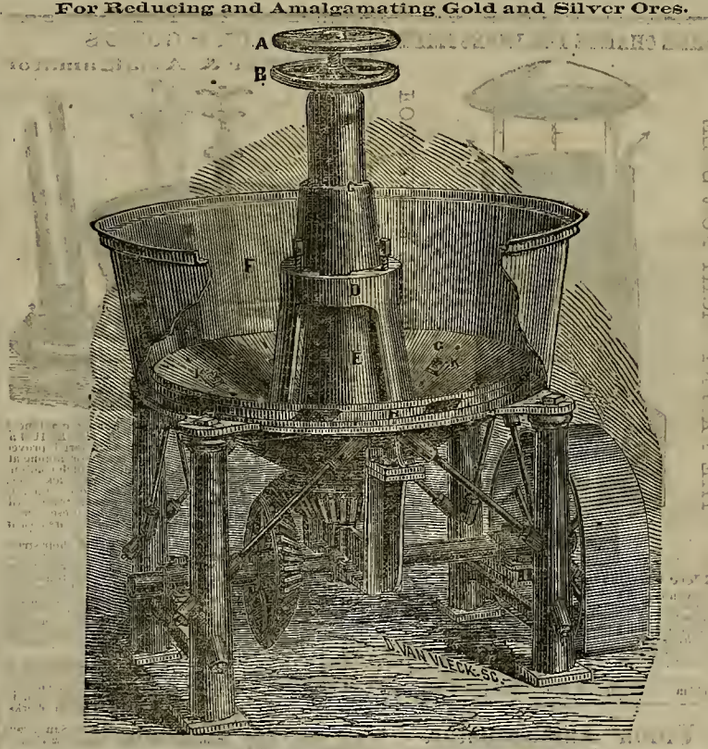

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OPHIR	Washoe City, "	HUDGIN & FORMAN	Silver City, "
EDWARD McLEAN	Silver City, "	YELLOW JACKET	Empire City, "
SANTIAGO	Zephyr Flat, "	BELDIN & GREGORY	Esmeralda, "
RAPHAEL & HUSTED	Gold Hill, "	HECKENHORN	Calaveras Co., Cal.
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TO INVENTORS

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Take occasion to call your attention to the following rules, regulations and suggestions relative to the obtaining of LETTERS PATENT of the United States:

Self-Evident Facts.

Having had large experience, and gratifying success with the great variety of cases emanating on this coast, we feel confident of our abilities to assist inventors in patenting their inventions, saving them from vexatious delays, and from receiving worthless papers hy reason of imperfect proparation of their claims hefore being sent to the Patent Office.

The hranch of Patent Law is of itself a SPECIALITY of legal jurisprudence; or, as Mr Phillips, an eminent Patent lawyer, justly remarked: "The metaphysics of the law."

In enrly days hut little prepnration was needed, or hut ordinary skill required to ohtain a patent; hut now, hy reason of the multiplicity of inventions, and the numerous acts of Congress, found necessary to protect the inventor whilc the patent lasts, and to do justice to the people after it expires, the utmost eare and skill are requisite in managing cases and obtaining a patent that will he of real value to the Patentee, nnd stand the test of passing through the lcgal ordeal of an infringement suit.

The general practice of the Patent office regarding the examination or issue of Letters Patent for inventions has not heen materially changed for many years, yet there have been amendments added to the laws of 1861, 1863 and 1866, and which it is necessary for all parties managing an application to be conversant with. Old inventors invariably advise the employment of none hut agents of *responsibility* and *experience*. As agents with such qualifications, we solicit your patronage.

Confidential Advice.

Those who have made inventions and desire to consult with us respecting the same, are cordially invited to do so. We shall bo happy to seo them in person at our office, or to advise them hy mail, or through the MINING AND SCIENTIFIC PRESS. In all cases they may expect from us an honest opinion. For these consultations, opinion and advice we make no charge. A pen-and-ink sketch and description of the invention should he sent together with a stamp for return postage. Write plain, do not use pencil or pale ink; he brief.

Remember all husiness committed to our care, and all consultations, are kept hy us secret and strictly confidential. Our permancnt business interests demand, as it were, a sacred complinnce with our ohligations as solicitors, and in reference to our strict fidelity in this respect we refer to one and all of the hundreds of inventors and patentees on this coast who have patronized us.

Letters Patent.

A patent is an open letter, embodying all the language of an inventor or his agent, contained in the specification, without alteration, and is granted to citizens of the United States, or those who have declared their intention of hccoming such, and is signed by the Secretary of the Interior and the Commissioner of Patents, with the seal of the Patent Office affixed. Its jurisdiction is for the whole United States, for the term of seventeen years.

A patent right is personal property, and is assignahle, but cannot he seized and sold on execution.

What Claims can be Patented?

A knowledge of Ancient and Modern Mechanics and familiarity with American and Foreign patent issues and rejections, enables us to determine in a measure in nll cases what can he patented, and how much can he elaimed as new and novel, and he covered by Letters Patent. This is one of the most difficnlt questions encountered hy both old and new inventors—one in which an experienced counsel is of great service—and yet it can never be positively determined except hy presenting a formal application for a patent to the Government, embracing a petition, specification, model, duplicate drawings and payment of the first government fees.

Steps Necessary to Procure a Patent.

The FIRST thing required is a model, if your invention can be represented hy one. It is not only immediately necessary in preparing the papers, hut the law demands that the inventor shall, in all cases, furnish a model, which must not exceed twelve inches in any of its dimcnsions. A less size model will answer when more convenient. It should he neatly made, and of hard wood or metal, or both, varnished or painted; the namo of the inventor should he engraved or painted on it in a permanent manner.

When the invention consists of an improvement on some known machine, a full working model of the whole will not be necessary. It should he sufficiently perfect, however, to show, with clearness, the nature and operation of the invention.

As soon as the model is ready, it should be carefully hoxed and shipped hy express, or otherwise, to our address, namely: DEWEY & CO., *Mining and Scientific Press, San Francisco.* Prepay expenses and send express receipt to us by mail.

A full description must also he sent with the model, embodying all the ideas of the inventor respecting the improvement.

Simultaneously with the model, tho inventor should send us the first installment of the Government fee, fifteen dollars. The money may he forwarded either by express with the model, or by mail. The safest way to remit is by draft on San Francisco, payahle to our order. Always send a letter with the model, and also the remittance, stating the name and address of the sender. On the receipt of the model and Government first feo of $15 in currency, the case is duly registered on our hooks, and the application proceeded with as fnst as possihle. When the documents are ready we send them to the inventor hy mail, for his examination, signature and affidavit, with a letter of instruction, etc. Our fee for preparing the case is then due and will be called for. The case will then be presented to the Patent Office, and as soon as the patent is ordered to he issued the Government last fee of $20 in currency will he required. The law states that every patent shall be dated as of a day not later than six months after the time at which it was passed and allowed, and notice thereof sent to the applicant or his agent. And if the final fee for such patent be not paid within the said six months, the patent shall bo withheld, and the invention therein described shall become puhlic property as against the applicant therefor.

Inventors who do husiness with us will he notified of the state of their application in tho Patent Office, when it is possihle for us to do so. We do not require the personal attendance of the inventor, unless it is one of great complication, as the business can be well done by eorrespondenco.

When the invention consists of a new article of manufacture, a medicine, or a new composition, samples of the separato ingredients, sufficient to make the experiment, and also of the manufactured article itself must he furnished, with full description of the entire preparation.

The average time required to procure a patent, when the case is conducted at our agency, is three months. We frequently get them through in less time; but in other cases, owing to delay on the part of Government officials, the period is sometimes extended to four or five months, and even more. We make a special point to advance our cases as rapidly as possihle.

Saving of Time.

In urgent cases for an immediate patent, persons can deposit the amount of the last fees with us, in San Francisco, and have our Washington agent procure the *issue* of the papers as soon as granted, saving the two or three months time which would otherwise be required for the inventor to receive notice and then forward the money. Money advances for this purpose will be returned, should the application he rejected. By adopting this course, we are enabled, with our other advantages, to secure the *receipt* of patent papers to inventors on this Coast, at least four or five months sooner than can he done through agents in the East, without the applicant going to the hazardous expense of sending on the last fee hefore it is known whether the patent will he granted.

Expense of Applying for Patent.

The Government fee, on filing an application for a patent in the United States, is fifteen dollars; and if the patent is allowed, twenty dollars additional is reqnired. If rejected, the first fee of fifteen dollars is all that is demanded. English, French, Austrian, Prussian, Spanish, and inventors of every nationality, may now ohtain patents in the United States upon the same terms as our citizens. The only discrimination made is against subjects of governments that discriminate against the inhabitants of the United States.

To the foregoing official fees must be added fees for preparing the various documents and expense of drawings. Our charge for preparing a case, presenting it to the Government, and attending to all husinoss connected with it, varies from $20 to $40.

Following is the list of Government fees:

On every caveat	$10
On every application for a patent, for seventeen years	15
On every application for a design, for 3 y'rs and 6 mos	10
On every application for a design, for seven years	15
On every application for a design, for fourteen years	30
On issuing each original patent	20
On filing a disclaimer	10
On every application for a re-issue	30
On every additional patent granted on a re-issue	30
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Caveats.

A caveat is a description of the invention designed to he patented, lodged in the Patent Office before the patent is applied for, and while the inventor is perfecting his design. When *properly* made, it operates as a bar to applications respecting the same invention from any other quarter; hut when improperly done, it is inoperative hy reason of such defect. Tho Patent Office always returns a receipt for caveat papers with a copy of the laws governing the same, hut does not seek to point ont its incorrectness, unless there be some glaring defect.

If worth filing at all, these cases should be prepared with very great care and caution.

One inventor on this Coast, who had filed a caveat by an attorney, was, sometime afterward, surprised to find that his invention, which was a very important one, had heen patented nnd was being brought out hy an eastern company with a capital of more than a million of dollars. Upon inquiring at the Patent Office, he was informed that his caveat was inoperative hy reason of imperfections and his not having complied with the law in that case as mnde and provided.

Our fee for the service varies from $10 to $20. The Government fee, under the new law, is reduced to ten dollars. This latter sum does not now apply, as heretofore, as part of the fee on presenting an application for a patent.

Inventors will ofttimes find it very important to take advantago of the caveat system—the expense under the law being comparatively small.

To enahle us to preparo caveat papers, we only require a sketch and description of the invention; no model heing necessary.

If an inventor puhlicly uses and sells his invention, prior to making applicatiou for a patent, he cannot, afterward, prevent others from doing the same thing; and should any party put the invention into use, before such application for a patent is made, they could continue to use tho specific machine or composition of matter after the patent is issued to another. Filing a caveat does not give the right to affix the words, "Patented," or "Patent applied for."

Patent Rejections.

First. Refusals are always made hy the Patent Office if there is any informality in the specification, or if it does not contain tho entire subject matter of the invention, and is not properly arranged and stampcd. A slight omission often proves fatal.

Second. If the drawings are defective, and are not executed in an artistic manner in India ink, and on sheets of the required sizo, they are subject to rejection.

Third. Applications aro always rejected where the claims conflict with others already patented.

If the rejection should he an unjust one—which sometimes happens—it can generally he reversed, and the patent ohtained hy contesting the case.

For the prosecution of such cases, ohtaining references, making arguments, and personally attending to explain the case (through our agent in Washington), *we charge no second fee,* as is the case with some agencies, hnt attend to the business till finally allowed or rejected, without extra charge, beyond the Government fee.

Inventors who have rejected cases, prepared either by themselves, or for them by other agents, and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unsurpassed facilities in securing favorablo results. We have been successful in securing Letters Patent in many such cases. Our terms are very moderate.

Advantages to Patrons of Our Agency.

Some of the advantages to he ohtained hy patronizing us, may be enumerated as follows:

1. Inventors on this Coast having their applications for patents made out through our agency can sign their papers at once, and thus secure their rights at least *three months sooner* than by trusting the same to distant agencies, situated at New York or Washington.

2. As many of the inventions conceived here are especially adapted to the Pacific Coast, they should be properly hrought out here, which can he accomplished (if the invention is a meritorious one) hy illustrating the subject, with a careful description, in the colnmns of the "Mining and Scientific Press," *free of charge;* tho inventor paying simply for the engraving, which will he executed at a moderate charge. The same cnts can he subsequently used for hooks, letters, or circulars. In a word, we are determined to make it of decided interest for every inventor on this Coast to patronize home talent and enterprise.

3. Most inventions on this Coast are for objects and purposes hut little understood by parties at Washington or other parts of the East. Our mining machinery, processes and operations are hest understood hy those familiar with their use; and a personal, verhal explanation is oftentimes of important service, and enahles us to he more successful than agents generally.

4. Remittances of money made hy individual inventors to the Government sometimes miscarry, and it has frequently happened that applicants have not only lost their money, but their inventions, also, from this cause and consequent delay. We hold ourselves responsihle for all fees entrusted to onr agency. By sending duplicate correspondence to our Washington agent we avoid hazardous delays.

Dangers of Delay.

Situated so remote from the seat of Government, delays are even moro dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuahle patents may he lost hy the extra time consumed in transmitting specifications from Eastern agencies back to this Coast for the signature of the inventor, or by reason of return for amendment when addressed directly hy the inventor to the Government.

Re-Issues.

When, through "inadvertance, accident, or mistake," an *insufficient* or *defective* patent has been issued, the defects in the Specification and Claims can bo cured hy a *re-issue.* In order to obtain this, the inventor, or the holders of the patent, must snrrender the patent, and file an amended specification and drawings, and a statement specifying tho ground for asking for a re-issue. Re-issues are generally applied for nfter it has been found that the patent could not withstand litigation. It is, therefore, cspecially desirable that the new Specification and Claims should he prepared with great care and skill. Terms liberal in theso cases.

Foreign Patents.

In addition to American patents, we secure, with the assistance of co-operative agents, claims in all foreign countries which grant patents, including Great Britain, Franco, Belgium, The Netherlands, Prussia, Austria, Russia, Spain, British India, Saxony, Hanover, Sardinia, Norway, Sweden, Australia, Mexico, Victoria, V. I.

Many valuablo and important inventions of Americans are being yearly surreptitiously patented in foreign countries, some of which governments allow it, thus debarring those who have valuahle inventions from their rights.

Patents ohtainod in England, France and Belgium, will secure the rights of an inventor among many millions of the most enlightened peoplo on the globo; it is thereforo very important, if the invention is valuable, to secure foreign patents.

Our schednle prices for ohtaining foreign patents, in all cases, will he as low, or lower, than those of any other agency.

To Eastern Inventors.

Our close proximity to Mexico, Australia, and the Islands, enahles us to obtain Letters Patent for yon with much less *delay* and expense than they can be secured through any other agency in the United States.

Comparatively few inventors seem to be awaro that Melhourne, in Australia, is a city nearly double in size to San Francisco, hesides the adjacent colonies of great commereial and mineral importance. Inventions of all kinds, hut especially those relating to the saving of gold and silver, if secured in Australia, will often prove of great value. We have competent agents there, and can promise that the husiness will be attended to with fidelity and dispatch.

DEWEY & CO.,

Patent Solicitors, Mining and Scientific Press Office,

505 Clay Street, San Francisco.

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SAN FRANCISCO, SATURDAY, MAY 26, 1866.

VOLUME XII. Number 21.

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Geological Queries.

MESSRS EDITORS:—Will you be good enough to submit the following to the readers of your valuable journal:

From theoretical considerations, I deem it possible that those ancient gravel beds, situated on the western flank of the Sierra Nevada, may be intersected by quartz veins, along anticlinal lines. I wish to ask the readers of the PRESS if any one of them ever saw or heard of a quartz vein intersecting the gravel composing such deposits? If so, where is the vein located, what is its width, and is the gravel in immediate contact with the vein, metamorphosed; and if so, to what extent? If any one can answer in the affirmative, he will confer a favor on the writer and at the same time contribute his mite towards the advancement of the science of our day.

I fully agree with O. W. Easton, that we have anthracite coal buried deeply in the valleys of California, providing the troughs or basins existing between the mountain ranges were not submerged during the carboniferous era.

F. A. H.

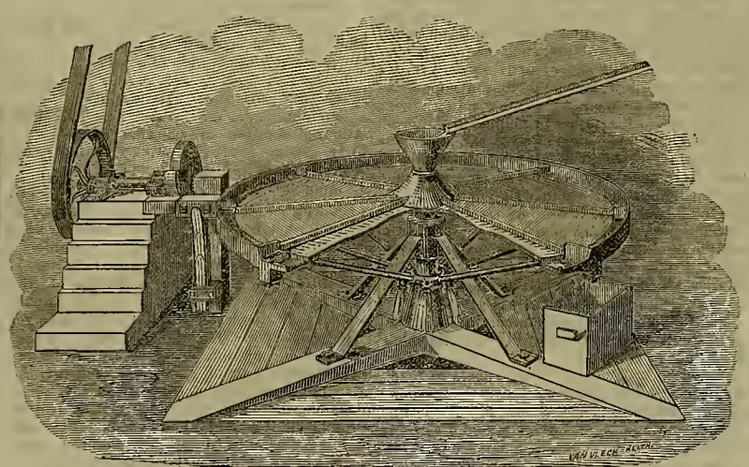
Forbestown, April 3d, 1866.

REMARKS.—We give our correspondent the benefit of the above query; but venture the assertion that he will never find "a quartz vein intersecting the gravel composing" the "ancient gravel beds" of California; neither in the fresh water deposits which are now being worked for their auriferous treasures, and which, according to Professor Whitney, belong to the post-pliocene epoch; nor yet in the much more ancient deposits of marine origin, which are formed, at intervals along the base of the Sierra, and which are referred to an age as far back as the older tertiary, or perhaps even to the upper cretaceous system. Conglomerates, made up of small boulders and water-worn pebbles, imbedded in what was once a pasty, but which is now an indurated mass, and of a much more ancient origin than the cretaceous rocks, frequently have small quartz veins intersecting them in direct lines, often cutting the boulders and pebbles in whatever line or section the direction of the vein chances to strike them, as for instance in the vicinity of Boston, Massachusetts; but we have never heard and never expect to hear of a quartz vein intersecting a gravel range deposited during the post-tertiary age to which, if we understand our correspondent, the deposits to which he refers belong.

MACHINERY OIL.—Dell, Cranna & Co., 513 Front street, advertise a very excellent quality of machinery oil, said to be superior to anything of the kind in use on this coast. Machinists would do well to give them a call. This firm imports coal oils and lamp stock.

VARNEY'S CONCENTRATORS.

There is probably no class of mining machinery at the present time, to which inventors can turn their attention with so much profit to themselves and the public, as to that having for its object the separation of the small percentage of sulphurets from the large mass of quartz, or other silicious matter contained in the ore. It is now universally admitted that the chief source of loss in working both auriferous and argentiferous ores is the waste of the sulphurets. Within the last few years considerable attention has been devoted to perfecting machinery for accomplishing this desired object. Various machines have been devised for this purpose, several of which have been illustrated in the columns of the MINING AND SCIENTIFIC PRESS; and in accordance with our determination to present our readers with everything new and valuable in mining machinery, we give to-day an illustration of another concentrator, recently devised and patented by Mr. Thomas Varney, of this city a gentleman already widely and favorably known to the mining public by his previous inventions of mining machinery.



VARNEY'S CONCENTRATOR.

The Varney Concentrator is quite different in its construction and mode of operation from anything of the kind hitherto devised. In the illustration which we give, the artist has broken away a portion of the machine, in order to give the reader a more clear comprehension of its general construction. The machine consists of a horizontal, circular disk, slightly conical in form, from four to eight feet in diameter, divided into eight compartments, more or less, according to the size of the disk. These divisions are made by radial partitions slightly raised above the surface. The surface of each compartment is covered by quicksilvered copper plates, for the purpose of catching any free gold that may have escaped the previous saving apparatus. Around the periphery of the disk is a slightly raised flange or ledge forming the outer edge of a series of troughs, one of which is placed just below the outer edge of each compartment. The sand is fed into the machine, as shown, at the center, and in such a manner as to be equally distributed over the entire surface. Projecting from the left of the circumference of the disk, will be noticed a short arm resting against an upright steel spring. The machine is set in motion by revolving a small wheel, with a projecting cam, which, striking against the arm attached to the circumference of the concentrating disk, throws it forward an inch or less, from whence it is forced back by the spring against a percussion post or stop, permanently fixed in its position. This, it will be observed, gives a vibratory motion to the disk, which can be made as rapid as may be required.

The force of the water carries the sand outward in every direction from the center of the disk, and the vibratory motion with its accompanying percussion, lodges the heavier particles against one side of each of the partitions which divide the disk into sections; while the lighter portion spreads out, according to the specific gravity of the particles, toward the opposite sides of the compartments or sections, and the action of the water, aided by gravity, discharges the entire mass upon the troughs before mentioned, when the continued oscillating motion and percussion causes the heavier particles to discharge through an opening at one extremity of the trough, from which it falls into a proper receptacle—one of which may be seen in the engraving—while the lighter and worthless sands pass off with the water through an opening at the other extremity, by a suitable conveyance to the waste way. The operation is most complete, and the machine extremely simple. All the care required is the removal of the vessels into which the sulphurets are discharged, as fast as they are filled. This machine can be seen in operation at the rooms of the inventor, at the Pacific Iron Works, on First street.

THE CORRECT DIMENSIONS.—The Western Union Company's light-draught stern-wheel steamers Wade and Windsor, recently built in this city for the use of telegraph builders, are sixty-one feet long and eleven feet beam, instead of forty feet long and nine feet beam, as stated by the *Alta* recently. The machinery was furnished by Mr. John Lochhead.

[Reported for the Mining and Scientific Press.]

California Academy of Natural Sciences.

REGULAR MONTHLY MEETING.

MONDAY EVENING, May 21, 1866.

The Academy met for the first time at their new rooms in Donahue's Bank Building, south-east corner of Montgomery and Sacramento streets.

Twelve members present—Vice President Stearns in the Chair.

Minutes of previous meeting read and approved.

The Committee on Rooms reported that rooms had been obtained, fitted up by a private subscription outside of the usual funds of the Academy, and the library and collection moved and partially arranged. The Committee having concluded their labors, were relieved, at their own request.

The Curator of Conchology announced that the Academy had received from the Smithsonian Institute, two boxes of shells, containing duplicate shells of the U. S. Exploring Expedition, and the shells of this coast, named from the types in the Smithsonian Collection.

The Librarian announced the reception of a large number of very valuable scientific works, received through the Smithsonian Institute, from various scientific societies in Europe.

It was proposed by several members that the Academy should subscribe to the various metallurgical and mining journals now published on the continent of Europe, and not accessible to the mining engineers and metallurgists of this State. Messrs. J. D. Whitney, W. Ashburner and others, pledged themselves for the amount necessary to meet the subscription for the same, and the proposition will doubtless be carried out immediately.

A paper was presented by Mr. W. H. Dall, proposing a new sub-family for the reception of *pompholix effusa lea*, a rare fresh water Californian mollusk, under the name of *pompholinæ*; it was referred to the Publication Committee.

Messrs. Frederick Gulzkow, I. T. Gardiner, Hugo Hoebolzer, C. W. Lightner, Charles Bonner, W. A. Goodyear, Theodore Blake, and C. R. King, were proposed for resident membership.

The Publication Committee called attention to a new sheet of the Proceedings containing a very valuable paper by M. Auguste Remond, on the "Mines and Geology of Northern Mexico." This paper contains a more complete account of the geology and mines of that country than has been given in any or all previous publications on the same subject. The paper is the result of two years arduous and careful explorations made in person by Mr. Remond, who is the first to collect fossils proving the age of the metalliferous and other deposits in those localities.

Prof. Whitney spoke of collections of fossils made in Nevada by Mr. J. E. Clayton, containing many new forms of fossils, among the most remarkable of which is a trilobite. They are extremely valuable, as throwing light on the geology of both California and Nevada.

Sundry bills presented and ordered paid. Adjourned.

T. H. BLOOMER, Secretary.

WE have to beg the indulgence of our readers for the absence of the usual mechanical and scientific miscellany from our columns, which must have been observed for several weeks past. The amount of correspondence which ordinarily finds its way to our table, has been considerably increased of late, by a somewhat lengthy discussion, which, we presume, has now been brought to a close. Its place, and more, will hereafter be supplied with matter presenting greater variety and more general interest. We trust that our correspondents will, in all cases, endeavor to be as brief and as much to the point as possible in their communications.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

New Process for Reducing Silver and Copper from their Ores and Solutions.*

BY DR. LANSZWEERT.

Berzelius (tom. 4, page 144, second edition) has proposed to prepare certain proto-salts of copper by the salts of silver. "It is probable," he says, "that the best way to prepare the oxy-salts of copper is to decompose the chlorids of copper by neutral salts of silver." The simultaneous solubility of several proto and bi-salts of copper; also of different salts of silver in ammonia; the existence and the stability of some proto-salts of copper in an excess of ammonia; and the reduction of most of the salts of silver by these same proto-salts of copper, always in the presence of ammonia, are facts worth our attention.

The reciprocal action of the solutions of proto salts of copper and silver, saturated with ammonia, leads us to the interesting fact that the salts of copper have a value for the extraction and refining of silver. When a bi-salt of copper is dissolved in a large excess of ammonia and this liquid, of a more or less intense blue color, is thrown on metallic copper, freed from the air, we observe that all the bi-salts really soluble in ammonia, nitrate, sulphate, phosphate, acetate, oxalate, tartrate, chloride, etc., dissolves a certain quantity of copper; producing proto-salts, difficult to isolate, notwithstanding that they manifest, sometimes, their presence, by a complete discoloration of the solution. But when the discoloration is not complete, the existence of proto-salt can always be shown by dropping the ammoniacal copper solution in an aqueous solution of the acid of the copper salt.

Thus in reducing the ammonio-sulphate of copper by metallic copper, and pouring this solution in diluted sulphuric acid a precipitate nearly white appears, which colors immediately dark yellow, then red, and as final result of this reaction, we find that metallic copper and sulphate of the bioxyde is formed. The copper thus precipitated is amorphous and of an extreme tenuity, possessing the red color of pure copper, which it loses by exposure to the air; but by friction again takes its metallic luster. This reaction is obtained by most of the acids. The nitrate, phosphate, oxalate, sulphate, tartrate, experimented with, all give less or more rapidly metallic copper. The chloride and acetate are distinguished from the above by producing a fixed proto-salt. When the acetate of the bi-oxyde of ammonial copper, reduced by a more or less continued contact on metallic copper is poured into concentrated acetic acid, a white precipitate is obtained in the form of small clustered prisms, which retain their form long enough to be examined, although they are rapidly disintegrated by contact with the atmosphere. With the bi-chloride of copper, obtained and in the same conditions, a white proto-chloride is precipitated, of a more fixed character.

Proto-chloride of copper is not only produced by the reaction of the ammonio bi-chloride of copper, but also more abundantly when ammonia is replaced by chlorhydric acid or chloride of sodium.

Twenty-five centimetres cubes of a colorless solution of proto-chloride of copper, obtained by the action of metallic copper in a solution of bi-chloride of copper in concentrated chlorhydric acid, has given, by the ordinary modes of analysis 2.63 grms of bi-oxyde of copper, or 9.33 grms of metallic copper per litre. This solubility of proto-chlohride of copper is only obtained by a large excess of chlorhydric acid, as a litre of the same solution contains 235.8 grms of chlorine.

Ten centimentres cubes of a solution of proto-chloride of copper, obtained on metallic copper, in a solution of bi-chloride of copper with chloride of sodium bas given a quantity of bi-oxide of copper corresponding to 135.4 grms of metallic copper, by litre of solution.

The quantity of proto chloride of copper obtained by ammonio bi-chloride of copper through metallic copper, varies very much and according to the strength of the ammonia used.

By ammonia at 18 deg. Cartier, a liquor was obtained giving 92.8 of metal in the state of proto-chloride. With ammonia of 21 deg. the quantity of copper, as proto-chloride, was as bigh as 139.8; ammonia at 18 deg., diluted with its volume of water, did not furnish over 74.4 of copper per litre of solution. The weight of the proto-salt in solution can be considerable, even when the solution is still of a deep blue. The coloring power of the bi-ammoniated salts of copper is very great; as it can be shown that the difference between the quantity of copper as proto-salt and the amount of metallic copper was only a fraction of a gramme in the solution still colored.

It results from the above facts that bi-bichloride of copper, to which is added ammonia of 21 deg. constitutes the proper menstruum to concentrate proto-salts of copper. For this reason, and the stability of the solution, it has always received the preference in the reduction of the salts of silver. If it is desired to obtain pure proto-chloride of copper, a solution of proto-chloride of copper in chlorhydric acid should be preferred, which precipitates by the addition of water, a white crystalized proto-chloride.

We will now examine the reaction of the salts of silver dissolved in an excess of ammonia. In pouring a solution of ammonia proto-chloride of copper into a solution of ammonio nitrate of silver a precipitate of absolutely pure metallic silver is immediately obtained, and the following particulars are observed:

The precipitated silver is in an amorphous state and in such minute division that the diameter of each atom does not exceed 0.0025 of a millimeter. Silver obtained by galvanic action or through metals, is commonly brilliant and chrystalized. The amorphous silver is of tarnish gray; sometimes white; but in all cases of the most vivid metallic luster, when burnished; and through its finely divided state, it is easily applied to various substances, such as wood, stone, leather or other tissues.

As silver thus obtained is pure and divided, its application in various industries might be made useful. To show the advantages to be derived from this reaction, such as extracting, purifying or gilding silver; or to obtain a more correct analysis of the compounds of copper, it should be borne in mind that the reaction takes place between the acting principles in the proportion of their chemical equivalents.

Thus by the weight of the precipitated silver the correct quantity of oxyde of copper is determined, no matter whether the proto-salt is pure or mixed with bi-salt. We have thus a new and perfectly correct method by which to analyze a mixture of proto and bi-salt of copper, and thus are able to avoid all the uncertainties which have hitherto attended the assaying of copper ores.

The following cases, where correct analyses are difficult to be obtained, will show the value of the above process:

When bi-carbonate of soda is made to react on proto-chloride of copper (avoiding the contact of the atmosphere) a red powder is obtained, easy to dry, and which is not a carbonate as is generally supposed; but a protoxyde of copper which oftentimes precipitates other substances. The amount of copper contained in this compound gives, by the ordinary method, 83.42 per cent. of metal To determine, by the new process, in what state the copper combined in this compound existed, 0.561 grms were treated with a solution of ammonio chloride of silver. The weight of the precipitated silver obtained was 0.800 grms—a number corresponding to 0.235 grms of copper, which, multiplying by 2 gives 0.470 or 83.6 per cent. of metallic copper—nearly corresponding with 83.42, found by the previous method. All the metal is thus in this compound in the state of proto-oxyde.

To obtain correct results some precautions should be observed which practice very soon teaches. Thus when the compound to be analyzed is chrystalized it should be reduced to an impalpable powder before being placed in the matrass in which the reaction is to take place, and which must be at least of a capacity of 200 centimetres cubes. When placed in the matrass it should first be covered with water, on which should be carefully poured ammonia, taking care that the latter does not come in contact with the substance to be treated; then by the aid of a long pipette, which reaches to the bottom of the matrass, the ammoniated silver solution should be placed in direct contact with the pulverized substance. Care should also be taken that the matrass is full, then closed and shaken. If these precautions are neglected, the oxygen of the air will intervene and diminish the weight of the precipitated silver. It should furthermore be observed that cyanide of silver cannot be reduced by proto-salts of copper; and that the presence of the sulphocyanides, iodides, and hypo-sulphites also prevent the reaction and are exceptions to this process.

The study of copper compounds is accompanied with difficulties against which chemists have long contended; but which are completely obviated by the use of this new method of analysis.

In proof of the correctness of the foregoing, it will be found that if the copper compound is used in proper proportion to the amount of silver contained in solution, all the silver will be precipitated from its solution. For example, take the following experiments:

First.—1.115 grms of pure silver dissolved in nitric acid, and saturated with ammonia. To this add a solution of proto chloride of copper, also saturated with ammonia, and wash dry and weigh the precipitate, which will give 1.114 grms or 99.91 per cent. of metallic silver.

Second.—0.588 grms of silver treated the same as above, gave 0.5855 grms of silver or 99.57 per cent of silver.

Third.—0.9827 of the same metal, treated the same way, and precipitated by the ammonio chloride of copper, gave 0.983 grms or 100.03 of silver in place of 100.

This process gives the silver in such an easy state to collect and weigh that the analysis of silver compounds, by this method will be found much simpler and more quickly effected.

To determine the solubility of chloride of silver in various liquids, pure ammonia of different degrees of strength are employed; also ammonia to which was added an aqueous solution of chloride of ammonium, potassium, etc.; besides solutions of the chloride of silver, in other chlorides, without the addition of ammonia. For the precipitation of the silver in the metallic state proto chloride of copper, strongly ammoniated, was used, and the numbers in the following table give the quantity of metallic silver obtained from a litre of solution:

Solvents of Chloride of Silver.	Am't of Metallic Silver per litre of Solution.
Ammonia 18° Cartier	51.6 grms.
Ammonia 18° do with its volume of water	23.8 grms.
Ammonia 22° Cartier	58.0 grms.
Ammonia 26° Cartier	49.6 grms.
Ammonia 18° Cartier diluted with its volume of saturated solution of chloride of sodium	20.8 grms.
Ammonia 18° Cartier diluted with its volume of a saturated solution of chloride of potassium	20.4 grms.
Ammonia 18° Cartier diluted with its volume of chloride of ammonium	22.4 grms.
Saturated solution of chloride of sodium	1.2 grms.
Saturated solution of chloride of potassium	0.5 grms.
Saturated solution of chloride of ammonium	1.2 grms.

Chloride of silver is insoluble in chloride of calcium or zinc. The above numbers have been obtained by using the curdy chloride of silver; the difference in using fused chloride is very little, admitting the solubility of the former chloride as 49.6 that of the fused would be 48.4; in this latter state it takes a longer time to dissolve. The above table shows that 58 grms of chloride of silver are easily dissolved in ammonia of 22°, which is usually the commercial strength of this article. It seems plausible, therefore, that silver ores converted into chlorides could be more easily and cheaply reduced than by the use of mercury. The residue of silver of the laboratories and assay offices are so promptly reduced by this process that no other will eventually be resorted to.

A litre of ammonia, saturated with chloride of silver, would be precipitated by 230 centemetres cubes of ammonio solution of protochloride of copper, at its maxium of concentration. The precipitant should always be maintained in excess; and, therefore, it shows that the same quantity of copper would be used indefinitely for this purpose. The chloride of copper obtained should be reduced by zinc, which is easily done in the ammoniated solution, and thus metallic copper obtained, necessary to the formation of the protochloride. Furthermore, ammonia could be reproduced by lime, and brought to the proper degree of strength. It seems useless to dwell upon the simplicity of this novel process as applied to the refining of silver.

*Collated from the "Moniteur Scientifique."

Why will the emblems of America outlive those of England, France, Ireland or Scotland? Because the *Rose* will fade, the *Lily* will droop, the *Shamrock* wither, and the *Thistle* die; but the *Stars* are ETERNAL.

To DREAM gloriously, you must act gloriously while awake; and to bring angels down to converse with you in your sleep, you must labor in the cause of virtue during the day.

One of our exchanges says: "Dr. Joseph Worcester, author of a dictionary, and inventor of Worcestershire sauce, is dead." Such is fame.

"Have you seen my black-faced antelope?" inquired Mr. Lowcope, who has a collection of animals, of his friend. "No, I hav'nt. Who did your black-faced aunt elope with?"

[Written for the Mining and Scientific Press.]

Letter from Placer County.

THE BANKER MINE.

EDITORS PRESS:—The Banker mine is the name of a truly remarkable lead, of which I send you here a brief description, which I think will prove interesting to your numerous readers. The above-named mine is situated in the county of Placer, four and a half miles from Lincoln, in an northeastern direction. The locality was formerly called Whisky Diggings, but its present owner, going in pace with our more civilized times, which have brought into desuetude such names as Hangtown, Murderer's Bar, Jackass Gulch, etc., has named this place Valley View; and a very appropriate name it is, since from here one can see at a glance the greatest part of that former inland sea, called the Sacramento Valley. The whole Coast Range, intercepted only by the Marysville Buttes, is plainly visible, and forms a fitting frame to this grand picture.

In the origin it was called the Baker Copper mine, and incorporated; three years ago it was opened under the efficient superintendence of J. C. Crosby, Esq., and it was whilst hunting for copper that a streak of gold-bearing rock was found alongside the copper ore, at a depth of about sixty feet from the surface. The mine came then under the notice of A. Harpending Esq., who thought there *was something there* and he acquired the title to nearly all the ground by purchase.

The ground claimed extends a thousand feet in length, and comprises all that is apparently valuable. The length of the mine is much easier to define than its width, and I am tempted to say that it is as wide as it is long. But I think I can affirm, without fear of being taxed with exaggeration, that the pay rock extends on a width of two hundred and fifty feet. First, let me say what constitutes pay rock in this instance.

This mine has a double and very distinct character; there is a gold mine and a copper mine in the same ground; the top or outcrop, to a depth of over seventy feet, is a true copper gossan or decomposed iron hat, such as is found over most all the mines of Cornwall and Devonshire, which yield copper pyrites or yellow copper ore. The same class of rock is found in the surface of the copper mines of Copperopolis, such as the Union, Keystone, Calaveras, and especially the Webster mine, three miles south of Copperopolis; also, at the Newton, and Dotie, and Randall mines in Amador county; also some of the Campo-Seco mines. The only difference is, that where there is in the above-named mines a few feet in width of this gossan, it has assumed here colossal proportions both in depth and width. The only mine in the State which bears much resemblance to this is the Hughes mine in Gopher District, Calaveras county. In this instance, I cannot do better than quote the very language used by Prof. Whitney in his work on the "Noted Mines of the World;" it applies so closely to the Banker mine that it seems to have been written as a description of this same:

Among the first things to be noticed is the decomposed state of the upper portion of the veins, giving rise to what the miners call "gossan," which usually forms the back of the productive copper lodes. This substance is, all over the world, looked upon as a favorable indication of valuable ores at some depth below. It is a mixture of quartzose matter, more or less mixed with oxide of iron, and usually contains traces of other metals in the shape of oxides, carbonates and sulphurets, as would naturally be expected, since it is in all cases the result of the decomposition of copper and iron pyrites, and other sulphureted ores which formed the original vein. The sulphuret of copper is oxidized into a sulphate, which is soluble in water, and is carried away in the streams and by the rains, while the iron remains as an insoluble hydrated oxids. If there was gold or oxide of tin in the veinstone, it remains in its original form, and is generally concentrated together.

The vein runs northwest and southeast; the incline is nearly northeast at an angle of about seventy degrees, so far as known. The mine has been opened in the start by means of two shafts, one of which was sunk at the southern

end to a depth of eighty-five feet, and another nearer the north to a depth of sixty five feet, not to mention other smaller shafts and cuts. Out of the latter a large quantity of rich red and black oxides, green and blue carbonates, and some copper smut (popularly called in this country black oxide), were taken and shipped to Swansea. But they committed here the same fault that was committed in so many mines in this State—they started a big enterprise with little money, and just when the ground looked the most promising, all work had to be suspended.

At present little is being done to develop the copper mine, and all the energies of the proprietor are directed toward the working of the gold-bearing rock, which is done by means of an open cut which taps the foot of the hill, and widens out at a depth of a hundred feet into a regular quarry; the whole hill is now being breasted away, thus affording extraordinary facilities for extracting rock cheaply; a ten is mined and carried to the mill for about twenty-five or thirty cents. The rock is very docile to extract and crush. Three white men and four Chinamen take out from forty to fifty tons a day; a 5-stamp mill crushes that quantity in twenty-four hours; stamps weigh 400 pounds; eighty drops a minute. For the present, two of Moore's pans and a peculiar system of aprons and riffles are used to save the gold; but the whole mill is now going to be remodeled, the battery will be improved, and thirteen large-sized Baux & Guiod's pans need to save the precious metal. After a series of trials these pans have been found to be the best adapted to this rock, and let me say, *en passant*, that I think that it is the *best pan out*.

The rock contains an average of fifteen dollars per ton in free gold; most of it very fine; it amalgamates quite easily when properly brought in contact with quicksilver. Silver varying from one to three dollars per ton has been extracted also by means of the Baux pan; it has not as yet been ascertained whether the silver is contained in the shape of sulphurets, or in a free or native state. Considerable free silver has lately been discovered on the hanging wall of a vein of true gray copper and copper smut.

The mine, or rather the quarry, as it stands, shows an excavation of eighty feet long and thirty wide on an average, presenting a perpendicular face of forty-five feet elevation, which increases as the rock progresses into the hill. It presents a very interesting and unique sight to a professional man. Numerous and varied stratifications are laid bare, offering a rare opportunity of study, since the quarry is open, so as to intersect in some place and follow in others the different veins of carbonates, sulphurets, pyrites, decomposed gossan, talcose sluto, quartz and serpentine.

It is the intention of Mr. Harpending to start a new level, which will attack the mine at a depth of twenty-five or thirty feet below the actual working; the new mill will be placed in a different site, so as to feed from this lower level; most all the *horse* and extraneous matter seems to run out at the foot of the present working; it bears evidence of being mostly country rock and sedimentary matter, washed and thrown into accidental cracks or openings of the surface.

There is hardly any limit to the quantity of rock that could be furnished for milling purposes, since this copper gossan stands pre-eminent from the surrounding country, and could be opened on three sides at once. As the mine now stands, I think that three 20-stamp mills could be furnished each with 150 tons of rock every day during several years, without requiring any hoisting of rock. The gold-bearing gossan extends much below the present workings, and from the dump piles of the different shafts I ascertained that it goes beyond a depth of fifteen fathoms.

I entertain a very favorable opinion of this mine for copper; that there is a true and powerful lode of copper ore at a certain depth I have not the slightest doubt. Now, as to what the percentage of the ore will be, that is a point which can only be solved by actual working. I understand that serious and energetic work will be done this summer to develop the copper interest of the Banker mine. If a body of copper pyrites of a reasonable width, containing from ten to sixteen per cent. of copper, is struck, it will prove remunerative, since the Marysville railroad passes within four miles from here, and ore could be shipped to San Francisco for about five dollars per ton.

Another mine of the same character has been lately discovered by Mr. Harbin, about five miles from here, in a southerly direction; it is owned by the above-named gentleman and Messrs. George Hearst and A. Harpending; a 10-stamp mill, with a number of Baux & Guiod's pans will be erected on the mine this summer.

Let me conclude in calling earnestly the attention of the copper miners of this State to this mine. Gossan is found on most of our copper mines; it all contains more or less gold, and is easily extracted and worked. That fact has long ago been ascertained in England and many other parts of Europe; testimony to that assertion is also found in one of Prof. Whitney's works. I suppose that the reason why, in many cases, it has not been worked out, is that the removal of a large part of the upper crust of a mine opens it too much to the incursions of the pluvial waters, and hinders the working in depth for copper. R.

Valley View, Placer County, May, 1866.

[Written for the Mining and Scientific Press.]

From El Dorado County.

BY OUR TRAVELING CORRESPONDENT.

[Continued from Page 306.]

Messrs. Editors: An imperfect tracing of some of the mineral features of that portion of El Dorado, lying between the Middle and South Forks of the American river, having been made in former letters, before entering upon those of Placerville and immediate vicinity, we would introduce you without further ceremony to the old town of Coloma, the oldest mining camp of the State. It was here that little gold nugget was found, which, in a moment as it were, infused new life into trade and charmed States into being. Here too is the home of

MARSHALL,

Who, in justice, may be styled the Columbus of the mineral world, and who still lingers here around the spot of his early hopes, not much the richer I fear from his valuable discovery. Cordially received at his cottage, I listened with avidity, almost *tearfully*, to the story of his checkered career, and could scarcely help thinking that a handsome *annuity for life* would be a happier expression of sympathy than a tear at the grave. Like most of his neighbors, he was found engaged in cultivating the vine, to which the soil here, as well as in large districts adjacent, seems peculiarly adapted; so that the wine interest of the county is daily growing in importance, (a company having been organized, with headquarters at Placerville, to foster its growth), and bidding fair as a source of wealth to rival the almost fabulous products of her former gold placers, or the well-founded hopes for the future from many an unexplored mineral vein or ancient river bed, to which we now return.

THE DANISH CLAIM,

So called because owned by Peterson and brother, natives of Denmark, lies to the north of the river in full view from Coloma, and her terraced hills in the back-ground; and with the exception of a small but somewhat hopeful vein on the bluffs a little eastward, is the only quartz claim now worked within a circumference of several miles. The surface at the base of the mountain has been sluiced off up to the vein, laying a portion of it bare, although to no great depth. At the points exposed it appears to be dipping very fast to the west, with granite overlying and talcose slate underneath on the east.

This claim has paid somewhat irregularly, but at times extravagantly, yielding about one year ago from a run of three days, the snug little sum of $27,000, and paying fair wages from that time until the present.

SURFACE AND GRAVEL CLAIMS

Are still found on each side of the river, some of which are believed to be as promising as those of Coloma's palmiest days—her streets not actually paved with gold, but overlying rich mineral deposits, such as are now being opened at Uniontown, one and a half miles below in the

NORRIS CLAIM.

It covers an area of 300 to 400 feet square, planted with fruit trees which are about to be undermined for speedier and greater returns in the form of the precious metals, which will doubtless be the result in this particular instance, although it frequently occurs that good agricultural land is ruined for ages by surface mining, where one or two crops of hay, grain or fruit from the soil would be of far more value than the yield from the gold, and at the same time turned into coin with less labor and cost. Mr. Norris, who owns the claim in connection with his sons, informed me that the ground adjoining below worked at the rate of $5 to the pan. While present, one pan was washed out which contained about $1. It has prospected as high as $4.30, and the work has but just commenced.

COLD SPRINGS.

After leaving Coloma, I hurried through Gold Hill and Cold Springs in a drenching rain to this place, taking no note of quartz, except one or two good looking copper lodes, owned and worked by a Santa Clara company, the notes of which having shared the same fate with myself, became too much dilapidated to be readable. This much I remember that they have 20 per cent. ore, not yet in sufficient quantity to pay in the lode where their machinery is erected, and a shaft on it of about 110 feet in depth. A larger parallel lode belonging to this company, with equally good, if not better copper indications, had been brought to view by a bed-rock sluice, not an uncommon mode of saving the gold, where the conditions are suitable for its employment.

PLACERVILLE AND SURROUNDINGS.

While here I have had but little opportunity of examining the quartz lodes, some of which paid, in days past, large dividends; one of these, the Pacific, having a mill upon it, but not now at work; and is considered here, a valuable mine if worked to advantage.

THE NEW YORK HARMON G. & S. M. CO.

Have a promising lode a quarter of a mile from this place, which has yielded large amounts in the past, but not having the statistics before me, I cannot state the figures.

The shaft on the lode is more than seventy feet in depth, five feet by eight, partitioned and substantially curbed. The pump in use is one of six inch bore and three foot stroke. As a large amount of water was in the mine, I did not deem it advisable to venture down, but I learned from Mr. Epley, the efficient superintendent, that the lode was at least four feet in width, having black slate on the hanging wall and greenstone on the other. The quartz last taken out was a good deal decomposed, mixed with small sulphurets of iron, showing some fine gold, with some dark colored scums running through the larger pieces of quartz, giving good marks of a mineral character. The company have put up a 15-stamp mill, which is well built and in good running order, propelled by an engine of 45-horse power. I here first saw a couple of Little Giants, sometimes called the Douglas Cracker, which I had not the pleasure of seeing in operation, as their services had not yet been called into requisition. At least fifty tons of ore can be taken out per day, which, as I was informed, will be done before this article shall appear, and if the yield is not over $10 per ton—a low estimate probably—this mine will soon become very valuable property, owing to cheapness of labor, facilities for mining, accessibility and other causes unnecessary to mention.

There are other claims in this neighborhood to which we cannot now allude, except briefly to that of Capt. Reed's at Poverty Hill, as an illustration of the fact that rock can be here worked with profit that pays no more than $5 per ton, where the claim is managed with efficiency and a due regard to economy, for the Captain assured me that his quartz thus far had paid only from $2.50 to $5, and that it had yielded something over expenses even at these low rates. He is now below water level, and his rock is now beginning to show a decided improvement. Without underrating the quartz ledges of this place, some of which appear somewhat broken up, I must say that not the least attractive feature of this vicinity, consists in the number, extent and richness of the mining claims located and worked for the gold deposits in what appears to be

ANCIENT RIVER CHANNELS,

Many of which I examined with some care and more curiosity. They are not unlike those found in other parts of the State, and similar in every important particular, except the running water, to our mountain rivers, having the same kind of bed-rock, with a slightly different quality of gold in the crevices, overtopped with sand, gravel, sulphurets, leaves and wood; sometimes, however, petrified, and exhibiting also the usual fall of their channels, and their other principal characteristics. In some instances the beds of these underground streams appear to have been changed more than once. Some volcanic eruption has poured down its molten liquid, covering over their golden sands, gravel beds, and whatever else within the channel. The river then for a few years flows over the lava or other volcanic debris, until another alluvial deposit is made. Another layer of lava from a second eruption follows, and thus alternately till it is turned aside from its old banks to seek another channel, sometimes parallel, at others with its direction changed entirely. At White Rock, I jumped into a car, and rode down the bed of one of these subterranean streams for 1,200 feet through a tunnel, with 200 feet of gravel, volcanic cement and earth above, and among other curiosities, found another quartz lode, which had probably deposited some of its golden treasure to enrich some of the old bars now worked. In another tunnel at Smith's Flat, a boulder was seen as large as a miner's acabin, which had evidently been rolled over, having washed a hole underneath—such as may be frequently met with in many of our rivers.

The gravel from these claims is usually taken out by means of tunnels and drifts, afterwards passed through the sluices, in some instances crushed under stamps and otherwise worked like quartz. Occasionally the whole mass, where the conditions are such as to allow it, is melted or rather beaten down by the force of the hydraulic. One or two of these as illustrations and we close.

THE CLEMET D. MOORE CLAIM

Is situated on Cedar Hill in the suburbs of the town, and is owned by Messrs. Durning, Moore & Shook. It covers an area on the surface of nearly 600 feet square, was formerly worked to a certain extent by tunneling, and paid very handsomely. It has been recently opened by a cut some twenty feet lower than the old tunnel, under more favorable auspices by the parties above named, and at a cost of some $1500. They have commenced work in earnest, and as it has been estimated to pay from ten to twelve cents to the pan, we may look for a good yield. One of the parties thinks the claim can be made to pay $100 per day. This is not at all unreasonable if the ground is as rich as that of

ALDERSON & BROTHERS,

Lying across the ridge one mile south in Cold Hollow, which cleaned up for last month $9,000 above all expenses. This has been and probably is now, one of the richest hydraulic claims in the State, having about eighty feet of pay gravel. Immense sums have been taken out from time to time, but the memoranda kindly furnished on my solicitation, have been mislaid, and the amounts which were truly astounding cannot be given. There remains here extensive tracts of placers for many miles around, some perhaps as valuable as any of those mentioned, but above the level of the ditches hitherto brought in; many more, which can be made to pay good living wages, if not large profits, when water can be afforded at lower rates. A project for effecting this object planned on a grand scale, is now in contemplation, some of the preliminary steps having already been taken, I understand, but the details of which cannot now be made public, for reasons best known to the projectors, which, if carried to a successful termination, will contribute much to the wealth and prosperity of this community, and millions to the currency of the country.

With many thanks to Mr. Cullen, my accommodating host of the Cary House, and to our friend Hill and others of Placerville for many acts of courtesy, and for assistance rendered on your account, which I hope may prove mutually beneficial to us all, I remain as ever, yours hurriedly, Prospector.

El Dorado, April 1866.

The American *Journal of Mining* gives some interesting mining statistics from the census reports of 1860. Of iron, it says:

The number of States engaged in mining iron was ten (10), viz.: Pennsylvania, Michigan, New Jersey, New York, Missouri, Massachusetts, Connecticut, Maryland, New Hampshire and Ohio. Their rank, in the amount produced, is in their order named. New Hampshire and New Jersey raised mainly the magnetic ores, New York the magnetic and hematites, Connecticut hematites, Pennsylvania and Ohio raised the argillaceous ores of the coal measures, and Missouri and Michigan raised the compact red and black oxides.

One hundred and fifty-seven mining establishments were engaged in raising iron, employing three thousand one hundred and seventy-seven men, and paying them in wages nearly a million of dollars. The capital reported was $2,090,527, while the value of the products was $7,723,860.

Of copper, there are 42 mining establishments producing 499,534 tons of ore, employing a capital of $21,400,000, and giving labor to 5,039 men, and paying them $1,793,500 in wages; the sum total of product was $3,978,282. The rank of States in production was as follows: Michigan, New Mexico, Tennessee, and North Carolina.

Of coal, we raised 15,000,000 tons, giving employment to 36,469 workmen, and paying them in wages 9,650,000; the value of their labor in coal raised at the mouth of the mines was 20,000,000 against a capital of $39,428,670.

Swearing in conversation indicates a perpetual distrust of a person's own reputation; and is an acknowledgement that he thinks his bare word not worthy of credit.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD

Friday, May 18.

AFTERNOON SESSION.

5 shs Chollar-Potosi at 335 per foot, s 30.
3 shs Chollar-Potosi at 337½ per foot.
5 shs Chollar-Potosi at 340 per foot, b 22.
4 shs Alpha, G. H. at 240 per foot.
5 shs Yellow Jacket at 750@742½ per foot.
3 shs Yellow Jacket at 742½@740 pr ft, s 30.
1 sh Belcher at 305 per foot, b 3.
40 shs Daney at 10 per foot.
24 shs Ophir at 410 per foot, s 30.
120 shs Ophir at 420@435 per foot.
4 shs Crown Point at 1200 per foot.
5 shs Confidence at 35 per share, s 30.
20 shs Confidence at 35 per share, s 3.
5 shs Confidence at 35 per share.
10 shs Exchequer at 8¼ per share.
25 shs Overman at 63@65 per foot, s 3.
25 shs Overman at 66@68¾ per foot, b 30.
5 shs Overman at 68¾ per ft, b 10.
15 shs Overman at 65@64 per foot, s 30.
10 shs Overman at 63@66 per ft.
5 shs Overman at 65, s 5.
16 shs Bullion at 80 per share.
10 shs Bullion at 82 per share, b 30.

Saturday, May 19.

10 shs Yellow Jacket at 730@717½ per foot.
3 shs Yellow Jacket at 720 per foot, s 30.
1 sh Yellow Jacket at 722½ per foot, s 3.
29 shs Chollar-Potosi at 330@325 per foot.
5 shs Chollar-Potosi at 325 per foot, s 3.
163 shs Ophir at 415@410 per foot.
60 shs Ophir at 407½@412½ per foot, s 30.
34 shs Ophir at 415@407½ per foot, s 3.
12 shs Ophir at 407½ per foot. s 5.
72 shs Ophir at 422½@430 per foot, b 30.
12 shs Ophir at 415 per foot. b 5.
12 shs Ophir at 414 per foot, s 20.
24 shs Ophir at 420@417½ per foot, b 10.
12 shs Ophir at 416 per foot, b 6.
2 shs Belcher at 270 per foot.
55 shs Overman at 66@65 per foot.
15 shs Overman at 66@65 per foot, b 10.
20 shs Overman at 65 per ft.
30 shs Overman at 67½@66 per foot, b 30.
30 shs Overman at 65@64 per ft, s 30.
5 shs Bullion at 77½ per share.
5 shs Kentuck Copper at 12 per share, s 3.
5 shs Imperial at 130 per share.
5 shs Imperial at 132 per share, b 30.
10 shs Confidence at 35 per sh, s 3.
Amount of sales.....$82,130 00

Monday, May 21.

16 shs Gould & Curry at 850 per foot.
45 shs Chollor-Potosi at 335@300 per foot.
3 shs Chollar-Potosi at 310 per foot, s 3.
2 shs Hale & Norcross at 955 per foot, s 3.
2 shs Hale & Norcross at 955 per ft, s 30.
4 shs Hale & Norcross at 960@957½ per ft.
8 shs Yellow Jacket at 730@700 per foot, s 3.
4 shs Yellow Jacket at 705@690 per ft.
3 shs Yellow Jacket at 700 per foot, s 7.
3 shs Yellow Jacket at 700 per foot, b 3.
216 shs Ophir at 400@380 per foot.
261 shs Ophir at 390 per foot, b 3.
36 shs Ophir at 390 per foot, b 5.
24 shs Ophir at 385@380 per foot, s 5.
12 shs Ophir at 375 per foot, s 30.
6 shs Belcher at 217½@207½ per foot.
11 shs Belcher at 210@205 per foot.
3 shs Belcher at 210@215 per foot. b 30.
60 shs Exchequer at 8¼ per share.
60 shs Exchequer at 8¼ per sh, b 3.
20 shs Overman at 65@60 per foot, b 10.
75 shs Overman at 63@54 per ft.
10 shs Overmanat 62@60 per ft, s 30.
5 shs Overman at 65 per foot. b 30.
5 shs Overman at 67 per foot, b 5.
5 shs Bullion, at 73 per share, s 30.
45 shs Bullion at 72½@67½ per sharo.
25 shs Imperial at 128@125 per share.
50 shs N B & Mission R R at 50 per share.

AFTERNOON SESSION.

8 shs Belcher at 210@185 per foot.
3 shs Belcher at 200@190 per foot, b 30.
1 sh Belcher at 175 per foot, s 30.
200 shs Ophir at 365@350 per foot.
12 shs Ophir at 350 per foot, s 3.
72 shs Ophir at 350 pr ft, b 3.
168 shs Ophir at 350@355 per foot, s 5.
84 shs Ophir at 350@352½ per foot, s 30.
12 shs Ophir at 365 per foot, b 30.
90 shs Chollar-Potosi at 300 per foot, s 30.
37 shs Chollar-Potosi at 300@295 per foot.
10 shs Chollar-Potosi at 302½ per foot, s 3.
7 shs Yellow Jacket at 660@620 per ft, s 30.
9 shs Yellow Jacket at 665@625 per ft.
1 sh Yellow Jacket at 665 per foot. b 10.
2 shs Yellow Jacket at 645 per foot, s 3.
1 sh Yellow Jacket at 632 per foot, b 2
3 shs Yellow Jacket at 635 per foot, b 10.
25 shs Overman at 50@51 per foot.
34 shs Imperial at 122½@112½ per share.
5 shs Imperial at 120 per share, b 2.
Amount of sales.....$162,695 00

Tuesday, May 22.

10 shs Yellow Jacket at 640@670 per ft, b 30
5 shs Yellow Jacket at 520@600 per foot.
2 shs Yellow Jacket at 600 per foot, s 30.
1 sh Yellow Jacket at 515 per ft, b 10.
96 shs Ophir at 360@367½ per foot, s 3.
12 shs Ophir at 360 per ft, b 3.
12 shs Ophir at 360 per foot.
25 shs Chollar-Potosi at 300 per foot, b 3.
10 shs Chollar-Potosi at 310 per foot, b 30.
5 shs Chollar Potosi at 300 per foot, s 30.
5 shs Chollar-Potosi at 297 per foot.
2 shs Hale & Norcross at 955 per foot.
4 shs Hale & Norcross at 955 per foot, s 3.
8 shs Belcher at 170@175 per foot.
7 shs Belcher at 175@174 per foot, s 3.
9 shs Belcher at 185@180 per foot, b 30.
1 sh Belcher at 175 per foot, b 3.
1 sh Belcher at 175 per foot, s 30.
70 shs Exchequer at 7½ per share.
20 shs Overman at 62½@50 per ft.
10 shs Overman at 52½ per foot, b 30.
20 shs Overman at 50 per ft, s 30.
35 shs Bullion at 65@65 per sbare.
5 shs Bullion at 53 per share, s 30.
5 shs Imperial at 115@116 per share.

AFTERNOON SESSION.

2 shs Yellow Jacket at 600 per foot.
1 sh Yellow Jacket at 610 per foot, b 3.
8 shs Yellow Jacket at 610 per foot.
2 sh Yellow Jacket at 610 per foot, s 30.
3 shs Yellow Jacket at 605 per foot, s 30.
4 shs Yellow Jacket at 625 per foot, b 30.
5 shs Yellow Jacket at 615 per foot, b 3.
5 shs Yellow Jacket at 612½ per foot, b 3.
1 sh Yellow Jacket at 610 per foot, s 3.
48 shs Ophir at 375 per foot.
36 shs Ophir at 370 per ft.
35 shs Ophir at 370 per foot, s 3.
12 shs Ophir at 374 per foot.
12 shs Ophir at 372½ per foot.
48 shs Ophir at 375 per foot, s 3.
12 shs Ophir at 377½ per foot.
36 shs Ophir at 375 per foot, s 30.
24 shs Ophir at 380 per foot, s 10.
24 shs Ophir at 377½ per foot, s 5.
12 shs Ophir at 390 per foot, b 30.
132 shs Ophir at 380 per foot.
1 sh Belcher at 180 per foot, b 5.
1 sh Belcher at 180 per foot, s 3.
1 sh Belcher at 182½ per foot.
3 shs Bolcher at 182½ per foot, b 10.
7 shs Belcher at 180 per foot.
1 sh Belcher at 180 per foot, s 10.
1 sh Belcher at 182½ per ft, b 30.
5 shs Chollar-Potosi at 300 per foot.
5 shs Chollar-Potosi at 300 per foot, s 3.
5 shs Chollar-Potosi at 295 per foot.
5 shs Chollar-Potosi at 295 per foot, s 30.
5 shs Chollar-Potosi at 290 per foot, s 30.
4 shs Alpha, G H, at 190 per foot.
11 shs Imperial at 120 per share.
7 shs Imperial at 118 per share.
5 shs Imperial at 119 per share.
10 shs Overman at 49 per sh.
5 shs Overman at 80 per sh, s 30.
10 shs Overman at 50 pr sh, b 30.
Amount of sales.....$129,876 00

Wednesday, May 23.

18 shs Yellow Jacket at 622½@645 per foot.
1 sh Yellow Jacket at 630 per foot, b 15.
1 sh Yellow Jacket at 620 per foot, s 30.
2 shs Yellow Jacket at 610 per foot, s 3.
220 shs Ophir at 370@386 per foot.
12 shs Ophir at 370 per foot, s 15.
190 shs Ophir at 375@400 per foot, b 30.
50 shs Ophir at 375@396 per foot, s 3.
12 shs Ophir at 390 per foot, b 15.
103 shs Ophir at 380 per foot, s 30.
72 shs Ophir at 382½@382 per foot, s 10.
5 shs Chollar Potosi ot 305 per foot, s 10.
26 shs Chollar-Potosi at 305@313 per foot.
32 shs Chollar-Potosi at 310@313 per ft, s 30
25 shs Chollar-Potosi at 315@320 pr ft, b 30.
3 shs Belcher at 200@205 per foot, s 3.
9 shs Belcher at 200@205 per foot.
1 sh Belcher at 200 per foot, s 30.
2 shs Belcbor at 205 per foot, b 5.
1 sh Belcher at 210 per foot, b 30.
40 shs Overman at 50@53 per foot.
30 shs Overman at 52 per foot, b 30.
10 shs Overman at 52 per ft, s 30.
35 shs Bullion at 60@63 per share.
5 shs Bullion at 60 per share, s 30.
10 shs Imperial at 120 per share.
5 shs Confidence at 32 per share.
$5,000 Legal Tender Notes at 77c, s 3.

AFTERNOON SESSION.

2 shs Chollar-Potosi at 312 per foot, b 3.
5 shs Chollar-Potosi at 315 per foot, b 15.
8 shs Chollar-Potosi at 313 per foot.
4 shs Chollar-Potosi at 321 per foot, b 30.
5 shs Chollar-Potosi at 312½ per ft.
11 shs Chollar-Potosi at 312 por foot.
8¹ shs Ophir at 380 per foot, b 30.
24 shs Ophir at 372½ per foot, s 3.
48 shs Ophir at 370 per foot.
12 shs Ophir at 367½ per foot.
4 shs Yellow Jacket at 640 per foot.
1 sh Yellow Jacket at 635 per foot.
5 shs Yellow Jacket at 650 per foot, b 30.
4 shs Yellow Jacket at 630 per foot, s 30.
2 shs Yellow Jacket at 635 per ft, s 3.
3 shs Yellow Jacket at 645 per foot, b 15.
1 sh Yellow Jacket at 337½ per foot.
4 shs Belcher at 205 per foot.
1 sh Belcher at 207½ per foot
2 shs Belcher at 210 per foot.
1 sh Belcher at 215 per foot, b 30.
1 sh Belcher at 217½ per foot, b 30.
5 shs Bullion at 62½ per share, s 3.
5 shs Bullion at 65 per share.
20 shs Overman at 51 per share.
10 shs Overman at 55 per sh, b 30.
15 shs Overman at 52 per sh, s 3.
10 shs Overman at 54 per ft, b 30.
5 shs Overman at 52½, s 30.
20 shs Overmon at 52, s 30.
35 shs Overman at 53 per sbaro.
5 shs Overman at 52½.
15 shs Overman at 56, b 30.
10 shs N B & Mission R. R. at 52 per ct.
50 shs Spring Valley Water at 69¼ per ct.
Amount of sales.....$176,428 00

Thursday, May 24.

156 shs Ophir at 365@360 per ah, c.
60 shs Ophir at 350@360 per foot, s 3.
36 shs Ophir at 370 per sh.
24 shs Ophir at 370 per sh, s 10.
24 shs Ophir at 372½ per share.
24 shs Ophir at 375 per sh, s 5.
72 shs Ophir at 375 per share.
12 shs Ophir at 370 per sh, s 15.
48 shs Ophir at 360 per share.
2 shs Chollar-Potosi at 310 per foot, s 3.
5 shs Chollar-Potosi at 308 per foot.
5 shs Chollar-Potosi at 315 per foot, b 30.
5 shs Chollar-Potosi at 305 per foot.
4 shs Gould & Curry at 808 por foot.
24 shs Gould & Curry at 770@730 per foot.
1 sh Belcher at 215 per foot.
2 shs Belcher at 220@215 per foot, b 30.
1 sb Belcber at 210 per foot.
2 shs Belcher at 217½00 per foot, b 30.
3 shs Belcher at 205 per foot, b 3.
3 shs Belcher at 200 per ft.
2 shs Yellow Jacket at 640 per foot.
1 sh Yellow Jacket at 640 per foot, c.
1 sh Yellow Jacket at 650 per foot, b 20.
11 shs Yellow Jacket at 650@652 per ft. b 30
8 shs Yellow Jacket at 630 per foot, s 3.
28 shs Imperial at 126@130 per share.
8 shs Imperial at 125 per share, s 3.
5 shs Imperial at 125½ per share.
5 shs Imperial at 125 per share, s 10.
5 shs Imperial at 125 per share, s 5.
15 shs Overman, at 52@50 pr sh.
5 shs Overman at 50 per share, s 10.
10 shs Overman at 49@48½ per share, s 30.
25 shs Overman at 50@49 per share, b 30.
25 shs Overmon at 48½@50 per sh, b 10.
20 shs Overmon at 47½@46 per sh, s 30.
5 shs Overman at 51 per sh, b 30.
10 shs Bullion at 75 per share, s 3.
5 shs Bullion at 78 per share, b 30.
5 shs Confidence at 30 per share.
10 shs Golden Rule at 20 per share.
$5,000 U.S. 7 3-10 Bonds, June issue, at 77¼ p ct
$5,000 at 76½c.
$15,000 at 76¼c, s 3.
$10,000 at 76c.
$5,000 at 76½cc.
$5,000 at 76¼c.
$5,000 Legal Tender Notes at 74½c.

AFTERNOON SESSION.

5 shs Belcher at 200 per foot, b 30.
3 shs Belcher at 195 per foot, s 3.
4 shs Belcher at 195 per foot.
1 shs Belcher at 192½ per foot.
40 shs Daney at 10¼ per foot.
4 shs Chollar-Potosi at 300 pr ft
1 sh Yellow Jacket at 625 per foot.
1 sh Yellow Jacket at 620 per ft.
3 shs Yellow Jacket at 610 per foot.
5 shs Yellow Jacket at 615 per foot.
5 shs Yellow Jacket at 610 pr ft, s 30.
1 sh Yellow Jacket at 615 per foot, s 5.
1 sh Yellow Jacket at 615 per foot, b 10.
2 shs Yellow Jacket at 5?2½ per foot, s 30.
1 sh Yellow Jacket at 612½ per foot, s 5
1 sh Yellow Jacket at 612½ per foot, s 3.
1 sh Yellow Jacket at 625 per foot, b 30.
1 sh Yellow Jacket at 610, s 30.
1 sh Yellow Jacket at 520 per foot, b 30.
15 shs Imperial at 125 per share, s 30.
11 shs Imperial at 125 per share.
5 shs Imperial at 124 per share.
3 shs Imperial at 124 per share, s 10.
5 shs Overman at 49½ per share.
5 shs Overman at 47½ per share, b 10
5 shs Overman at 46, s 30.
10 shs Exchequer at 7½ per share.
$10,000 Legal Tender Notes at 74 pr ct, s 30.
$16,000 Legal Tender Notes at 74¼ pr ct.
$5,000 Legal Tender Notes at 74½ pr ct. s 30
$ 5,000 Legal Tender Notes at 74½c, s 10.
Amount of sales.....$210,160 00

Friday, May 25.

301 shs Ophir at 350@340 per foot.
96 shs Ophir at 355@350 per foot.
48 shs Ophir at 350 per foot, s 30.
180 shs Ophir at 347½@352½ per foot.
24 shs Ophir at 350 per foot, s 5.
24 shs Chollar-Potosi at 300@295 per ft.
2 sh Chollar-Potosi at 307½ per foot, b 30.
8 shs Yellow Jacket at 610@590 per ft.
2 shs Yellow Jacket at 600@605 pr it, b 30.
2 shs Yellow Jacket at 595 per foot
2 shs Hale & Norcross at 960 per foot.
45 shs Imperial at 124@124 per share.
8 shs Crown Point at 950 per ft, b 30@30.
8 shs Gould & Curry at 730 per foot.
5 shs Savage at 900@860 per foot.
1 sh Savage of 810 per foot, s 30.
2 shs Empire M & M 770. at 160 per sh.
7 shs Belcher at 180@175 per foot.
10 shs Confidence at 30½ per share.
60 sh Overman ot 47@40 pr sh
40 shs Daney at 10½ per foot.
$12,000 Legal Tender Notes at 75c, s 10.
Amount of sales.....$ 82,120 00

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, May 26, 1866.

There is no apparent diminution in the amount of capital offering for loan purposes, but the demand on such securities as the bankers are willing to accept, is lighter than usual. Business requirements are moderate, and good mercantile paper is readily taken at 1 ℔ cent. ℔ month. Some important loans have been made upon first class collateral at 10 ℔ cent. ℔ annum, and even more favorable terms to the borrower are reported. This decline in rates of interest has been anticipated for some time past, and will exert a stimulating influence upon many interests in this city and throughout this interior. It is not only an evidence of the faith capitalists have in the permanency and safety of all our interests, but shows there is abundance of means at hand for the prosecution of every legitimate enterprise.

Receipts of treasure from domestic sources since the date of our last reference, amounted to $900,000; making an aggregate of $3,500,000 thus far during the current month.

There has been some improvement in the demand for Bullion this week, and a large shipment is anticipated next steamer day. Gold bars are selling at about $850, and silver has risen to 1¼@1¾ ℔ cent. premium for bars of average fineness.

Legal Tender Notes declined from 77½c to 74½c; then sold at 75c—closing at 74¾c bid; 75c asked. Large sales of 7-30's, June issue, were made at 77½@76½—closing at 77¾ bid. Latest advices from the East quote gold at 137, with a still further rise probable, in view of the financial crisis abroad and the continuation of large shipments of specie from New York.

Miscellaneous Bonds and Shares (other than mining) have been exceedingly quiet; but with the exception of City Railroad Stocks, are strongly held at higher rates. North Beach and Missionfell to $50 per share; rallied to $52, and is now held at $54. Omnibus Railroad is offered at $55. San Francisco Gas is inquired for at $110 per share; and Spring Valley Water was sold at $69.50 per shars. Very considerable private sales of City and County 7's of 1864 and 1865, have been made at 83@85c.

The Mining Share Market experienced a fresh stampede early in the week, and nearly every Stock declined materially from prices ruling previously. A slight rally took place on Wednesday, but since then this improvement has not been maintained, except in a very few instances. Little or no attention seems to be paid to the intrinsic value of some claims, and until a better feeling is inaugurated, no permanent improvement is likely to take place. It is, therefore, useless to speculate upon the causes which have led to the present demoralization of the market, or to predict what the future may evoke.

Crown Point is dull and inactive at $950—buyer 20 and 30. Some 32 feet of the shaft has been re-timbered and the new reels have been at work since the 20th inst. During the recent temporary suspension of active operations in the mine, most of the mills employed by the company were kept at work, and the receipts of bullion this month will probably equal those of April. Some 70 tons of first-class ore, worth from $400 to $450 per ton, will be treated during the current month.

Savage declined yesterday from $900 to $840. Advices continue favorable, and receipts of bullion since 1st inst., have amounted to $89,000. The average product of the mine, mainly from the 6th level, is now about 80 tons per day. The last crushing of 241 tons of ors at the Savage Mill, yielded $43.73 per ton.

Hals & Norcross has not been subjected to the decline incident to nearly all other Stocks, being steadily maintained within a rangs of $955@970, closing at $960. This mine is producing, daily, about 70 tons of ore, and in raising up, its quality is said to show some improvement. The stopes from the lower level have been extended to the 14th floor—a hight of about 80 feet.

Gould & Curry is in less favor, declining from $850 to $730; then offered at $775, and closing at $725 bid. The upper works still disclose a very considerable body of good ore, and the yield of bullion, thus far during the current month, is fully up to the usual average. The water in the different drifts, from the lower stations, has been subdued, and further explorations can now be made without difficulty. The company have a surplus at their credit of about $84,000.

Yellow Jacket steadily declined from $730 to $600; rallied to $645; dropped to $630, and sold, yesterday, at $610@595. The yield of bullion in April amounted to $84,827.28; other receipts were $5,-892.51, and the balance at the credit of the company on the 1st of that month was $11,237.66; making an aggregate of $101,957.45. The disbursements for current expenses, during the same period, amounted to $96,619.43, leaving a balance on hand, 30th inst., of $5,338.02. The company's mills crushed in April 2,289 tons of ore, yielding $51,103.77—an average of $22.31 ℔ ton; and 150 tons third-class, averaging $15 ℔ ton. Outside mills reduced 1,718 tons of second-class, producing $31,473.51, or an average of $18.31 ℔ ton. The cost of working 2,113 tons of ors at the Yellow Jacket Mill was $11.42¼ ℔ ton. During the first two weeks of May, 1,940 tons of ore were extracted from the mine and the yield of bullion amounted to $33,929.

Ophir has been depressed, and some 350 feet were dealt in, declining from $425 to $350, rallying to $380, receding to $365, and selling yesterday at $350@377½. Latest telegraphic advices represent the lower level south, as rather more favorable, and other portions still unpromising. Receipts of bullion thus far during the current month have been as follows: From the Woodworth Mill, $31,956; Reduction Works, $30,000, and from Land's Mill, $5,200; in all, $67,156.

Chollar-Potosi has been active at lower rates, and nearly 500 feet were sold, receding from $330 to $295, rallying to $321, buyer 30, dropping to $295, and then selling at $293@296. The different stations are said to be looking well, and from the Belvidere ground it is thought that a "large amount of good ore can now be taken." In drifting from new shaft clay is still met with, and quartz may soon be reached. During the week ending 19th inst., 1,300 tons of ore were sent to Custom Mills.

Belcher fell from $270 to $185, rose to $215, receded to $195, and sold yesterday at $175@192½. Alpha met with trifling sales at $190—assessment not delinquent. Empire Mill & Mining is well held at the close at about $165 ℔ share.

Imperial declined from $128 to $112½, rose to $130, receded to $124, and sold yesterday at $124@123. The drift from the old shaft toward the 7th level is in some 180 feet. Receipts of bullion for the first half of this month, were $28,878.41.

Overman fell from $66 to $49, rallied to $53, receded to $47½, and sold yesterday at $40@30. Bullion declined from $77½ to $53, rallied to $75—assessment delinquent—and sold at the close at $76. Confidence has been sold at $32@30, and Exchequer at $8¼@7½.

The total recorded sales of Stocks, Legal Tender Notes and Bonds, since Saturday last, amounted to $843,409.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE
Assurance, Montorey co, Cal,	25c	May 11	May 29
Alpha, Gold Hill,	$50	May 25	June 25
Alameda Coal M Co,	$2	June 27	July 21
Boston Copper,	50c	June 22	July 18
Batopilas, Chihuaha, Mex.,	25c	May 10	May 28
Belcher,	$60	April 30	May 30
Belcher, Baldwin & Abernathie Co,	$20	April 30	May 30
Bullion,			$10 00
Barreteros, Sonnlos, Mex.,	$5	May 10	May 28
Bunker Hill, El Dorado co.,	$1	May 23	June 11
Bacon Mill,		Meeting June 5	
Crocket Con., Esmeraldo co,	$1	June 23	July 10
Capitola, Santa Clara co., Cal.,	10c	June 12	July 2
Capitola,	10c	June 12	July 2
Cole, Silver,	$1	June 11	July 5
Crown Point,		Annual Meeting June 4	
Crown Point,		Dividend	
Dios Padre, Alamos, Mex.,	$3	June 5	June 23
Daney,	50c	May 12	June 9
Diamond Cop., Del Norte co, Cal.,	$2	May 26	June 21
Eagle, Austin, Nev.,	$1	June 16	July 6
Evoca Cons, Cop., Del Norte co., Cal.,	25c	June 6	July 1
Geo. Washington, Alpine co., Cal.,	$1.00	June 9	June 26
Great Basin, Humboldt co., Nev.,	9c	June 12	July 2
Green, Storey co., Nev,		Annual Meeting June 6	
Gold Hill, Storey co., Nev.,	$1	June 15	July 10
L. X. L.,	$1.50	May 17	June 7
Imperial,		Dividend	
Independent, Coal,		Meeting June 1	
Kentucky,	$1	May 8	May 30
Keokuk, Contra Costa co., Cal.,	10c	May 21	June 11
Leland, Arizona,	25c	June 30	July 16
Lady of the Lake, Arizona,	25c	June 30	July 16
Lady Franklin, Alpine co., Cal.,	25c	May 7	June 5
Lady Bell, Low Divide, Cal,		June 9	June 28
La Victoire,	$1	May 4	May 21
Mina Rica de las Flores,	$1	June 19	July 16
Maria, Chihuaha, Mex.,	$2	May 7	May 28
Moroing Star,		Meeting June 21	
North American Tin, Durango, Mex.,	40c	June 22	July 9
Nuestra Sra de Guadelope, Durango, Mex.,	$1	June 2	June 20
North Star, Lander co., Nev.,	$25	May 14	June 6
Ophir of the Colorado, Arizona,	25c	June 26	July 16
Old Colony, Austin, Nev.,	$3	June 18	July 9
Providence,		Annual Meeting June 20	
Rippon, Alpine co., Cal.,	$1	June 11	June 26
Refugio, Chihuahua, Mex.,	$2½	May 21	June 6
Sapphire, Storey co., Nev.,	$5	June 28	July 17
Silver Queen, Lander co., Nev.,	$1	June 23	July 23
Simpson & Bessell, Carson Valley,	$1	June 9	June 29
Sierra Valley, Plumas co., Cal.,	$1	May 31	June 18
Sweet Vengeance,	$1	May 11	May 30
Siskiyou,	$1.50	Apri 23	May 25
Salambo Copper,	$1	May 8	May 29
Sierra Nevada, Storey co, Nev.,	$4	May 7	June 6
San Marcial S. M. Co., Mex,		Meeting May	28
Tschattucup S. M Co., Arizona,		Anonal Meeting June 1	
United States, Storey co., Nev.,	50c	May 26	June 18
Whitman, Lyon co., Nev,		Anoual Meeting Juoe 5	
Yankee Blade,	$25	June 18	July 9

*Those marked with an asterisk (*) are advertised in this Journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 76½	$ 77
Gov. Legal Tender Notes	75	75¼
State Bonds, 7 ₱ cent	84	85
San Francisco 10 ₱ cent	..	..
Sao Francisco Bnds, 1855, 6 ₱ cent	..	..
San Francisco Bonds, 1858, 6 ₱ cent	72	73
Sacramento City Bonds, 6 ₱ cent	18	..
Sacramento County Bonds, 6 ₱ cent	58	65
Marysville Bonds, 10 ₱ cent	75	82
Stockton Bonds, 10 ₱ cent	80	85
Yuba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	70	80
California Navigation Co	60	61
State Telegraph Stock	33	35
San Francisco Gas Co	108	110
Sacramento Gas Co	..	75
Spring Valley Water Co	68	69
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	50	65
Central Railroad Co	..	..
North Beach and Mission	62	68
MINING STOCKS.		
Alpha	$320	$330
Ballieu, G. H	70	75
Ophir	350	355
Gould & Curry	725	735
Empire M. & M. Co	165	170
Savage	840	850
Cholar-Potosi	295	300
Bale & Norcross	950	975
Wilto & Murphy	....	....
Sierra Nevada	6¼	9
Yellow Jacket	595	600
Overman	40	45
Crown Point	950	960
Antelope	....	....
Emeralda	1	6
Real del Monte	....	....
Buckeye	....	....
Dick Sides	....	....
Imperial	124	125
Ætna	....	....
Cedar Hill Tunnel	....	....
Wide West	....	....
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 00	@	6 50
Do Superfine	5 50	@	6 00
Corn Meal, ₱ 100 lb		@	3 50
Wheat, ₱ 100 lb	1 60	@	1 75
Oats, choice, ₱ 100 lb	1 90	@	2 05
Barley, ₱ 100 lb	80	@	95
Beans, ₱ 100 lb	3 50	@	4 00
Potatoes, ₱ 100 lb	60	@	1 15
Hay, ₱ ton	8 00	@	16 00
Live Oak Wood, ₱ cord	8 00	@	10 00
Beef, on foot, ₱ lb	6	@	7
Beef, extra, dressed, ₱ lb	12½	@	15
Sheep, on foot	1 00	@	2 00
Hogs, on foot, ₱ lb	8	@	9
Hogs, dressed, ₱ lb	12	@	13
Groceries, Etc.			
Sugar, crushed, ₱ lb	--	@	15
Do China	10	@	12½
Coffee, Costa Rica, ₱ lb	—	@	24
Do Rio	23½	@	24
Tea, Japan, ₱ lb	60	@	1 00
Do Green	70	@	1 00
Hawaiian Rice, ₱ lb	9	@	10
China do	7	@	8
Coal Oil, ₱ gal	75	@	80
Candles, ₱ lb	22	@	24
Ranch Butter, ₱ lb	37½	@	40
Isthmus do	35	@	45
Cheese, California, ₱ lb	14	@	17
Eggs, ₱ doz	40	@	60
Lard, ₱ lb	20	@	21
Ham and Bacon, ₱ lb	—	@	22½
Shoulders	20	@	22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45	@	50
do pickled ₱ lb	38	@	40
do Oregon	35	@	—
do New York, ₱ lb	50	@	—
Cheese, ₱ lb	25	@	—
Honey, ₱ lb	30	@	40
Eggs, ₱ doz	—	@	50
Lard, ₱ lb	25	@	—
Hams and Bacon, ₱ lb	24	@	—
Cranberries, ₱ gal	75	@	1 00
Potatoes, old, ₱ lb	1	@	2
do Irish, ₱ lb	2	@	3
Tomatoes, ₱ lb	—	@	—
Onions, ₱ lb	6	@	8
Apples, No. 1, ₱ lb	3	@	8
Pears, table ₱ lb	8	@	25
Plums, dried, ₱ lb	20	@	22
Peaches, dried, ₱ lb	16	@	—
Oranges, ₱ doz	50	@	—
Lemons, ₱ doz	75	@	—
Chickens, apiece	87	@	1 12
Soap—Pale & C. O	11	@	12
Castile	14	@	15

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, May 12, 1860.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1¼c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@1¾c ₱ lb; Plate 1¾c ₱ lb; Pipe, 1¾c ₱ lb; Galvanized 2¼c ₱ lb.

Scotch and English Pig ₱ ton	60	@	65
American Pig ₱ ton	55	@	60
Refined Bar, bad assortment, ₱ lb	3	@	—
Refined Bar, good assortment, ₱ lb	3½	@	—
Boiler No. 1 to 4	4	@	5
Plate No. 6 to 9	4½	@	6
Sheet No. 10 to 13	4	@	—
Sheet No. 14 to 20	5	@	—
Sheet No. 24 to 27	5½	@	—

COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb

Sheathing ₱ lb	34	@	36
Sheathing, Old	29	@	30
Sheathing, Yellow	30	@	32
Sheathing, Old Yellow	12	@	13
Bolts	13	@	16
Composition Nails	30	@	32

TIN PLATES.—Duty: 2½c ₱ lb.

Plates, Charcoal, IX ₱ box	16	@	18
Plates, I C Charcoal	14	@	15
Roofing Plates	12	@	13
Banca Tin Slabs, ₱ lb	30	@	35
STEEL.—English Cast Steel, ₱ lb	12½	@	16
QUICKSILVER.—Per lb	—	@	55
For export	65	@	—
ZINC.—Sheets ₱ lb	9½	@	10
LEAD.—Pig ₱ lb	8	@	—
Sheet	10	@	12
Pipe	10	@	12
Bar	10	@	11
BORAX—California, ₱ lb	20	@	23

CALIFORNIA BUILDING AND LOAN SOCIETY

Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING AND LOAN SOCIETY, announce to the public the removal of their business to their

NEW BANKING HOUSE,

California Street, one Door from Sansome.

LOANS.

The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
Second—The Erection of Houses.
Third—The Erection of Manufactories.
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

MONTHLY DEPOSITS.

ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

CURRENT ACCOUNTS.

HALF PER CENT PER MONTH will be allowed on the daily balances to credit of Current Banking Accounts—the same to be ascertained and credited monthly.

REMITTANCES FROM THE COUNTRY

PROMPTLY ACKNOWLEDGED.

INTEREST on all sums commences from the day of deposit.

DEPOSITS of any amount received, from FIVE DOLLARS upwards.

OFFICE HOURS—9 1-2 A.M. to 3 1-2 P M. daily.
SATURDAY EVENINGS from 6 1-2 to 9 o'clock.

THOMAS MOONEY, President.
W. G. WEIR,
SAMUEL CRIM,
ROBERT LEWELLYN,
JOHN DUNN,
C. A. JANKE,
A. ROSENFIELD,
J. W. MCCORMICK,
L. R TOWNSEND, Secretary.

16v12-3m

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News,

JOHN TAYLOR & CO.

IMPORTERS,

AND DEALERS IN

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERT LING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco March 6, 1865. 11v10-1f

WM. H. KEITH & CO.,

Chemists and Apothecaries,

PROPRIETORS AND MANUFACTURERS OF

WM. H. KEITH & CO'S WINE OF PEPSINE, OR RENNET WINE, a new and efficacious remedy for Dyspepsia, Gastralgia, etc. WM. H. KEITH & CO'S GLUCOLEIN, a new and valuable compound of Cod Liver Oil, put up in glass jars. WM. H KEITH & CO'S LEMON APERIENT, or Purgative Lemonade, an agreeable, cooling and native Beverage, or mild laxative, as required. WM. H. KEITH & CO'S SAPONACEOUS TOOTH POWDER. DEVINE'S PITCH LOZENGES, for the cure of coughs and colds. Wm. H. Keith & Co's Florentine Tooth Wash. Wm. H. Keith & Co's Granula Effervescent Citrate of Magnesia. Wm. H. Keith & Co's Rosemary and Castor Oil Hair Invigorator.

WM. H. KEITH & Co. being in frequent communication with Eastern and European markets, are continually renewing their stock of Pure Drugs, Rare Chemicals, Fancy Goods, and Toilet Articles. Pure Oils, etc They also give special attention to replenishing ship medicine chests.

Also, just received, a large and well-selected invoice of HERSTEIN'S CELEBRATED INSTRUMENTS, consisting in part of Amputating and Obstetric sets, Pocket Cases, etc.

Physicians and others at a distance ordering goods from us, can depend upon having their orders filled with the same regard to quality and price, as though obtained in person, and we give particular attention to packing and forwarding the same.

WM. H. KEITH CO.,

Apothecaries' Hall, No. 521 Montgomery street,
15v12ly Between Clay and Commercial, San Francisco.

INTERNATIONAL HOTEL,

K Street, between Third and Fourth,

SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

BRANNAN HOUSE,

(Formerly Vernon,)

J street, between Front and Second streets,

SACRAMENTO.

FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m **MRS. J. DUNN, Proprietress.**

WHAT CHEER HOUSE,

SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m **A. J. SENATZ, Proprietor.**

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,

No. 602 Montgomery street, San Francisco.

EXCLUSIVE AGENT

—FOR THE—

AMERICAN WATCH FACTORY.

A large assortment of these

Superior Watches,

In Gold and Silver Cases,

Constantly on hand, and sold at Factory prices. Also,

ENGLISH AND SWISS WATCHES.

Imported directly from the Manufacturers.

The American Company are now making

VERY FINE WATCHES FOR LADIES.

☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

Postage.—The postage on the MINING AND SCIENTIFIC PRESS to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents.

Pacific Mail Steamship Co's

THROUGH LINE TO NEW YORK,

Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

On the **10th, 18th and 30th** of each month that has **30** days.

On the **10th, 19th** and **30th** of each month that has **31** days.

When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceding; when the 18th falls on Sunday, they will leave on Monday following.

Steamer leaving San Francisco on the 10th touches at Mazatlan. All touch at Acapulco.

Departures of 18th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 30th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

May 30th—SACRAMENTO. .....Capt. J. M. Cavarly,
Connecting with ARIZONA, Capt. Maury.

Cabin passengers berthed through. Baggage checked through—150 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

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It is filled with reliable, useful and interesting matter, and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will be found an invaluable aid.—[Nye County News

VOLUME TWELFTH.—The MINING AND SCIENTIFIC PRESS, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

Mining Summary.

CALIFORNIA.

Alpine County—

The Monitor *Gazette* of 19th inst., has the following items:

Ths Active S. M & T. Co., will soon commence operations. The Morning Star company are drifting on tbeir ledge, intending to open another chimney nhout 250 feet from the one first struck. They have less than 100 feet to make now to reach that chimney, and ars finding good ore all the way.

Work on ths American is prosecuted night and day. A flume bas been built to carry the creek water past the shaft, and the pumps now keep all clear.

The workmen on ths Eastern Slope tunnel, struck a body of water which caused a cave, and they have tbis week been busy timbering up preparatory to cutting tbrough into tbe ledgs.

Thc hig cave in the casing of the Winchester ledge bas been cleared out.

The Mullan G. & S. M. Co., broke ground on Thursday for a shaft to be sunk to a deptb of one hundred feet below the level of the tunnel at the point where tbe ledgs was cut. At tbis point, only thirty feet below the surface, ore is found of good quality.

From ths Silver Mountain *Bulletin* of May 12th, ws condense the following:

Work is progressing rapidly in tbe tunnel of the California & Illinois company, in Raymond district. Ventilating pipes have been introduced.

Doct. Pilkington, as agent for an Eastern company, is about commencing a double track tunnel, for the purpose of cutting the Desperado and Atlantic ledges.

The ledgs in the Pennsylvania company's claim is now ten feet in thickness, and has a splendid gouge—indicating a perfect ledge. They are now running in the easing on the east side, and parallel with the ledge, and will cut it after running some thirty-five feet further.

Tbs Washington company's mine is still closed to tbe public. The editor of the *Bulletin* says, however, "we are informed that a short time only will elapse before tbe world will know all."

One thousand feet in the Honsst John lode, situated in Scandinavian Cañon, Silvsr Mountain district, was sold a few days ago to a company of New York capitalists. Tbe claim is named the Atlantic. Work has already been commenced. Several well known ledges will be crossed by the projected tunnel of 2,500 feet. Specimens from each of these will he sent to New York. The editor augurs the commencement of a new era in mining operations in Silver Mountain district.

Amador County—

Tbe *Dispatch* of 19th inst., says: Coney & Co. on last Friday evening started their mill with sixteen stamps with four of Prater's concentrators. Ths parties reported to have purchased this company's interest, several weeks ago, failed to comply with the terms of their agreement.

From the *Ledger* we learn that the Oak Hill copper mining company—first sonth extension of the Newton—have resumed work with good prospects.

The rock taken from the Kennedy lode, near town, is now heing crushed at the Coney mill, and pays handsomely.

The same paper says: The auriferous talc mines of Amador are likely to prove a valuable investment. The north extensions of the original loeations, the Mount Echo and Mohawk, bave been sunk to a depth of twenty-two lset and show a lode of pay rock of an average width of ten feet. Tbe last six or eight lset sbowing a decided improvement in the quality of the ore, nnd much free gold is visible—not unfrequently being found in pieces of from one to several dollars in value.

Butte County—

It is said tbat a San Francisco company is negotiating with parties owning extensive claims on the Smartsville road, nearly opposite the Empire Ranch. To obtain a fall they propose to construct a tunnel seventeen hundred feet in length, at an estimated cost of one hundred thousand dollars; and before the claim can he properly opened, an expenditure of at least $700,000 will be necessary. Tbe parties now owning ask $550,000.

Calaveras County—

The Copperopolis *Courier* of 12th inst., says: The quartz mill of Mr McGlynn, near San Andreas, is completed, and is now engaged on cement ground and tailings, which pay about ten dollars to the ton. William Irvine is about to erect a mill on bis claim at El Dorado. Tbe Kentuck company have resumed operations in their new shaft, with excellsnt prospects. At a depth of only twenty feet the lead is three feet wide and appsars to be rapidly consolidating.

Colusa County—

The *Sun* says: "Mr. Hardenhorg sent out this week a steam engine, to he used in horing for oil on bis claim on Bear creek. He has heen boring for several montbs by hand and the indications are eonsidered most flattering."

Fresno County—

A diseovery of a rich quartz vein was lntely made on the head of Coarse Gold gulch, about six miles southeast of McKeamer's store, in Fresno cnunty, by Colonel John Moss and William Sherer, of San Francisco. Maehinery is to be put up at once.

Lake County—

It is said that the company owning tbe borax mines in Lake county, have made extensive preparations for taking out large quantities of borax this season. This mineral is dug in erystalized masses from the bottom of Clear Lake, wbere it is deposited by springs. A large movnble cofler dam is sunk in eertain parts of the Lake, whieh, on beiug pumped dry, allows the workmen to seareh the muddy bottom for borax crystals.—*Grass Valley Union.*

Monterey County—

Tbe *Gazette* says that einnabar from n new mine recently discovered in the San Bonito mining district, on what is called tbe Clear Creek ledge, located about sixty-five miles from San Juan, is as rieh as any that was ever excavated at the New Almaden mines in Santa Clara county. The ledge is ahout eight feet wide. Operations will hs immediately put on foot for the erectiou of suitable smelting works, etc.

Nevada County—

The *Gazette* says: A crushing of ten tons of rock from the Mammoth ledge, situated a short distance abovs tbe Oriental mill, was eleaned up last Friday, and yielded within a fraction of ten dollars a ton. The free gold ouly was saved. The rock can be taken out, hauled and crushed in an ordinary mill, at an expense not excesding five dollars a ton.

We visited ths Camanche mine, yesterday, and were favorahly impressed, not only with tbe locntion of ths ledge but the appearance of the rock, and the prospeet ohtained therefrom. Tbe two ledges under that nams are between the Sneath & Clay ledge and the Mohawk, aud parallel with tbem.

The *Transcript* says:

The mills in Little York township are driving ahead night and day. The cement that is taken out is exceedingly rich. One of the companies clenned up last week $6,380; another $2.000; another $2,300, and others less, witb a glorious prospect ahead.

Mallory & Co., at You Bet, struck rich cement in their claims—richer than any found yet on the Blue Lead. It extends the entire length nnd depth of the lead as far as could be examined. Thousands of dollars of gold can be seen.

The Grass Valley *Union* bas the following items:

It is rumored that the celebrated Star Spangled Banner mine, situated at Nevada, has been sold to San Francisco parties for $100,000. This mine is one of the recent discoveries and is among the most promising in the county. We yesterday saw some very fine looking rock, taken from the Utah mine. It was hrilliant with particles of fine gold and sulphurets. The ledge shows a thickness of between eight and twelve inches. It is one of the most promising mines in this section.

A rich deposit of gold was struck on Saturday last in the Yellow Diamond ledge. This lead, says the *Transcript*, is located about three-quarters of a mile heyond Chapman's ranch, on Rock ravine, near Rush creek. It was first located in 1858, and a pocket was found from which $6,000 was takeu. A Nevadan invested some $400 in a lead a few weeks ago, and paid as much more for assessments. On Saturday last he was offered the sum of $13,000 for his interest. He refused to sell, helieving if he held on awhils he could get $20,000 or $30,000. The Eureka Company at Grass Valley, clenned up 2,300 ounces of gold, worth about $36,800. This was after a run of two weeks. The mine was recently sold for $400,000. The mill will be stopped for a time for the introduction of new and improved machinery.

The plncer claims in Nevada county are not worked out yet. The Manzanita Hill claim turned ont $1,200 last week, and the Lost Hill claim yielded at the first clean up $7,000. Many claims at Gold Flat are paying rich.

Excelsior.—The Dutch Flat *Enquirer* of May 17th, closes an article on this district thus:

No douht seems now to exist in tbe minds of any, as to thc extent, stability, and fabulous richness of the mines in this section. Noue of the quartz mills are running ut present, but will start up ahout the first of next month.

The Marysville *Appeal* of the 19th, says:

The rush of gold-hunters will hc unparalleled in this county. The city can bo built in a day, but the mines eannot be developed in a fourth of a century. Tbere will then he a eity of eonsumers, and how long will capital and enterprise withstand the pressure? Thers will be a permanent and flourishing city at ths Summit, but not tbis year. Ninety-nine of the one hundred of people wbo go thers will come away disappointed.

A correspondent of the *Stars and Stripes* says "ths first of June will be early enough to go." Tbere was four feet of snow at Meadow Laks on May 11tb. A Mr. Harrison, of San Franciseo, was daily besieged at bis hotel witb applications for the erection upon this or tbat mine, of his 20-stamp mill, now on tbe way.

Placer County—

The *Herald* bas theas items:

The ledge of the Good Friday Company, owned by Mr. Wahlgren and his partner, is only about two inches thick, hut very rich. One day last week, they took out $1,400 in one hour's labor. The Wells' quartz claim, four miles north of Auburn, has recently turned out some splendid rock. Although not rich in speeimens, gold bearing sulphursts and fine gold ore liberally disseminated through it. We are pleased to learn that there is a prospect of a mill going up on this ledge during the summer.

One ton of rock from the Taylor lead has been sent to San Francisco for trial. The shaft is now down between thirty and forty feet.

A sluice-robbing Indian was killed a few days ago, at Gold Run, by n torpedo, placed to prevent such depredations. Due notice had been published in the *Enquirer* that ths miners were resorting to this expedient. This had been effective as regards "white" robbsrs.

Sacramento County—

The *Union* has seen some fine specimens of ore from the Jersey Gold mine at White Rock. A shaft has been put into the mine to the depth of two hundred feet, and the ore taken from it has averaged $50 to thc ton. It is the intention of the owners to erect a mill at once.

Santa Clara County—

New Almaden.—There are now about thirteen hundred men engaged in mining, reducing ore, sorting, and other work, at the quicksilver mines. Tbe company have recently erected new and very extensive reduction works on an approved plan.

Sierra County—

A correspondent of the *Union*, writing from Downieville May 13th, says:

Numerous gold bearing ledges have heen taken up and recorded, and some prospected proved good. A New York capitalist has invested in one on Mount Pindus. * * A ledge of supposed vast richness, containing gold, silver and copper, has been located half way on the line between here and Meadow Lake. It assays, in gold and silver, $48 to the ton of 2,000 pounds, and the copper is a big item. The gold is contained in a yellow sulphuret of copper.

The miners in Star Valley District had a meeting on May 10th, for the purpose of altering the By-Laws.

Tulare County—

Tbe *Times* of May 18th, says:

We receive from all parts of the neighboriug mining regions the most encouraging accounts. Nearly all the mills at Clear Creek ars at work witb profitahle results, and tbe mines continue to improve as they are developed. Bigler & Co.'s mill is nearly completed. The Joe Walker lead is proving extremely rich. The shaft is down 64 feet, and the rock improves continually. The new district known as the Piute is attracting much attention. A sale of one lead, unopened, is reported for $50,000. Tbe old Mammotb lead, near Kernville, famous some years ago for its extent and richness, bas been purchased by a San Francisco company, who are prosecuting the work with energy and system. Kelso cañon is heginning to attract capital and work. One mill is already up, and another under way, if not already laid down. The Long Tom is reported to exceed anything yet discovered, as to the size of the lead and the richness of the rock. The vein is six feet thick, and permeated with free gold, plain to the naked eye, throughout.

The Inyo correspondent of the Visalia *Delta* says:

Prospects brigbten daily, and our miners and mill owners are in high spirits. Captain Paul's mill will run next week. The New York Silver Lead company are getting out wonderfully rich rock. Mr. Dorr's New York company's mill has just passed here from Los Angeles, and another large mill is on the way for the same locality. The Oro Fino company will soon have a fine 20-stamp mill in operation. The Fish Spring district is coming ont, some of their rock recently worked giving $173 per ton.

Tuolumne County—

A correspondent of the *Courier*, writing from Uniontown, Sugar Pine District, May 15tb, says that Comstock's mill will commence work again in a day or two. The Waterhouse placer elaim cleaned up 29 ounces last week. The Excelsior commenced work yesterday; tbey are down 380 feet, and will go 200 deeper. The last clean-up of the Mount Vernon sbowed an average of over $200 to the ton. The sbaft is 200 feet eeep. Thirty men are at work.

Tbe town of Sonorn is "looking up."

NEVADA.

Dayton—

The Lyon county *Sentinel* of 19th instant says—

Tbe prospects for the ensuing summer in Dayton ars very good. Our mills are all in operation, and every ons desiring it ean procure remunerative employment. Mr. Henley was about to visit the East for the purpose of disposing of his mineralogical eabinet, spoken of by tbe *Sentinel* as being the most valuable and complete in the State, containing over fifteen thousand specimens.

Reese River—

A correspondent of ths *Reveille*, writing from a new district in Nye County, called Silver Bend, says:

Timber is very nbundant, but water rather scarce. The mines are very nccessible; teams can drive to the ore. The veins, for richness and size surpass anything yet disecvered. I have had nn assay from one of them whieh yielded $1,100 and over. I havo had rock worked from another which yielded by mill working $2,600.

The same paper of 16th inst., says:

We learn that tbe Providential vein is improving in appearance and character as depth is attained. An assay of a portion of its basest ore, just made by J. R. Murphy, of the National Bank assay offics, yielded $49 of silver.

The fins new 20-stamp mill of the Manhattan Company was set in motion yesterday. It is not yet completed, but lacks its improved furnacss and new amalgumating room, which are in course of construetion.

We learn that the bonds obtained hy means of the mortgage on the property of the Keystone S. M. Co., had been convcrted into funds to meet all liahilities here, as well as to prosecute work on tbe mines belonging to the company. Ws nre informed that richer ore than ever before found in the vein is being exhibited in the Metacom, and the splendid develoments in the Yankee Blade last week, all combine to insure a prosperous future for tbat section.

Snmc, of 19th, speaks of a communication received from ths Superintendent of the Sterling Company's Mill, at Kingston, and says:

The writer gives the result of the working nt that mill of eight tons of ore from the Brown ledge in that district, as follows: Silver, $334.76; gold, $57.64; total, $392.40; or an average yield in gold and silver per ton of the value of $49.04. * * And he concludes by stating on the authority of one of tbe owners of the Brown ledge, that tbere are over 300 tons of the same quality of orc on hand, and an extensive quantity in sight.

From the Nye County *News*, of the 12th inst., ws condense the following:

Assays sbown to us from the croppings of three ledges in Crescent City Canyon, are, respsctively, per ton: Flershiem, $178.47; Belvidcre, $154.79; Galena, $18.95. These ledges average over five feet in widtb, and were located by M. T. Joice, for himself, Hyman, and others.

The Mt. Vernon Co., Mammoth district, are sinking a shaft seven by nine feet in the clear. Some four hundred odd feet east of the shaft, a tunnel is bsing run, which will intersect it at a great depth. The tunnel is already in over one hundred feet, and it is prohnble that it will be used chiefly for drainage. Gen. Rosecrans is the general agent for tbe Co, and is expected to arrive in a few days. The Succor mill is running steadily, and gives good satisfaction.

Correspondence of same paper, from Weston, in Mammoth district, says of the Branch Mint lode:

It is a hlind lode, two feet wide, with eight or ten inches of as rich ore as any yet found in Mammoth. It was acoidentally discovered in working the Erie, a few days since, and has heen opened to a depth of only three feet hy eight feet in length, from which small space several tons of as rich looking ore as Nevada can produce, has been extracted.

Of tbc Erie, in the same series, (Ontario):

It is of great power, heing over six feet from wall to wall, with three and a half feet of very rich ore.

Correspondence of same, from Washington, Nye county, May 10th, says:

Business is beginning to look up with us. I

am creditably informed that a large force of workmen will soon be put on the New Hope mine.

Active preparations will soon be commenced on the series of ledges located for the Atlantic Co., of which Gen. Rosecrans is the managing head.

A 20 stamp mill is to be erected at Washington.

Esmeralda—

The *Union* of the 19th inst., has the following: The news from Bodie is cheering. The last clean-up of the Empire company was $9,000, and from eighty-five tons of Homestake ore, the yield was $8,000. The Osceola, one of the ledges of the Empire company, is improving. The ledge is five feet thick at a depth of two hundred feet from the surface, and the ore is of a very fine quality. The Golden Age & Empire company have let a contract to sink their shaft one hundred feet, provided the contractors do not sooner come upon water in sufficient quantities to stop them from working. As soon as the water begins to interfere with the work, machinery will be placed upon the mine to pump out the water and hoist the rock. Mr. Taylor, the Superintendent of the Philadelphia company, has let a contract to sink the shaft lately started at the mouth of the Discovery tunnel fifty feet deeper. The machinery for the company is expected to arrive soon from San Francisco.

A Columbus correspondent of the *Enterprise* of May 2d, says:

The mines extend over an area of about twelve miles in length by eight or ten in width. The pay ledges, though not extremely large, are well defined. The Baluarta ledge has been opened by sinking an incline on the ledge some ten or twelve feet, which at that depth shows a well defined lode of pay ore, about four feet in thickness. The Plata Verde Company have run a cut to their ledge, which they have just reached, and found rich ore.

The Servia has an incline down 30 feet.

Humboldt—

The *Register* of 12th inst., says:

Bill Tally and Garrett Tormay have been drifting in a ledge in old Trinity district. In a little less than two weeks they got out 500 pounds of ore which assays $4,000 to the ton.

ARIZONA.

It is said that forty men are already enrolled towards the party of one hundred which is being raised in San Francisco for the expedition to the White Mountains, in the interior of Arizona. The route proposed is that via Los Angeles, or San Diego, to Fort Yuma; thence via the Pimo Villages to destination. The Austin *Reville* says that a company of thirty men from the Reese River region will join the expedition at Collville or Prescott.

IDAHO.

The Idaho City correspondent of the Oakland *News*, under date of April 22d, says:

The Spring, though cold and stormy, is a month earlier for mining purposes than last year. Mining operations are now in full blast, and are being vigorously pushed in all parts of the basin. The hillsides and bars bristle with flumes pouring immense quantities of tailings into the creeks which have been worked out. The work goes on night and day, and the thousands of camp-fires on hills and bars at night present a magnificent appearance. We hear of large returns from a number of claims, among them Mason and Hemphill's, which cleaned out $4,000 in two weeks' run. Others have gone beyond that figure, while I hear of a number which have failed and run behind large amounts. Mining is a lottery in which all do not win prizes. Wages this Spring is $5 and $6 per day, and board $12 per week. Good hands are rather scarce, but I should judge that there is plenty of men in the basin to do all the work. Quartz interests here in the basin are completely dead, having received a severe check by the failure of two of the most promising ledges—the Astor and Chickahominy. They were purchased by the New York company over a year ago, and after erecting five mills, and other works, at a heavy outlay of capital, now find they have nothing. Idaho City does not present as lively and bustling an appearance as it formerly has. The large crowds that could be seen on the street corners at most any time, have mostly disappeared, and empty houses and stores are plenty, with notices posted on them for sale. But those who are stopping here are doing full as well as formerly. The Blackfoot excitement, and the unfavorable season last year for working men has produced this result."

Owyhee—

It is said that a sale was recently made of the Oro Fino mine, and the Morning Star mill and mine, in Idaho, for the sum of $1,600,000. The purchase was made by a New York and English company of capitalists.

The Red Bluff *Independent* of May 16th, says: "For the past two or three days great preparations have been going on among the teamsters starting for Owyhee. Sneath & Boarman loaded up the mill machinery yesterday for the Flint district, Owyhee. The merchandise will be loaded this week. There are twelve ox-teams and fifteen horse and mule teams about starting."

The steamer for Snake river has been launched. She is 138 feet long, 26 feet beam, 243-horse power and draws 16 inches water.

The citizens of Owyhee offer, according to the Walla Walla *Statesman* the following prices for Indian scalps: For bucks, $100; squaws, $50; pappooses, $25. Seventy persons are already enrolled to engage in this hunt.

MONTANA.

A letter to the *Post* from Prickley Pear City, April 21st, says:

Operations have again commenced on Prickly Pear creek. Two companies are engaged in sinking shafts. Messrs. Nicholson & Co. are at work on the old shaft of Seahorn & Co., and are putting in an eight-foot overshot wheel. Wm. Alexander & Co. are to work one fourth of a mile below, and are bringing water from McClellan gulch.

New lodes are being found here every day. The Gifford lode, discovered by Messrs. Gifford and Robinson, of Helena, is attracting a good deal of attention. It has a shaft sunk on it about twenty five feet in depth, and shows a crevice of seven feet width. It is a silver lode and native silver can be seen in nearly all of it. It is situated about one and a half miles west from this place.

The Saggitarius, which is thought to be this same lode, is also rich with silver. By an assay of Professor Eaton, who holds a half interest, it shows $800 per ton, at a depth of eighteen feet.

The placer mines of Indian creek, on the Missouri, about twenty miles east of this place, are said by those just in from there, to be good. Big Indian, Sky-High, and others about the head of Holmes' and Dry gulch, are also yielding well.

The large steam quartz mill, which has laid in Boulder valley all winter, just passed through here, en route to the famous Brown lode, near Nelson gulch.

The Helena correspondent of the *Post*, May 2d, says:

News has been received, during the past week, of the discovery of very good diggings just beyond Medicine Rock, on the Little Prickly Pear. It is but a few feet to the bedrock; prospects vary from ten cents to three dollars to the pan, and a nugget weighing nearly forty dollars has been found.

The Bannock correspondent of the same paper, April 30th, says:

Messrs. Smith and Graeter are making extensive preparations to mine on a large scale. They have two hydraulic powers to run, besides turning Grasshopper on Jemmy's Bar. They are now employing a good many hands in repairing their ditch, etc.

Last week, in the lower part of the canyon, known as Yank William's diggings, Messrs. Mitchel and Sulley sank a prospect hole in the gulch, five feet square, and took out $25 in coarse gold; but could not clean the bed-rock on account of the water.

Jacob Rower, of Silver Bar Gulch, took from his claim, on the 30th of April, a nugget of nearly pure gold, weighing $105.

A brick weighing $2,100, was the result of a five days' run of a 6-stamp mill on the Kearsarge lode at Summit.

The Helena *Radiator*, of May, 5th, has the following items from Elk Creek:

J. W. Keenan, with four men, is cleaning up from $130 to $250 per day, to the sluice, in the main creek; Johns, with same force, from one to two hundred. The claim on Bilk Gulch, in which Charley Marden is interested, yielded $680, with one rocker, one day last week.

More gold has been exhibited during the week than is usual in this town; many coarse pieces have been picked up. Wheelock & McBride picked up $100, or over, in lumps in the ground sluice. Charley Marden's claim has paid between six and seven thousand dollars within two weeks.

The same paper says:

Indian creek is beginning to pan pretty well. From recent accounts from there we learn that much gold is being taken out now, out of the upper part of the creek, where water is in greatest abundance.

A Helena letter to the Reese River *Reveille*, dated April 28th, says:

There is considerable prejudice and strife existing between the 'pilgrims' and 'othersiders,' as they call them here. The pilgrims seem to think that they own the country because they came first, and judging from some of their mining regulations, one may reasonably presume they do own it. There is an instance where only thirty men claim an entire gulch, fully thirteen miles in length, which is something less than half a mile apiece. The discoverer of gulch diggings is entitled to four hundred feet from summit to summit in each district, and they make as many districts as they choose in each gulch. We will endeavor to remedy this, however, when we become numerically stronger.

BRITISH COLUMBIA.

The steamer '49 had made one trip from Collvillo to the foot of Death Rapids, fifteen miles from the mines on French Creek. She carried seventy-three passengers. She was nine days on her way up, but returned to Collville, 250 miles in two days.

COLORADO.

We gather the following items from the *Journal:*

Beverly & Son, of Nevada, are re-building the inside of the old Beverly mill. On the Kansas, Mr. Waterman has struck a soft, rich gouge He is putting in ball-grinders and shaking tables. Mr. Garrison goes East in a few days, and expects to take ten pounds of gold. Mr. Frink started twenty-five stamps in his new mill last Monday. Mr. Young had to take down the engine of the Stoner mill for some reason, and it is not now running. He tried his amalgamator a very little, before he stopped the mill. He was satisfied with its performance. J. Alden Smith has a C. & T. desulphurizer pretty nearly ready to run, over on Clear Creek. Mr. Cushman is going ahead with his for the Montezuma Company. Mr. Adams is still running his, and so is the Cook Company at the Excelsior mill. Mr. Adams says he can get more gold from his ore before it goes through the cylinders than after. He is making preparations to cut up the cylinders for some or any other use, and put up a Keith furnace. The works of the Sierra Madre company are rapidly approaching completion. Mr. Perrine believes he has at last struck the Washcash lode, for which he has been looking since Colfax was here last summer. It is said to resemble the Pewabic and to be very rich. We are told that $25 weight of gold was washed from two pans of dirt, and that wall-rocks have not yet been struck. The third section of twenty stamps in the Black Hawk Company's new mill has started, and now may be seen sixty 880-pound stamps pounding away, night and day, under one roof. The mill crushes six cords of ore per day. The *Journal* advises its friends to abandon the C. & T. (Crosby & Thompson) desulphurizer, and says Mr. Waterman has one for sale cheap. Three cords of quartz were said to yield Col. Grafflin 102 ounces of gold.

The Denver *News* exposes the "Golconda Gulch Association," a swindle lately gotten up in New York, purporting to be located in Colorado Territory, and gives extracts from its magnificent prospectus. The capital stock is named at one million dollars.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

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Mr. Wm. R. Bradshaw, is our Special Correspondent and Traveling Agent. All favors or assistance rendered him in his progress through the country in behalf of our journal, will be duly acknowledged.

SAN FRANCISCO, Jan 1st, 1866.

Mr. A. C. Knox, is our fully authorized Traveling Agent, and all subscriptions, or other favors extended to him, will be duly acknowledged at this office.

SAN FRANCISCO, Jan 11th, 1866.

Mr. I. N. Hudson, is authorized to solicit subscriptions, advertising, etc., for the MINING AND SCIENTIFIC PRESS, in San Francisco, and to receipt for the same.

Mr. S. D. Woods, will correspond and act as Agent of the MINING AND SCIENTIFIC PRESS in the interior.

San Francisco:

Saturday Morning, May 26, 1866.

ORE SMELTING IN COLORADO.—Three gentlemen of Nevada City, Colorado, Messrs. John R. Beverly, J. J. Cranmer, and Albert Gilbert, have been making some experiments in the smelting of ores, and the results seem to be entirely satisfactory; in communicating the account of their experiments to the Colorado *Journal*, they say: "Several weeks ago the undersigned associated themselves together for the purpose of practically testing (for themselves and others of the public who are not fully informed on the subject), the economy of treating Colorado ores for the precious metals by the process of smelting. Accordingly a smelting furnace of the 'Kustel' pattern—same as was used in early times in San Francisco for reducing the Washoe silver ores—has been erected in this place. This furnace, which is capable of working about four tons of ore in twenty-four hours, is made of the common brick manufactured at Central City, and saturated with a chemical solution. The hearth, which is 60 inches by 22, and the crucible 36 inches in diameter, are composed of clay and an admixture of fire-proof stone, which is found in the immediate vicinity in the greatest abundance. The total cost of the furnace is about $2,500.

NEW ARTIFICIAL LEG.—Mr. S. D. Smith, of Marysville, has invented a new artificial leg. It is entirely original, as the inventor has never seen any patents or models of the kind; but has constructed this, his first attempt, for his own use. The late Surgeon Cooper pronounced the first one made the finest he had ever seen, and the present mode is much improved. It is constructed of willow, firmly bound with steel, and combines in a remarkable degree, lightness and strength. The boot is composed of three parts, connected by delicate springs, giving it the movement of the true foot. The ankle joint, connected with the leg, is arranged with springs that give elasticity and ease to the motion of the whole leg. The inventor intends to apply for a patent.

BRASS FOUNDRY.—A day or two ago we dropped into the brass foundry of Gallagher & Weed, on First street, next to the office of the Pacific Foundry, and found a large force at work turning out the different articles in their line, for which there is now an increasing demand.

IMPROVED COMBINATION BANK LOCK.

Mr. William C. Bussey, of Jackson, has recently obtained a patent for an improved burglar and powder-proof combination bank lock, designed for safes, vaults, etc., which appears to be the most perfect thing of the kind yet devised. It presents no possible opportunity for the burglar or lock-picker to exercise his ingenuity in opening it. There is no keyhole in the opening to the lock. Upon the outside of the door upon which it is placed, two ordinary knobs are seen, the turning of one of which brings the tumblers into the proper position for allowing the bolt to be drawn, while the other draws the bolt. Without these knobs the lock cannot be worked, and if they are removed, no opening is presented by which a rogue can introduce any powder, nitro-glycerine, or in any other manner gain insight or entrance into its mysterious combinations.

This is a lock in which a series of rotating, annular tumblers is employed, and it consists in a novel arrangement of such tumblers, in connection with one or more arms, connected with one or more bolts, whereby an extremely simple and effective lock is obtained, presenting an almost unlimited number of combinations. The interior of the lock presents four concentric rings, which are allowed to turn freely by means of spring pawls and ratchet teeth, worked by turning forward and reverse one of the before mentioned knobs. Each ring is provided with an annular flange or ledge, which ledges form the tumblers—three in number. These flanges have each a recess, and by turning the rings, with their flanges containing the recesses, which is done by means of the knob upon the outside and the rachet teeth, the recesses upon each ring are brought into a direct line, through which the bolt may then be drawn. The art consists in so placing the flanges that they may all be in a direct line to admit of the drawing of the bolt. The springs or pawls make a distinct click, which may be heard by the ear, and a jar, which may be felt by the hand, each time one of the teeth in the rings is made to pass the spring. Each ring has one long tooth, the passage of which under the spring may always be known. The ring is turned by the knob until this long tooth is made to pass the spring; the position of the recess of the flange belonging to that ring is then known, and the operator, who has the combination upon which the lock is set, knows, then, by counting the clicks as each tooth passes the pawl, how many teeth to move the ring before the recess comes to its proper place for allowing the bolt to be drawn.

Each of the other rings are placed in position in the same manner, and when all are properly placed, the bolt is readily drawn. The lock which was submitted to our inspection, consisted of one bolt and four rings. The number of combinations under which it could be set was over 600,000. Any desirable number of rings and tumblers can be added, each additional ring increasing with an immense proportion the numbers of possible combinations. The rings may be set and turned by figures, by letters, by words, or by characters. The lock is exceedingly simple in its construction, and can be made at a moderate expense.

A portion of the claims of the patentee consists in the employment or use of a series of annular tumblers, as above described, provided respectively with teeth and pawls, and also with annular tumblers notched to operate in connection with notched arms, through which the bolts are moved; he also claims the peculiar construction of the arms applied to the bolts and arranged with the tumblers as above described. These locks may be seen on the vault of the Bank of British Columbia, corner of Sansome and California streets, and at Kittridge & Leavitt's Pioneer Iron Works, corner of Battery and Jackson streets. Parties desirous of examining the lock can have the opportunity of doing so by calling at either of the above places. They will soon be placed on the vaults of several other banks in this city. Any orders for these locks left at Kittridge & Leavitt's, as above, will be promptly attended to. Application can also be made direct to the inventor at the International Hotel, or to Markt & Fleishel, locksmiths, 18 Post street, where they are manufactured. Applications for patents have been made in all the most important countries of Europe—through the MINING AND SCIENTIFIC PRESS PATENT AGENCY.

BANK OF BRITISH COLUMBIA,
San Francisco, May 24, 1866.

Recently, two of Wm. C. Bussey's new patent Combination Burglar-Proof Locks were placed upon the vault doors of the Bank of British Columbia. They are found to operate with all the efficiency claimed by the inventor, and in every way meet our fullest approval.

They were ordered upon mature deliberation, after strict investigation of their merits, in comparison with some of the most noted and popular old styles of combination locks.

We deem the lock entirely burglar-proof. It is strong in construction, without intricate or delicate parts, with simple and easy movement. We find no difficulty in either opening or closing it, nor in changing its combinations, which may be made almost innumerable.

As a California invention of extraordinary merit, we take pleasure in recommending it to public attention, believing it to possess all the advantages which are claimed for it.

W. M. H. TILLINGHAST,
Sub-Manager.

A NEW MOTIVE POWER FOR SEA GOING VESSELS.

Mr. A. F. Yardell, of this city, has submitted to our inspection a model and illustrative drawings of a plan which he has devised for propelling vessels at sea by the motion of the water, or rather by the vessel's own motion, produced by the rolling of the sea. His mode of accomplishing this purpose is to suspend a heavy weight, which may consist of a portion of the cargo itself, with arms and levers so connected with the piston of an air pump, that the vibrations of the suspended weight is made to force atmospheric air into a strong reservoir, similar to a steam boiler; which air, so compressed, is made to drive an engine precisely as steam is employed to drive the wheels or screw of a steamer. Or the power may be taken from the levers, and applied directly to a series of paddles, as shown in his model. Two air pumps are employed, one of which is worked by the fore and aft pitching of the vessel, and the other by her side or rolling motion.

The weight employed is confined in two or more huge iron cribs or cages, hung in such a manner as to swing freely with the motion of the vessel, and very much like a compass in the binnacle. Calculations of the power which might be thus obtained, appear to indicate that from one-fifth to one-quarter of the weight of the cargo capacity of a sea-going steamer would give her more propelling power, under ordinary conditions of the sea, than is derived from the usual amount of steam power carried. Competent mechanics, to whom the model has been submitted, are unable to point out any special mechanical objection to the principle; and several shipmasters have expressed the opinion that the straining and laboring of the vessel will not be materially increased.

This invention is one of those simple, bold and original ideas, which, when once submitted afford matter of astonishment that they have not before been thought of. The whole arrangement is exceedingly simple and compact, and would interfere but very little with the full carrying capacity of a vessel. The other advantages of such a power as described, must be apparent to all. The idea is one well worth a careful consideration, and we trust some of our enterprising machinists and shipmasters will become sufficiently interested in the matter, to secure for the inventor a practical test, which is certainly necessary to clearly determine its value. Mr. Yardell may be found on applying at this office.

THE PACIFIC FORGE COMPANY.—We have already briefly alluded to an important manufacturing establishment, which has recently been put in operation, in this city, near the machine shop of the San Jose Railroad, and known as the "Pacific Forge." This establishment, the only one of the kind on the Coast, is under the direction of Messrs. Hall, Johnson & Co. Its importance to the growing railroad, steamship and other interests requiring heavy forging work, can scarcely be estimated. A crane and trip-hammer has been provided, by which every description of forge work, from a crowbar to a first-class steamship's shaft, can be turned out. These works will afford a ready market for our old scrap iron, which has hitherto been sent to the East and returned to us again in the very shape in which Messrs. Hall, Johnson & Co, now prepare it at our very doors. We have the testimony of Mr. R. Bishop, the mechanical engineer of the San Jose Railroad, that the railroad shafts turned out from this forge are superior to any imported ones. No better evidence of the character of their work, short of actual and long continued trial, can be obtained on this Coast. The forge will soon be running day and night, and its capacity will be increased to any extent which may be found necessary to supply the demand for such work in San Francisco.

TIN ORE ON THE PACIFIC COAST

MESSRS. EDITORS:—I am a reader of your valuable paper, therefore I take the liberty to address you a few lines, asking whether any bounty has been offered for the discovery of a tin mine. I have found a lode of that character that I suppose to be rich in tin; if such should prove to be a fact, and a bounty has been offered, what action is necessary, on my part, to obtain the same. C. A.

We have received the above query from a correspondent at West Point, Calaveras county. With reference to the bounty, we know nothing positively; but have always understood that Congress has offered a very handsome amount for the discovery of a workable tin mine, any where in United States territory, and the production of a certain amount of ore. The payment of the bounty, we presume, is conditioned upon the finding of tin ore, *in place*, and not its mere accidental occurrence in a stream or placer. Several parties are exerting themselves to secure the bounty, among others Judge James Walsh, who is now opening a number of tin mines in the Temescal mountains, some thirty or forty miles back of Los Angeles. Parties in Idaho also have their eyes upon the same object. If our West Point correspondent has really found a valuable tin mine, he has got a good thing whether he gets any bounty money from Government or not; and it would gratify us to hear of his success in both respects. We should be pleased to see some specimens of ore from the vein which he has discovered.

The first bar of tin ever taken from the ore in this State, was obtained by Dr. Lanszweert, in 1858. Mr. Price, the assayer, smelted a lot of ore and obtained a bar of tin some two years ago. Some four or five tons of tin ore were brought to this city from the Temescal mines, by Judge Walsh last fall, and concentrated, and the concentrated ore shipped to Europe. Both of the latter cases were noticed in the PRESS at the time. There is but little doubt that the Pacific coast will soon be producing tin, in considerable quantity.

The First California Bell.

EDITORS PRESS: Some time ago I saw an article in your paper relative to a bell which had just been cast by W. T. Garratt, of this city, in which it was stated that that was the first bell ever cast in this State. Now the fact is, that the first bell ever cast in this State was cast by Mr. Garratt for the side-wheel steamboat *S. B. Wheeler*, in 1851, by order of John Lochhead, of Lochhead's Steam Engine Works, Beale St., who was at that time engineer on the boat. The *S. B. Wheeler* came to this city the same year in the barque *Fannie*, which was sunk at Benicia in order to float the steamboat out. This bell was cast after many difficulties, owing to the want of experienced workmen. It weighed about seventy-five pounds. The *S. B. Wheeler*, at the time the bell was cast, was running on the Stockton route, and commanded by Capt. Spear, formerly clerk of the old steamboat *Senator*, which in an early day ran between this city and Sacramento. ANTIQUARY.

San Francisco, May 23d, 1866.

OIL.—The Napa *Register* notices a curious discovery at the head of Capel valley, about fifteen miles from that place, a ledge of white quartz, in which are small cavities containing petroleum—a spoonful or so in a place, here and there imbedded in the solid rock. A company, called the Alladin petroleum company, has been formed for the purpose of prospecting. Not long ago quicksilver was discovered in the same vicinity, in its fluid condition, imbedded in quartz. Nature must be subject to spasms in that region. It is only necessary now for the geysers to commence spouting oil instead of water.

SCHOOL HOUSE IMPROVEMENT.—The School-house at the corner of Broadway and Larkin streets is to be raised, and four school-rooms to be fitted up therein.

SCHOOL VACATION.—The present Public School term will close on Thursday of next week, after which there will be a vacation of a month.

THE TRACTORY CURVE, AND THE PROPERTIES OF GRINDING PLATES.

BY W. A. GOODYEAR,
Civil and Mining Engineer.

EDITORS MINING AND SCIENTIFIC PRESS: A few words more upon this subject, in reply to Mr. Randall's last article, will suffice.

In this article he says "I did not presume the weight of the ring plate in any of the cases recapitulated equal to that of the entire plate. It is thus so expressed both by word and formula." I have no wish to misrepresent any of Mr. Randall's words. The suppositions involved in the *results* he gave, are evident enough; but I must confess that I failed to gather from his *words* any clear expression of the fact in question, and on the contrary, the great stress which he laid upon the point, that the plates compared should all be of the *same weight*, led me to suppose that this was a point which he had overlooked, and that here he had failed to see the full bearing of his own formulas.

It is evident from his last remark upon the proportion "S : V : : E : G," that he does not yet comprehend—clearly as I have stated it—the principle which I have assumed relative to the distribution of pressure. I neither asserted nor supposed that he admitted "an *equal* distribution of pressure in plane and conical plates of uniform hardness," nor have I made any such assumption as this myself. I understood his discussion of plate A, and that discussion agrees precisely with the principle I did assume.

In reply to one or two other remarks, I will simply state that I have *not made* any "invention," nor am I, nor have I been in any way *interested* in the success or failure of the tractory conoidal or any other form of grinding plates, beyond the simple interest which every scientific man may take in investigating the truth, and exposing fallacy.

Mr. Randall claims, now, to have refuted from a "practical" point of view the two *main* and *important* points upon which I insisted.

With respect to these *soi distant* refutations, I can only say here, that they, too, are fallacious, resting as they do upon a mass of assumptions and assertions, many of which are more than questionable; but which the SCIENTIFIC PRESS has not the space, nor I the time, to discuss *ad infinitum*.

On subjects like these last, "the authority of practical mechanics" is of course "conclusive," *provided* the "practical mechanics" referred to are men accustomed to *close* and *accurate* observation, *and* provided they have instituted and executed with the necessary *care* and *attention*, the experiments required to settle such points. Otherwise their authority is of no value whatever.

I am of course fully informed of the fact that many comparisons have been already made in this country between the practical workings of the tractory conoidal and other pans, and am also aware that in some cases the results of these comparisons have been *reported* as very favorable for the tractory pan. But in *no case* have I been able to obtain sufficient data to satisfy me that the experiments were made under such conditions as to furnish results which can be *relied upon* as establishing *any principle*. And knowing, as I do, how numerous are the details to be attended to in order to obtain such results in any department of experimental mechanics, and knowing, too, how great is the lack of care with which, from ignorance of mechanical laws, and from other causes, experiments are and have been made, especially in a country like this, I shall continue to exercise my own "reason" instead of that of Mr. Raodall, and to doubt many of his asserted "facts" in this direction, till they are established by better authority than mere assertion.

I do not expect that the results of *reliable* experiments, when such are made, will agree *exactly* with *any* theory; but I do expect that they will approximate a true theory far more closely than his extravagant assertions and built up "demonstrations" would make them.

With these remarks, I drop the subject for the present. Should I ever return to it again, it will hardly be in the way of a public discussion, which shall involve as many slang phrases and personal reflections as the present one has done.

San Francisco, May 21, 1866.

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

[Written for the Mining and Scientific Press.]

Remarks.

EDITORS PRESS:—I notice in the *Miner* for May, a long answer to certain "QUERIES" made by me in a late number of your paper. This "reply" requires a few *remarks*. First, then, the original statement in the *Miner* was *not* that gold never occurred in *nature* combined with sulphur. Whatever the author may have *intended* to say, he *actually* made the unqualified assertion that gold *never* chemically unites with sulphur. Now every tyro in chemistry *does* know (and all chemical authorities agree upon this point), not only that hydrosulphuric acid precipitates metallic gold from *boiling hot* solutions of gold, but that it precipitates also the *sulphid* of gold from cold solutions. As to the "information" given us that "the terchlorid of gold is not gold," the author might as well have stated that sugar is not saltpetre. The one statement is as true as the other, and the one has as much connection with the point in question as the other.

With respect to emerylite and Dana, there was no misquotation, and neither myself nor the editor of the PRESS was in error. The quotation was not made without having consulted the *last* edition of Dana. But the quotation itself was made from an earlier edition, because in this edition emerylite is classed as a distinct species, and the description given of it is fuller, while in the last edition it is classed under the species margarite, and less is *said* here of emerylite in particular. There is nothing inconsistent, however, on this point in the two editions, as might be inferred from the fact alone that seven of the eight *analyses* of emerylite given in the old edition are also given *literatim* under margarite in the last edition.

Dana is not in the habit of making errors, which shall necessitate "corrections" to the extent suggested by the writer in the *Miner*.

To the writer of the "reply" himself I would say, in the best of faith, let us not be offended in criticism any more than in asking for information. ENQUIRER.

San Francisco, May 24, 1866.

BOX FACTORY.—One of the busiest institutions in the city is the box factory of Messrs. Hobbs, Gilmore & Co., on Market, between Beal and Main streets. Not less than eighty hands are kept constantly employed at this establishment. Boxes turned out of that manufactory are not only afforded cheaper, but for durability and excellence of workmanship, they are found far superior to those put together at shops where box making is not made a speciality.

PACIFIC POTTERY.—The Pacific Pottery, carried on by N. Clark, Esq., at Sacramento, is one of the most useful of the miscellaneous mechanical institutions in the State. The heavy cost for freight and loss from breakage involved in the distant transportation of the bulky articles of ordinary earthenware, render their manufactory on this coast almost indispensably necessary. J. M. Page, at 42 Clay street, in this city, is agent for the manufacturer.

NEW SEED SOWER.—Mr. Frank. Hill has invented a new grain sower, for which he claims an absence of all disadvantages hitherto attending similar inventions. The sower is constructed somewhat like the old drills used for drilling grain. The wheels, with cogs on the hub, gives motion to sets of parallel teeth working in the oblong box and prevents clogging of the grain outlets. The falling grain strikes on a sharp bar underneath and is scattered in all directions. The inventor will apply for a patent. He has also invented a rolling harrow for stubble fields.

AN ANCIENT BOQUET.—Colonel Howard, of Virginia, Nevada, has shown the editor of the Virginia *Enterprise* a most carefully preserved boquet of flowers, composed of sweet verbena, yellow manstatc, arborvitæ, velvet rose, and blue violets, which was gathered in 1838 from the garden of Robert S. Todd, father of Mrs. Lincoln, wife of our martyred President. These flowers are of course dry and almost colorless from age, being now twenty-eight years old; but they are an interesting relic. The same tow-string binds the package that was on it originally, and the Colonel cherishes these flowers among his best treasures.

Evening Schools.

The May number of the *Teacher* very properly calls attention to the system of Evening Schools, which has recently been introduced as a part of the Public School system of this city, and endorses the suggestion of the city Superintendent, that they should be continued throughout the year, instead of being confined to the winter months, as at first intended. The suggestion is a good one and timely. The practical importance of this branch of our educational system cannot be over-estimated, and should be liberally sustained.

The pupils of the Evening Schools are generally such as without that opportunity would go out into the world deprived forever of the greatest boon we can bestow on our own or our neighbor's children. The past is full of examples of the superior practical benefits derived from instruction obtained under difficulties, to those secured by attendance upon regular schools and academies. The distinguished men who have been thus indebted for their education, far outnumber those who have been brought up and educated in affluence or under easy circumstances. The examples alluded to in the article in the *Teacher*, to which reference has been made, are fully conclusive as to the importance of this extra avenue of popular education.

It is idle to assert that such men] achieved their greatness in spite of the deficiencies and difficulties which have surrounded them in early life; or that the benefit of the forcing system is better illustrated in pointing out the elevation of an inferior order of minds to positions of honor and trust. There is a degree of practicability and adaptation attending education so obtained, that is much less frequently met with in persons who have spent an unceasing attendance, during their minority, upon schools, academies, and the higher institutions of learning. We can never fully realize the value of a thing, unless we have striven to attain it.

SELECTIONS FOR A NEWSPAPER.—Most people think that the selection of matter for a newspaper is the easiest part of the business. How great an error. To look over and over hundreds of exchange papers every day, from which to select enough for one, especially when it is not what shall, but what shall not be selected. If every person who reads a paper could have edited it, we would hear less complaints. Every subscriber takes the paper for his own benefit, and if there is nothing in it that suits him, it must be stopped; it is good for nothing. Just as many subscribers as an editor may have, so many tastes has he to consult. One wants something sound: one wants anecdotes, fun and frolic; and the next one wonders why a man of good sense will put such stuff in his paper. Something spicy comes out and the editor is a blackguard. Next comes something argumentative, and the editor is a dull fool. And so, between them all, you see the poor fellow gets roughly handled. They never think that what does not please them pleases the next person, but they insist, if the paper does not suit them, it is good for nothing.

A WOMAN'S tears often soften a man's heart, her flatteries his head.

KEEP that man at a distance who hates music and the laugh of a child.

AGE is venerable in a man, and would be in a woman—if she ever became old.

MEN slip on water when frozen, and on whiskey when it isn't.

TOWNE & BACON, Print—
Stock Certificates,
Assessment Receipt Books,
Transfer Journals,
Circulars,
Hand Bills,
Cards,
Billheads,
And every kind of Job Work that may be desired.
A NEW ARTICLE OF TAGS FOR GROCERS' USE.
16v12 536 Clay street, opposite Leidesdorff.

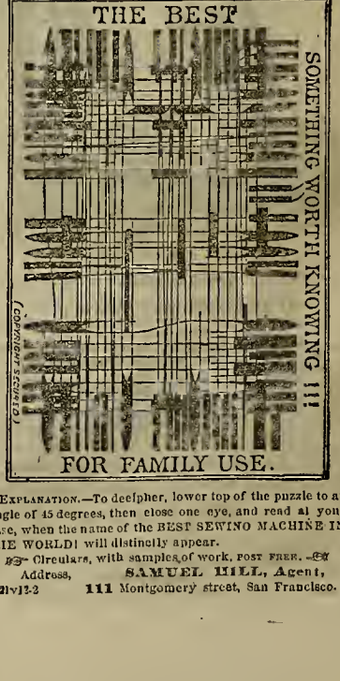
International Hotel,
JACKSON STREET,
BETWEEN MONTGOMERY AND KEARNY STS.,
SAN FRANCISCO, CAL.
THIS OLD ESTABLISHED HOUSE IS IN PERFECT order for the accommodation of guests. Persons seeking comfort and economy will find this the best Hotel in the city to stop at. The Beds are new and in good order, and the Rooms well ventilated. The Table will always be supplied with the best in the market.
Prices varying from $1 50 to $2 per day for Board and Room.
FINE BATH HOUSE AND BARBER SHOP ATTACHED TO THE HOUSE.
☞ Teams belonging to the House will be in attendance at all the boats and cars to convey passengers to the House FREE OF CHARGE, and to any part of the city for 50 cents
21v12 F. E. WEYGANT, Proprietor.

VALUABLE MINES!
FOR SALE
IN NEVADA COUNTY.
FOUR VALUABLE QUARTZ MINES, SITUATED AT THE base of Deer Mountain, and about equi-distant from Grass Valley and Nevada City, are now offered for sale. These ledges run parallel with each other, are wide and well defined, varying from fifteen inches to four feet in width, and have been sufficiently developed to prove them to be of great prospective value. One of them is an extension of the famous Star Spangled Banner. A shaft has been sunk on the extension to a depth of thirty feet, where the ledge is fully two feet wide, and prospects quite as well as the Banner did at that depth. On account of water, further progress downward was impossible without machinery. These claims are accessible at all seasons of the year, and wood and water exist in their immediate vicinity in great abundance. Parties who would prefer putting up machinery and sinking on one or more of these claims, for an interest in them, can do so, and liberal terms will be granted by the present owners.
Persons desiring to purchase claims, or erect machinery to prospect the same, will find this a capital chance. For further information, reference may be had on application to the Editors and Publishers of the MINING AND SCIENTIFIC PRESS, 505 Clay street, San Francisco. 21v12

STANFORD BROTHERS,
REFINERS AND PACKERS
—OF—
☞ COMET OIL! ☜
—FROM—
CALIFORNIA PETROLEUM.
WE WARRANT THIS OIL TO BE SUPERIOR TO ANY Eastern Oil, and any purchaser finding it to be not as represented, can return the same at our expense, and the purchase money will be refunded, together with all charges.
STANFORD BROS.,
21v12-3m 123 California street.

J. F. & H. H. SCHAFER,
MANUFACTUERS OF AND DEALERS IN
Bedding and Furniture,
OF EVERY DESCRIPTION,
Blankets, Comforters, Sheets, Etc.,
504 and 506 Sansome street, near Clay,
San Francisco.
☞ This establishment is now generally known to be the CHEAPEST PLACE in the city for good Bedding. 21v12-3m

OIL! OIL!! OIL!!!
—OUR—
MACHINERY OIL
IS SUPERIOR TO ANY IN USE, AND IS WARRANTED NOT TO GUM.
Dell, Cranna & Co.,
511 1-2 and 513 Front street, San Francisco
IMPORTERS OF
COAL OILS AND LAMP STOCK.
21v12-3m9p



EXPLANATION.—To decipher, lower top of the puzzle to an angle of 45 degrees, then close one eye, and read at your ease, when the name of the BEST SEWING MACHINE IN THE WORLD! will distinctly appear.
☞ Circulars, with samples of work, POST FREE. ☜
Address, SAMUEL HILL, Agent,
21v13-2 111 Montgomery street, San Francisco.

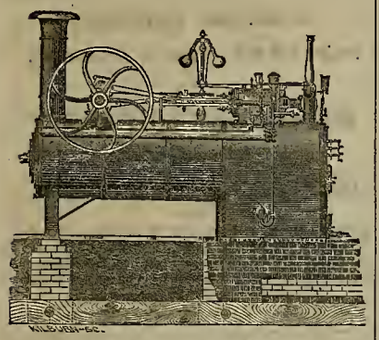
Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

HOADLEY'S.

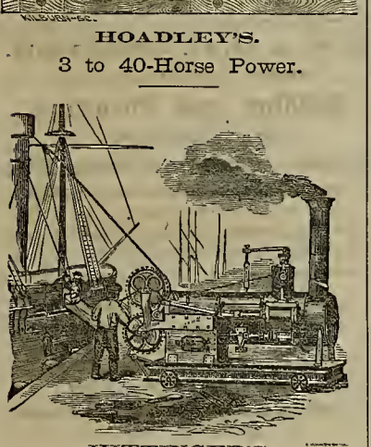
FOUR SIZES,

8, 10, 12, and 15-Horse Power,



HOADLEY'S.

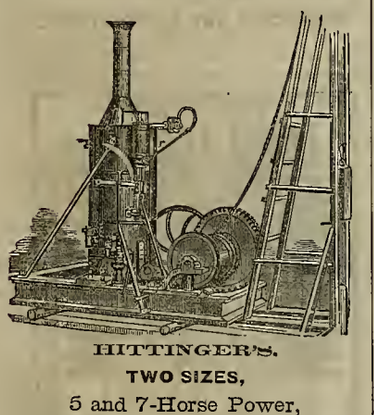
3 to 40-Horse Power.



HITTINGER'S.

THREE SIZES,

5, 7, and 10-Horse Power,



HITTINGER'S.

TWO SIZES,

5 and 7-Horse Power,

COMBINING THE MAXIMUM OF EFFICIENCY, DURability, and Economy, with the Minimum of weight and price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by TREADWELL & CO.,

18v12 Corner of Front and Market streets.

Metallurgy.

G. KUSTEL,

Metallurgist and Mining Engineer,

Stevenson House, corner Montgomery and California sts.

Ores Analyzed,

Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.

20v11-3m

BOALT & STETEFELDT,

Metallurgists and Mining Engineers

AUSTIN, NEVADA.

Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

C. W. MAYNARD. J. R. TIEMANN.

MAYNARD & TIEMANN,

Mining Engineers and Metallurgists,

240 Pearl street, New York,

—AND—

CENTRAL CITY, COLORADO.

19v12-1y

W. A. GOODYEAR. T. A. BLAKE.

GOODYEAR & BLAKE,

Civil and Mining Engineers

—AND—

Metallurgists.

Among others, refer by permission to—

PROF. SILLIMAN New Haven Ct.

DR. JOHN TORREY, U. S. Assayer, New York City.

W. C. RALSTON, D. O. MILLS, Bank of California.

BARRON & Co., San Francisc.

Address, P. O. Box 2,092, San Francisco, Cal. 9v12qr

EUROPEAN

METALLURGICAL WORKS,

—AND—

Practical Mining School,

Bryant Street, Between Third and Fourth,

SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business:

S. P. KIMBALL, J. R. MURPHY.

10v10

Copper, Lead, Gold, Silver,

Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

THOMAS PRICE,

Agent for Towashead Wood & Co., Swansea,

No. 406 California Street, San Francisco.

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ASSAY BALANCES,

LADD & OERTLING'S,

For sale low, by

ISAAC S. JOSEPHI & CO.,

14v12-1m 641 Washington Street.

Copper Ore! Copper Ore!

BOUGHT BY

CONROY & O'CONNOR,

Front, near Pine street, San Francisco.

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MARTIN & CO.,

Office, Stevenson House,

Corner California and Montgomery streets (up stairs).

WILL CONTRACT FOR THE

PURCHASE OF COPPER ORES,

Assaying eight per cent. and upwards of Copper to the We will make advances upon Ores of Copper.

San Francisco, Post Office Box 1259, 22

SODIUM,

Potassium, Magnesium,

And a fresh supply of

PURE CHEMICALS.

Just received and for sale by

JOHN TAYLOR & CO.,

4v12-1m 512 Washington street.

WILLIAM PENROSE,

Agent for Messrs. Vivian & Son and Dillwyn & Co., Smelters at Swansea,

Is prepared to buy in any quantity

COPPER, SILVER, GOLD, LEAD

AND OTHER VALUABLE ORES;

Also Lead Bars Containing Gold and Silver,

☞ Full value paid on delivery in this City.☜

Address Lock Box No. 992, P. O., San Francisco. 25v10

Trades and Manufactures.

WM. BARTLING. HENRY KIMBALL.

BARTLING & KIMBALL,

BOOKBINDERS,

Paper Rulers and Blank Book Manufacturers.

505 Clay street, (southwest cor. Sansome),

15v12-3m SAN FRANCISCO.

JOHN DANIEL,

(SUCCESSOR TO O. CORI)

MARBLE WORKS,

No. 408 Pine st. bet. Montgomery and Kearny, San Francisco.

Maatels, Moaumeats, Tombs, Plumbers' Slabs Etc., On hand and Manufactured to order.

☞ Goods shipped to all parts of the State. Orders respectfully solicited. 5v8-3m

NATHANIEL GRAY,

General Furnishing Undertaker,

641 Sacramento St., corner of Webb, San Francisco.

Barstow's Metallic Burial Caskets and Cases.

1tf

THEODORE KALLENBERG,

Maker of Models for Inventors.

MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.

No. 418 Market street, San Francisco. n7-tf

Palmer's Patent

ARTIFICIAL LEG,

Manufactured in Philadelphia, Penn.

JARVIS JEWETT, AGENT.

629 Washington Street, San Francisco, Cal. 10v8-1m

FIRE, HYDRAULIC & SUCTION HOSE,

And Leather Belting.

M. M. COOK & SON,

861 Battery Street, San Francisco,

Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.

The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO

CORDAGE MANUFACTORY.

CONSTANTLY ON HAND,

A Large and Complete Assortment

—OF—

MANILA CORDAGE,

FOR MINING PURPOSES

—ALSO—

WHALE LINE, BALE ROPE, ETC.,

Manufactured from Pure Manila Hemp.

Hoisting Ropes for Deep Shafts,

—ALSO—

Lines for Ferry Boats,

Manufactured to Order.

Office at TUBBS & CO.'S,

Nos. 611 and 613 Front street

Manufactory at the Potre 14v10

WE ARE NOW OFFERING

OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

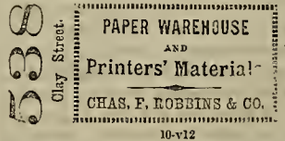
A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LOW PRICES.

J. R. MEAD & CO.,

8v10 Cor. of Washington and Sansome streets.



10-v12

Postponements and Alterations.—Secretaries are requested to give notice of postponements, or alterations which they may desire made in their advertisements at their earliest convenience. New advertisements should be sent in as early as possible.

[Written for the Mining and Scientific Press.]

Letter from Mammoth District, Nevada.

EDITORS PRESS:—I noticed an article in your issue of the 28th ult. that gives me no little surpriss, as coming in apparent sincerity from San Francisco capitalists. We of this section had long since ceased to look to that quarter for the capital with which to build our mills and open our mines, thinking your solid men had become thoroughly disheartened by the willfully ignorant mismanagement and misapplication of their funds elsewhere in the earlier and unsettled days of silver mining. The portion of the article referred to is as follows:

"If sufficient ore of a class that would *assay* $75 per ton could be obtained to constantly maintain a small mill at work, we understand it is probable that if encouragement were given, some parties in San Francisco would venture on a trial."

In relation to the Austin mines (to which the article above seems more particularly addressed), I have but little to say *pro* or *con*; although, if my opinion were expressed, it would be decidedly favorable to the richness of the ores of that district; but they already have a large number of the finest quartz mills ever erected, and should now go sensibly to work on their mines before building more.

Let me say that here, in Mammoth district, ample encouragement will be given to parties wishing to erect a mill, and sufficient quantities of ore will be guaranteed, by a glance at our mines, that will *work* seventy-five dollars per ton (to say nothing of assay), and maintain not only a small mill, but one of the largest capacity. We have a great number of lodes varying from one foot to ten feet in width, opened to a depth ranging from thirty to one hundred feet, with pay ore from the surface, of a very tractable nature. We have wood here in the greatest abundance, to be obtained at a price not to exceed four dollars per cord delivered. The owners of these mines are, almost without exception, men who have their last dollar in their mines, and are, consequently, unable to develop them to the extent they would wish; but sufficient work has been done to establish their value beyond a doubt. Without hesitation, I will say that ores which may be worked with large profits by a 20-stamp mill are already in sight, in quantities that will satisfy any one by a visit to Mammoth. We are thirty-five or forty miles nearer the base of supplies than Austin, in the very core of the richest silver region yet discovered. Send on your sincere men who wish to invest their money in an enterprise for the legitimate profits of the mines, and I promise that they shall be pleased, and find far more than asked for in your articles of the 28th.

A. J. HOWK.

Weston, Nye Co., Nev., May 7th, 1866.

A PERILOUS FEAT.—A blacksmith in Ilminster, England, lately performed a perilous feat. A child aged seven years, while playing with his brother, aged 12 months, placed over his head an iron band similar to that used for the hubs of cart wheels. The child's neck began to swell, and when the parents discovered it they were horrified to find that it was impossible to remove the band, and that suffocation was imminent. A blacksmith named Coles was called in, and suggested the desperate idea of hammering off the iron with a sledge, and he successfully completed his task. While one person held the legs and another the head of the little one, Coles fearlessly struck at the ring and severed it. A false blow of half an inch would have caused instant death.

A NEW RUDDER FOR SHIPS.—A new ship rudder has been experimented with at Havre, France, in the presence of a number of naval officers and shipbuilders. It is composed of four pieces connected by hinges in place of one solid piece. By means of these joints the rudder when set in motion by the tiller presents a curved surface to the water in place of flat surface. The object is to give both a greater flexibility and a stronger action to the rudder. During the experiment it was attached to a large boat, which it is said to have brought round instantly.

SIMPLE PROCESS FOR SILVERING.—An employee of the Bavarian Mint has patented an improved process for silvering copper, brass, and other alloys by means of a solution of silver in cyanide of potassium; the difference from the usual method consists in the use of zinc-filings, with which the objects are coated; when the silvering solution is applied, an immediate deposition of a much more durable character taking place. The filings are easily removed by rinsing in water, and may be used repeatedly for the same purpose. Metallic iron may be coated with copper in the same manner, by substituting for the silver a solution of copper in cyanide; and over this copper deposit a coating of silver may be applied.

THE following verse contains all the letters in e alphabet, and may be used as an exercise for oung children in tracing the letters :

"God gives the grazing ox his meat,
And quickly hears the sheep's low cry,
But man who tastes his finest wheat,
Should joy to lift his praises high."

Machinists and Foundries.

O. HANSCOM, S. SMITH. } **HANSCOM & CO.,** { 17 FRONT ST. W. W. HANSCOM.

Ætna Iron Works!

Southeast corner Fremont and Tehama streets,
SAN FRANCISCO,

Practical Machinists and Iron Founders,
MANUFACTURE
STEAM ENGINES,
QUARTZ MILL MACHINERY OF ALL KINDS,
SAW MILLS, FLOUR MILLS,
Dunbar's Improved Self-Adjusting
PISTON PACKING,

Now so extensively used in the East and in this State. Requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

HANSCOM'S CRUSHER,
the best of the kind now in use in this State or anywhere else.
Wheeler & Randall's New Grinder and Amalgamator,
Which only needs examination to be appreciated.
Tyler's Improved Water Wheel,
Giving greater power at lower cost, than any wheel in use. Send for one of our circulars, giving full tables. All Wheels warranted to give the power as set forth, or the money will be refunded.

Sole makers for this coast of the "Pendergast White Iron Stamp Shoes and Dies."
None genuine unless obtained from us. Every one warranted.
Patented Machinery of all kinds will be furnished by us at market prices. Particular attention given to drawings and specifications of machinery, which will be made to order. The patronage of the public is respectfully solicited.
19v12

LEWIS COFFEY. J. S. RISDON

LEWIS COFFEY & RISDON,

Steam Boiler & Sheet Iron Works.

THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality. Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

NEPTUNE IRON WORKS,

Corner of Mission and Fremont Streets,
SAN FRANCISCO.

MARINE,
Locomotive,
And all kinds of
HIGH PRESSURE
Steam Boilers
MADE.

All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.

All kinds of Sheet Iron and Water Pipe, Coal Oil Stills, Wrought Iron Worms, etc., etc. Manufactured to Order.

6v12-1y **Old Boilers Repaired**
D. CAMERON.

GEORGE T. PRACY,
MACHINE WORKS,

Nos 109 and 111 Fremont street, near corner of Mission,
OPPOSITE MECHANICS' MILL,
SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL, And Quartz Machinery, Printing Presses,
— AND —
MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

☞ Special attention paid to Repairing. ☜ qy-3

JAMES MACKEN,
COPPERSMITH,

No. 220 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to.
13v11

SAN FRANCISCO
Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,
Manufacturers of
Marine and Stationery Engines,
Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.
—ALSO—
Wine, Cider, Cotton and Tobacco Presses
of the latest Improved Patterns.
Brodie's Improved Patent WINO BLAST SEPARATOR, for Dry Crushing; Baux & Guiod's Amalgamator and Separator; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,
Bought, sold, or exchanged. Bolt Cutting and Castings at the lowest market rates.

6v11-1y **DEVOE, DINSMORE & CO**

THE PACIFIC IRON WORKS,

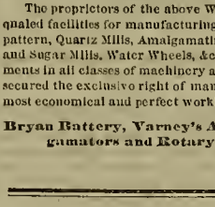
First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

REMINGTONS'
ARMY AND NAVY REVOLVER,



THE REMINGTON REVOLVER

Has been approved by the United States Board of Ordnance, and has so satisfactorily met the requirements of the Government, not only in the field, but in the official tests and examinations made by prominent officers of the Ordnance Department, that it stands at once the most popular, serviceable and approved arm of the kind in use. Upwards of 125,000 have been supplied to the Government within the past four years, for the land and naval service, furnishing ample evidence of the estimation in which the arms are held.

Simple and symmetrical in its entire construction, securely strong, of most modern improvement in mechanism and material; its unequaled range and penetration, together with its durability, are points in its favor now well known, and which challenge a comparison with any other pistol of the kind made in this country or in Europe.

The superior strength and capacity of the arm for constant and long use is apparent from the fact that the entire frame is constructed of a single piece of metal, thus preventing the extension of some portions of the frame, from the effect of firing—a serious defect in many pistols—in which the frame is composed of two or more parts.

The frame of the Remington Revolver furnishing a TOP STRAP or support above the cylinder, served to protect the base pin (on which the cylinder revolves) from any undue strain to which it would otherwise be subjected, and which would immediately render the line of fire from the cylinder to the barrel imperfect, thus destroying force and accuracy.

Another advantageous feature of the arm is the means afforded for the instantaneous removal of the cylinder from the frame. This not only facilitates the cleaning of the pistol, but by the quick adjustment of the cylinder, one pistol can be made as effectual as two—and, considering the difference of weight, it is far preferable—by simply possessing a spare cylinder loaded and capped to instantly replace the exhausted one.

The above is a general summary of the points of peculiar merit in the Remington Revolver which a trial of the arm is only needed to attest. For sale at Manufacturers' rates, by

16v12 **ALBERT E. CRANE, Manufacturers' Agent,**
310 Washington Street, up stairs.

Vulcan Iron Works Company

[ESTABLISHED 1850.]
First, Natoma and Fremont Streets.

IRON FOUNDERS,
Steam Engine and Locomotive BUILDERS,
Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery, Locomotives, Car Trucks, Car Wheels, Flouring Mills, Quartz Mills, Sugar Mills, Saw Mills, Hoistings and Irons; and

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR.
BEATH'S AMALGAMATOR;
HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;
BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;
FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;
JONVAL'S IMPROVED WATER WHEEL;
LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

M. REYNOLDS,
COPPERSMITH
—AND—
SHEET IRON WORKER,

Market street, near Front, San Francisco.

ALL KINDS OF COOKING UTENSILS tinned and made to order. 16v12-3m

SUBSCRIBERS who do not receive the MINING AND SCIENTIFIC PRESS in due time, are requested to inform the publishers.

H. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!

Corner First and Mission streets,
SAN FRANCISCO.

ESTABLISHED IN 1849.

HAVING INCREASED OUR FACILITIES IN EVERY Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Fine, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's Improved Tractory Curve Pan, Zenas Wheeler's improved flat bottom pan, Belcher's pan, Veatch's tubs, Frater's concentrators, Wahlee's pans, Beers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.

21v10 **H. J. BOOTH & CO.**

BY MAIL.—The MINING AND SCIENTIFIC PRESS will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

PALMER, KNOX & CO.,
Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,
SAN FRANCISCO.

MANUFACTURE ALL KINDS OF
MACHINERY,
STEAM ENGINES AND QUARTZ MILLS
DUNBAR'S IMPROVED
Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S
NEW GRINDER AND AMALGAMATOR
HEPBURN & PETERSON'S
AMALGAMATOR AND SEPARATOR,
Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,
WITH PALMER'S PATENT STEAM CHEST,
Superior for working either Gold or Silver Ores.
Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

FULTON
Foundry and Iron Works.

HINCKLEY & CO.,
MANUFACTURERS OF
STEAM ENGINES,
Quartz, Flour and Saw Mills,
Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

Miners' Foundry
— AND —
MACHINE WORKS,

First St., between Howard and Folsom Streets,
SAN FRANCISCO.

EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,
Machinery, Mining Pumps, Amalgamators,
Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST. All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KING

Pioneer Iron Works.

KITTREDGE & LEAVITT,
MANUFACTURERS OF
FIRE-PROOF DOORS AND SHUTTERS

Steel Lined Bank Vaults and Safes,
PRISON CELLS, BALCONIES, AWNINGS,
Grating and Iron Fences, Stairs, Etc.
ALSO, AGENTS FOR
BUSSEY'S NEWLY PATENT COMBINATION
BURGLAR-PROOF LOCK,
☞ No KEY, or visible signs of OPENING, ☜
Corner of Battery and Jackson streets,
San Francisco.

Constantly on hand a large assortment of Second-Hand Fire-Proof Doors and Shutters. 18v12

UNION IRON WORKS,
Sacramento.

WILLIAMS, HEILBRON & CO.,
MANUFACTURERS OF
STEAM ENGINES, BOILERS,
And all kinds of Mining Machinery.

Also, Hay and Wine Pressos made and repaired with neatness, durability and dispatch.

Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

Front Street, between N and O streets,
14v11 SACRAMENTO CITY

JOHN LOCHHEAD'S
STEAM ENGINE WORKS,

Beale Street, near Mission Street,
SAN FRANCISCO.

Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc
25v9q JOHN LOCHHEAD, Practical Engineer

Occidental Homestead ASSOCIATION,

Office, 305 Montgomery street, San Francisco.

Capital Stock : : : : : : : $33,600

102 Shares, $330 Each.

THIS ASSOCIATION was formed to enable its members to obtain desirable homestead lots in this city, at a cheap and easy rate, paying for the same by regular monthly installments. For this purpose they have purchased blocks 499, 600, and 601 in the Western Addition to this city, bounded by Devisadero, Pine, Broderick and Clay streets. Subscribers will pay an initiation fee of $5 on each share taken, to form a fund for defraying current expenses, and $11 per month for thirty months, commencing in April, 1866. The property is within three blocks of the Turk Street Railroad, is nearly all on the grade, and is most desirably located for homestead purposes. It is directly east from the lands of the California Homestead Association. The property has been purchased on very reasonable terms, and offers a rare opportunity for investment. A number of fine houses are in process of erection, and streets are being graded near this property, which will greatly increase its value.

When twelve monthly payments have been made, the property will be divided among the members in the usual manner, and each shareholder will receive a contract for a deed to the lot or lots to which he may be entitled, and have the privilege of taking immediate possession of the same. The lots average 27 feet in front by 120 feet in depth. The whole amount due upon any lot may be paid at any time, and discount at the rate of 1½ per cent. per month will be deducted therefrom. Persons wishing to visit the lands of this Association will take the Turk street cars to Devisadero street, and thence go northerly along Devisadero to Pine street.

$20,000 of the capital stock is taken, and the books are open for subscription to the balance, at the office of the Secretary, where the Official Map of the Association can be seen, and all particulars obtained.

The Title to this property is perfect.

J. S. LUTY, Secretary.

Office 305 Montgomery street, corner of Pine, Rooms 2 and 6. 20v12-tf

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLATure of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire.....$12,973,949
Marine..... 481,408

This Company commenced underwriting Marine Risks, August 1, 1865.

V.—This Company insures against the following risks, viz:: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm Hooper,	Lloyd Tevis,
Anson G Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer.	L. B. Benebley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G T. Lawton,
Alpheus Bull,	William Scheelle,	E. L. Goldstein,
W. G. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings, J. G. Kellogg,		

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
4v12-3m

The Great Pain Annihilator.

DR. E. R. JOHNSON WILL WARRANT TO CURE ALL cases of Asthma, Fever and Ague, Catarrh, Sore Throat, and Womb Diseases. The Doctor's success is miraculous in cases of RHEUMATISM, NEURALGIA, CONSUMPTION, GOUT, PARALYSIS, INFLAMMATION OF THE EYES, and all other diseases that human skill can reach. Rheumatic Pains removed in five minutes. Some of the afflicted that visit him come from one to six hundred miles, and soon find relief. Persons at a distance can be cured at home by addressing a letter to Dr. Johnson, No. 700 Market Street, San Francisco, stating case, symptoms, length of time the disease has continued, and have medicine promptly forwarded to any part of the country, with full and plain directions. ☞ Consultation by letter or otherwise, FREE. 16v12-1m

SAN FRANCISCO MILL.
HOBBS, GILMORE & CO.,
MANUFACTURERS OF
☞ BOXES! ☜
Market street, between Beale and Main, San Francisco.

For sale, Mahogany, Spanish Cedar, and other Fancy Woods. 20v12-3m

To Mining Companies!

WANTED—A SITUATION, IN THE EMPLOY OF SOME Mining Company, by a young man, a graduate of the Clausthal School of Mines, and who has had bad experience in the mines of Nevada. Address,
20v12-4t RIEHN, HEMME, & CO., Assayers, S. F.

Preparing for Immediate Publication.
ONE VOLUME, OCTAVO.

THE PACIFIC COAST
BUSINESS DIRECTORY!
FOR 1866.

Price.....$5 00,

Payable on Delivery of the Work,

CONTAINING THE

NAMES, BUSINESS AND ADDRESS OF ALL MERchants, Manufacturers and Professional Men, in the States of California, Oregon and Nevada, and the Territories of Washington, Idaho and Montana; also, lists of the Commercial, Agricultural, Manufacturing, Mining, Petroleum, Railroads, Telegraph, Banking and Insurance Companies in operation at the present time in the above States and Territories, to which will be added such other items of information as will render the work a VALUABLE and RELIABLE MEDIUM OF REFERENCE.

☞ Compiled by the Editor of the San Francisco Directory, State Register, etc.

In announcing the above enterprise, the compiler deems it unnecessary to refer more particularly to its contents. He would state, however, that it shall be his aim to present a work of practical utility to all who are interested in the development of the resources of the Pacific coast. For the fulfillment of this, he respectfully refers to the different compilations issued under his charge for the past ten years.

HENRY G. LANGLEY, Publisher,
612 Clay street, San Francisco.
San Francisco, April 19, 1866. 20v12

FLORENCE
SEWING MACHINES!

COPY OF THE REPORT OF THE COMMITTEE OF AWARDS AT THE FAIR OF THE

AMERICAN INSTITUTE,
New York, 1865,
—TO THE—
Florence Sewing Machine Company,

FOR THE BEST FAMILY SEWING MACHINE.

HIGHEST PREMIUM—GOLD MEDAL!

REASONS:

1st.—Its simplicity and great range of work.

2d.—The Reversible Feed Motion.

3d.—The perfect finish and substantial manner in which the machine is made.

4th.—The rapidity of its working and the quality of the work done.

5th.—The Self-adjusting Tension.

The "FLORENCE" was awarded the First and Highest Premium at the State Fair of California, the only Fair on the Pacific Coast at which any two double-thread Sewing Machines were exhibited in competition in 1865.

The "FLORENCE" received the only premium awarded by the Mechanics' Institute of San Francisco, in 1864 and 1865, to any Sewing Machine, Sewing Machine Company, or Agent. The claim of a competitor to a medal is without any foundation whatever.

Wherever the "FLORENCE" has been brought in competition with other Sewing Machines, it has always been declared the best. It is the most simple, the most substantial, the most efficient, and its use is easily learned. Every Machine sold is guaranteed in the full sense of the word.

Send for Circulars and Samples of Work.

SAMUEL HILL, General Agent,
20v12-14w 111 Montgomery street, San Francisco.

Rheumatism!!
READ IT! READ IT!!

SACRAMENTO, April 16th, 1866.

H. BOWMAN—DEAR SIR: THIS IS THE FIRST WRITing I have done in two years, and it affords me great pleasure to be able to use my pen in the service of those who are suffering, as I have suffered, by stating the following facts:

I have for two years and upwards been afflicted with CHRONIC RHEUMATISM, and until a few weeks ago I have never found anything that afforded me any relief. For three months of the time I was unable to feed myself, and for the last five months my arms have been so bent that I have not been able to dress myself. I was five months at the Warm Springs, at San Luis Obispo, and three months at a Hydropathic Institute in Stockton, and I have been under the care of six different physicians, in the vain hope of relief. About four weeks ago I was induced by a person who had been cured by it to try a bottle of RICHARD'S REMEDY FOR RHEUMATISM, and in less than twelve hours I experienced great relief. In a few days I was enabled to straighten out my arms, and I have been getting better and gaining in strength and flesh ever since. I have now the complete use of all my limbs, and, for the first time in two years, I am out of pain. I do feel for those who suffer as I have suffered, and if they will take my advice, they will lose no time in giving the REMEDY a trial.

Yours truly, GEORGE TAYLOR.

☞ RICHARDS' REMEDY is for sale by
H. BOWMAN,
Druggist, Sacramento.
Price, $2 50 per Bottle. 20v12

PACIFIC POTTERY!

STONEWARE AND EARTHENWARE OF ALL DESCRIPtions, such as Butter Pots, Pickle Jars, Churns, Water Jugs, Bean Pots, Flower Pots, etc., etc., from the manufactory of N. CLARK, Esq., Sacramento—constantly on hand and for sale, in quantities to suit, by

J. M. PAGE,
20v12 3m No. 42 Clay street, between Drumm and Sansome.

Our Irculation.—THE MINING AND SCIENTIFIC PRESS has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

The Bank of California.

SAN FRANCISCO, MAY 9, 1866.

NOTICE.—AT A MEETING OF THE STOCKHOLDERS of this Bank, held on the 5th instant, it was resolved to increase the Capital Stock of the Corporation to $5,000,000, Gold, to take effect on the FIRST DAY OF JULY next, and the President and Cashier are authorized to receive subscriptions for $2,000,000 of said Capital Stock. Parties desirous of subscribing will make application at the Bank, either personally or by letter, when further details will be given.

D. O. MILLS, President.
19v12-1m W. C. RALSTON, Cashier.

Commercial Academy for Ladies & Gentlemen.

NO. 111 K STREET, SACRAMENTO, CALIFORNIA. Established in 1863, where students can acquire a thorough business education. Double Entry Book Keeping, Practical and Ornamental Penmanship and Drawing, Latin, French, the Common and Higher English Branches, taught on reasonable terms. Students from any part of the State can procure board and lodging in private families, near the Academy, at from $4 to $6 per week. For terms, address, MURT TAYLOR, Principal; Miss SARAH. J. WEIR, Associate Principal. 20v12

New Mining Advertisements.

Continued Mining Advertisements will be found on another page.

Boston Copper Mining Company, Ohio Mining District, El Oorado County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 22d day of May, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 626 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 22d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 18th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. C. HUTCHINSON, Secretary.
Office, 626 Montgomery street, San Francisco, Cal. my26

Crockett Consolidated Mining Company.—Location of Works: District and County of Esmeralda, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable May 25th, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 19 Exchange Building, corner Washington and Montgomery streets, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 25d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 10th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOHN M. BURNETT, Secretary.
Office, No. 10 Exchange Buildings, San Francisco, California. my26

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 17th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
O B Turrell	70	30	$ 3 00
F Loehr	278	200	20 00
F Loehr	279	60	5 00
F Loehr	297	120	12 00
F Loehr	330	30	3 00
F Loehr	347	90	9 00
F Loehr	350	20	2 00
F Loehr	374	45	4 50
F Loehr	397	70	7 00
F Loehr	405	100	110 00
F Loehr	431	15	1 60
F Loehr	475	75	7 50
F Loehr	495	150	15 00
F Loehr	608	69	6 90
F Loehr	513	241	24 10
F Loehr	514	155	15 50
F Loehr	527	163	16 30
Chas W Cordray	554	25	2 50
Chas W Cordray	555	25	2 50
Geo Cofrau	135	25	2 50
Geo Cofrau	137	60	6 00
Geo Cofrau	not issued	95	9 50
Mrs J C Turrell	151	20	10 00
J S Filloon	202	100	10 00
Mary Brooks	310	20	2 00
Ruth Taylor	311	10	1 00
D O Leary	308	20	2 00
Warren Brown	340	25	2 60
R H Derrickson	393	25	2 60
Geo T Sharp	425	200	20 00
W W Theobalds	9	100	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 17th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 11th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. B. WINEGAR, Secretary.
Office, 308 Front street, San Francisco. my26

North American Tin Mining Company. Location of Works: Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, A. D. 1866, an assessment of forty cents per share was levied upon the capital stock of said Company, payable in gold coin of the United States, immediately, to the Secretary, at his office, at 535 Clay street, in the city of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 22 day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. N. THORNE, Secretary.
Office, Room No. 7, at 535 Clay street, San Francisco, California. my25

Ophir of the Colorado Silver Mining Company, El Dorado Canon, Colorado District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of May, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, T. A. MONGE, 523 Clay street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 26th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. A. MUDGE, Secretary.
Office, 523 Clay street, San Francisco. my26

Simpson & Bosselle Mining Company.—Mines located in Carson Valley.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 20th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable on the 30th day of April, 1866, in United States gold and silver coin, to the Secretary, or to Dr. J. W. WATERS, Markleeville, California.

Any stock upon which said assessment shall remain unpaid on the 25th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 14th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. BIBBINS, Secretary.
Office, 305 Montgomery street, San Francisco, Cal. ap28

POSTPONEMENT.—The day for decming stock delinqaent on the above assessment is hereby postponed until the 9th day of June, 1866, and the sale thereof until the 29th day of June, 1866. By order of the Board of Trustees.
my26 T. L. BIBBINS, Secretary.

Sapphire Quartz Mill and Mining Company. Location: Gold Hill, Storey County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of May, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, Room No. 5, Lucas Turner & Co's Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 28th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 17th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. KOENIG, Secretary.
Office, Lucas Turner & Co's Building, N. E. corner of Jackson and Montgomery streets, San Francisco, Cal. my26

United States Mining Company, Virginia District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 19th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm Green	326	10	$10 00
Sarah Torrens	317	10	10 00
Horace Porter	323	250	250 00
C E Weber	319	50	50 00
Geo Torrens	316	10	10 00
Wm Van Housen	390	10	10 00
B C Brown	416	50	50 00
W P Davidson	423	60	60 00
John Prince	307	60	50 00
A A Smith	454, 555	25-ea 60	60 00
Elisha Eldrid	373, 374	20-ea 40	40 00
Elisha Eldrid	375	12	12 60
Lucy T Duval		15	15 00
David S Turner	362, 363, 364	365 25-ea 100	100 00

And in accordance with law, and an order of the Board of Trustees, made on the 19th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, California, on Wednesday, the 13th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.
Office, No. 10 Government House. my26

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Batopilas Mining Company, Batopilas District, State of Chihuahua, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 4th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
B Mawbee	unissued	32	$8 00
Andrew Wilson	unissued	15	3 75
John Slitz	unissued	19	4 75
Edward McCaan	20	21	10 50

And in accordance with law and an order of the Board of Trustees, made on the 4th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at the office of the Company, No. 811 Montgomery street, up stairs, San Francisco, on the 23th day of May, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. MARTINON, Secretary.
Office, 811 Montgomery street, San Francisco, Cal. my19

ENGRAVED TO ORDER.—Persons who desire to illustrate their individual establishments or business, should give us their orders for Engraving and Printing, and we will guarantee good work and reasonable prices.

DEWEY & CO.,
Patent Agents, Publishers and Job Printers, 605 Clay st

Its correspondents are men of science and learning, and hail from all parts of the coast. It is published at San Francisco, at $5 per annum, or $3 for six months. Address Dewey & Co., publishers of MINING PRESS, San Francisco. [Nye County News.

apitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

Notice is hereby given, that at a meeting of the Board f Trustees of said Company, held on the 30th day of pril, 1866, an assessment of ten cents per share was evied upon the capital stock of said Company, payable imediately, in United States gold and silver coin, to the ecretary, or to E. H. SWARTHOUT, Treasurer, San Jose, alifornia.

Any stock upon which said assessment shall remain unaid on the 12th day of June, 1866, will be deemed delinoent, and will be duly advertised for sale at public auction, nd unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent ssessment, together with costs of advertising and expenses f sale. By order of the Board of Trustees.

D. R. BECKFORD, Secretary.

Office, 731 Clay street, San Fra ncisco, Cal. my5

Rio Padre Gold and Silver Mining Company, Alamos, Mexico.

Notice is hereby given, that at a meeting of the Board of rustees of said Company, held on the 28th day of April, 866, an assessment of three dollars per share was levied pon the capital stock of said Company, payable on tha 0th day of April, 1866, in United States gold coin, to the ecretary, E. C. McCOMB, No. 1 Government House, corner ansome and Washington streets, San Francisco.

Any stock upon which said assessment shall remain unaid on the 5th day of June, 1866, shall be deemed delinuant, and will be duly advertised for sale at public uction, and unless payment shall be made before, will be old on Saturday, the 23d day of June, 1866, to pay the deinquent assessment, together with costs of advertising and xpenses of sale. By order of the Board of Trustees.

E. C. McCOMB, Secretary.

Office, No. 1 Government House, corner Sansome and ashington streets, San Francisco, Cal. my5

Lyeon Consolidated Copper Mining Company, Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of rustees of said Company, held on the 4th day of May, 1866, n assessment of twenty-five cents per share was levied pon the assessable capital stock of said company, payable ay 12th, 1866, in United States gold and silver coin, to the ecretary, C. E. ABBOT, or to A. E. THAYER, at the office f the Company, at No. 532 Merchant street, room No. 3, n the city and county of San Francisco, State of California.

Any stock upon which said assessment shall remain unaid on the 6th day of June, 1866, shall be deemed deinquent, and will be duly advertised for sale at public uction, and unless payment shall be made before, will be old on Monday, the 2d day of July, 1866, to pay the deinquent assessment, together with costs of advertising and xpenses of sale. By order of the Board of Trustees.

C. E. ABBOT, Secretary.

ffice, No. 532 Merchant street, room No. 3, San Francisco, California. my5

Eagle Quartz Mining Company.—Location of Works: Amador County, California.

Notice is hereby given, that at a meeting of the Board of rustees of said Company, held on the 15th day of May, 866, an assessment of one dollar per share was levied pon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 10 Exchange Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unaid on the 16th day of June, 1866, shall be deemed deinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold n Friday, the 6th day of July, 1866, to pay the delinuent assessment, together with costs of advertising and xpenses of sale. By order of the Board of Trustees.

JOHN M. BURNETT, Secretary.

Office, No 10 Exchange Building, San Francisco. my19

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County Cal.—Assessment No. 11.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 866, an assessment of one dollar per share was levied pon the capital stock of said company, payable immediately, in United States gold and silver coin, to the Secretary, at the Office of the Company only.

Any stock upon which said assessment shall remain unaid on the 12th day of May, 1866, shall be deemed delinuent, and will be duly advertised for sale at public auction, nd unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent ssessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. ap14

POSTPONEMENT.—The advertisement of stock delinquent on the above assessment, is hereby postponed until Saturday, June 9th, 1866, and the sale thereof until Tuesday, June 26th, 1866. By order of the Board of Trustees.

ap28 W. D. ROOT, Secretary.

Green Gold and Silver Mining Company. Location of Works and Mine: Gold Hill District, Storey County, Nevada.

NOTICE.—The Annual Meeting of the Stockholders of the above Company, for the election of Trustees, etc., will be held on WEDNESDAY, the 6th day of June, 1860, at 12 o'clock M., at the office of the Company, No. 606 Montgomery street, San Francisco. Proxies to be filed with the Secretary. JOHN HENDERSON, President.

R. H. SMITH, Secretary. my5

Great Basin Mining Company.—Location of Works: Humboldt County, Nevada. Office, southeast corner of Pine and Montgomery streets, San Francisco, California.

Notice is hereby given, that at a meeting of the Trustees of said Company, held May 2d, 1866, an assessment of nine cents was levied upon each and very share of the capital stock of the said company, payable immediately, in United States gold coin, to the Secretary, at his office, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale, at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of dvertising and expenses of the sale. By order of the Board of Trustees.

S. T. KINO, Secretary *pro tem.*,

Office, S. E. corner Pine and Montgomery streets, San Francisco. my5-5w

Gold Hill Tunneling Gold and Silver Mining Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

Notice is hereby given, that at a meeting of tha Bonrd of Trustees of said Company, held on the 10th day of May, 1866, an assessment (No. 7) of one dollar per share was levied upon tha capital stock of said company, payable immediately in United States gold coin, to the Secretary, R. WAGENER, 415 Montgomery street, San Francisco, California, or to the Superintendent, Mr. F. CHAPPELLET, Gold Hill, Nevada.

Any stock upon which said assessment shall remain unpaid on the 15th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 10th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of tha Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal.

A discount of three (3) per cent. will be allowed on all payments made on the above assessment on or before Monday, the 21st day of May, 1866. By order of the Board of Trustees.

my12 R. WEGENER, Secretary.

I. X. L. Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Wm West	130	7½	$11 75
George Morehouse	143	10	15 00
Osmond Johnson	190	2	3 00
Ole Halvorson	192	5	7 50
A Wagner	207	5	7 50
Chas Saunders	224	5	7 50
H G Blaisdell	236	10	15 50
H G Blaisdell	237	10	15 00

And in accordanee with law and aa order of the Board of Trustees, made on the 5th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will bo sold at public auctiou, at the office of the Company, No. 338 Montgomery street, on the 7th day of June, 1800, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary.

Office, 338 Monlgomery street, San Francisco, Cal. my19

Kentucky Copper Mining Company, Mine Felix District, Calaveras County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 2d day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Gige, J C	233	19	$19 00
Hollmann, Victor	219	22	22 00
Kocls, A E	22	50	50 00
Kunast, A	212	10	10 00
Kunast, A	220	5	5 00
Kunast, A	221	10	10 00
Kunast, A	272	10	10 00
Rudman, John	46	22	22 00
Schmidt, L C	24	10	10 00
Schmidt, L C	134	10	10 00
Schmidt, L C	156	5	5 00
Schmidt, P R	23	20	20 00
Schmidt, P R	104	20	20 00
Schmidt, P R	122	10	10 00
Schmidt, P B	155	10	10 00
Schmidt, P R	274	100	100 00
Schmidt, P R	276	25	25 00
Smith, Chas	60	50	50 00
Sc hilke, J A	270	25	25 00
Wallace, John	241	20	20 00

And in accordanee with law and an order of the Board of Trustees, made on the 21 day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of Cebb & Sinton, No. 406 Montgomery street, San Francisco, Cal., on the 20th day of May, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. A. BAUER, Secretary.

Office, 644 Washington Street, San Francisco. my12

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, California

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 31st day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Estate of John J Williams	2	7½	$1 87
James Gallagher	45	5	1 25
James Gallagher	46	5	1 25
Mrs A M Harris	73	5	1 25
Mrs A M Harris	74	5	1 25
Estate of Henry Mercer	123	5	1 25
Ceo Lorenz	168	5	1 25
Geo Day	171	5	1 25
A H Powers	174	10	2 50
Charles Luciene	229	2½	62
John W Armstrong	213	5	1 25
T M Post	219	10	2 50
A M & C T Harris	220	7½	1 87
Wm Gallagher	233	10	2 50
Daniel Davidson	244	5	1 25

And in accordance with law, and an order of the Board of Trustees, made on the 31st day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Secretary, No. 305 Montgomery street, San Francisco, on the 5th day of June, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. S. LUTY, Secretary.

Office, 305 Monlgomery street, corner of Pine, San Francisco. my19

Important to Californians.—Many inventors have lately had their claims for Patents seriously (and in some cases fatally) delayed by the unqualification of agents who have not complied with the Government license and revenue laws, as well as other new and imperative regulations. These discrepancies, although arising from the inexperiences of honest agents, are none the less dangerous to applicants for patents, whose safest course is to trust their business with none but active and experienced solicitors. THE MINING AND SCIENTIFIC PRESS PATENT AGENCY has strictly complied with the requisitions of the Department, and properly filed all necessary papers as Claim Agents.

Leland Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin to the Secretary, at his office in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal m19

Lady of the Lake Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin, to the Secretary, at his office in San Francisco., Cal.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery Street, San Francisco, Cal. my19

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary, C. HEYWOOD 311 Market street, San Francisco, or to O. W. RUSSELL, Crcs cent City.

Any stock upon which said assessment shall remain unpaid on the 9th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 28th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. HEYWOOD. Secretary.

Office, 311 Market street, San Francisco, Cal. my5

Mina Rica de las Flores Mining and Mill Company, Camp Flores, near West Point, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the eighth day of May, 1866, an assessment (No. 12) of one dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, S. DICKINSON, at the office of the Company, No. 423 Washington street, Room No. 13, up stairs, San Francisco, between the hours of 11 A. M. and 1 P. M.

Any stock upon which said assessment shall remain unpaid on the nineteenth day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the sixteenth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. DICKINSON Secretary.

Office, 423 Washington street, San Francisco, Cal.

San Francisco, May 9, 1866. my12-6w

Nuestra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, (in the Drug store, near Dupont,) or to the Treasurer, A. HIMMELMANN, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 2d day of June, 1866, and unless payment shall be made before, will be sold on the 20th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug store, near Dupont street,) San Francisco, Cal. ap28

North Star Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

NOTICE.—There are delinquent, upon the following described stock, on account of assessment levied on the 9th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
John W Harker	350	6	$150 00
John W Harker	455	6½	162 50
G F Sharp	447	2	50 00
Mary F Breize	243	4½	112 50
K B Goddard	251	9¼	231 25
J P Sharpstein	441	15	375 00

And in accordance with law, and an order of the Board of Trustees, made on the 9th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on Wednesday, the 6th day of June, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

COTTLIEB BEER, Secretary.

Office, 226 Front street, San Francisco. my12

MONEY BY MAIL.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

Old Colony Quartz Mining Company.—Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of May, 1866, an assessment of three (3) dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, No. 623 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. O. HOWARD, Secretary.

Office, 623 Montgomery street, San Francisco. my19

Office Providence Gold and Silver Mining Company.

NOTICE.—The annual meeting of the Stockholders of the above Company, for the purpose of electing Trustees, and transacting other necessary business, will be held at the Office of the Company, No. 10 Government House, San Francisco, on the 20th day of JUNE, 1866, at 2 o'clock P. M. of that day.

F. T. FOLSOM, President.

J. M. BUFFINGTON, Secretary.

San Francisco, May 19th, 1866. my19

Rippon Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 8th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the company, 338 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JAMES C. DAYLEY, Secretary,

Office, 338 Montgomery street, San Francisco, Cal. my12

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

Sierra Valley Gold and Silver Mining Company, Plumas County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 26th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately, in gold coin of the United States of America, to the Secretary, at the office of the company, No. 607 Washington street, in the city and county of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 31st day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 18th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

A. NOEL, Secretary.

Office, 607 Washington street, San Francisco, Cal. apr28

Whitman Gold and Silver Mining Company. Location of Works: Indian Springs District, Lyon County, Nevada.

Notice is hereby given that the Annual Meeting of the Shareholders of the Whitman Gold and Silver Mining Company, for the election of Trustees and the transaction of such other business as may be presented, will be held at the office of the President of the Company, CHARLES MAYNE, ESQ., No. 535 Clay street, San Francisco, on TUESDAY, the 5th day of June, 1866, at the hour of 3 P. M.

Per order

THOS. W. COLBURN,

Secretary Whitman C. & S. M. Co.

San Francisco, Cal., May 12th, 1866. my12 4t

Yankee Blade Mining Company, Reese River Mining District, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 329 Montgomery street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the ninth (9) day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. T. ATWOOD, Secretary.

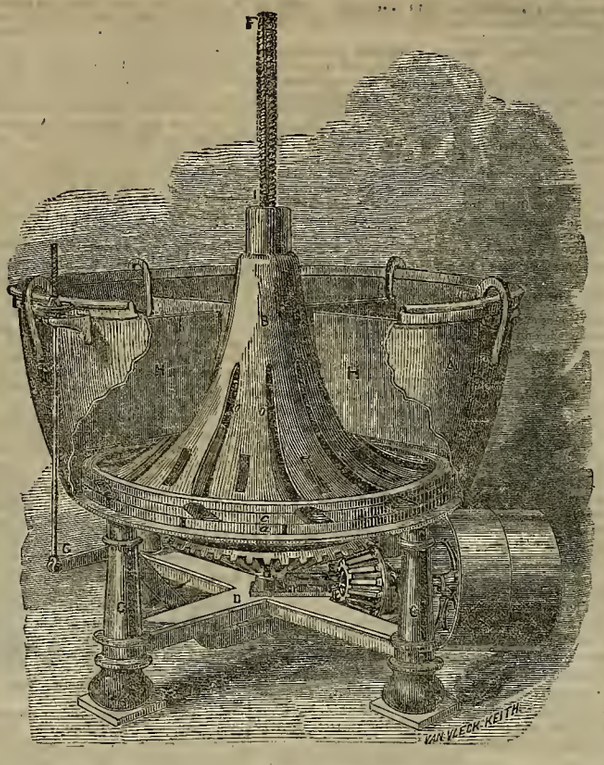
Office, No. 329 Montgomery street, San Francisco. my19

Economy in Advertising.—The MINING AND SCIENTIFIC PRESS is the best and most ECONOMICAL mining advertising medium in this city. Our terms are less than ONE-HALF the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The PRESS contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Book Printing should be considered and treated as one of the higher branches of the "Art of Arts," and its execution entrusted only to experienced and intelligent workmen. Strict attention will be given to all orders for BOOK AND PAMPHLET PRINTING entrusted to the Mining and Scientific Press Job Office.

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,



Ths relativs grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 98 and 110.

That is, the respective mullers heing of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will rednce one hundred and seventy-seven tons of ore, ths Flat Bottomed Pan ninety-eight tons, and the Conical Pan one hundred and ten tons to ths same degree of fineness in the same time.

The wear to the Shocs and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of ths grinding plates has been attained in no other than that of the Tractory form—nor can it he.

Another property of excellence in this machine is that the metal or substance to he amalgamated passes *direct* from the grinding surfaces into ths quicksilver; thus excluding the possibility of its hecoming coated with any foreign substances, after having been hurnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in nse.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

Machinery.

SAVE YOUR MONEY AND BUY,

For $100!

HUNTER'S

Premium Cnocentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

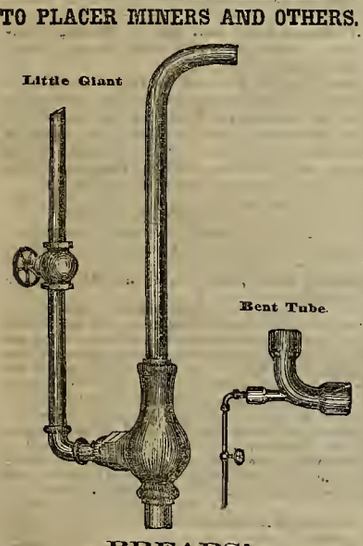
THE ADOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, therehy requiring less power and speed. As Improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 135 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent. more sulphnrets than any Coneentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125, For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 118 Washington street, below Davis, where ALBERT JACOBS will fill their orders promptly.

ANDREW HUNTER,
17v12-tf Inventor.

TO PLACER MINERS AND OTHERS.



BREARS'

Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 320 Pine street.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 245 First street, San Francisco.

LIST OF PRICES:

Little Giant.		Bent Tube.	
Brass	$65	Iron, 4 in di	$100
Iron	50	" 3 in di	75
		" 2 in di	50
		" 1½ in. di	35
		Brass, 1 in di	25

13-v12.

Pacific Forge Company.

FORGING AND IRON WORK.

THE PACIFIC FORGE COMPANY HAVE JUST ERECTed, in this city, on Fourteenth street, near the machine shop of the San Jose Railroad, a large establishment for the purpose of forging and working in wrought iron. Our hammer is the largest upon this coast, and we are prepared to manufacture, at short notice, all kinds of heavy forgings, car axles, shafts, steamboat cranks, piston-rods, wagon axles, and other similar work. This is the first general shop of the kind created in this State, and we solicit the patronage of the public. All orders executed at reasonable rates, and with promptness and satisfaction. 19v12 3m

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

LEFFEL'S

American Double Turbine

THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction whenever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall. Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

KNAPP & GRANT,
—ALSO— San Francisco.

Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by

KNAPP & GRANT,
12v12-3m San Francisco.

Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK, EMbracing all Mode n Improvements, suitable for Mining, Milling, or other Purposes. Will be sold at Manufacturers' rates and charges.

Apply to A. E. CRANE,
16v12-3m 310 Washington Street, up stairs.

FOR SALE

A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

Cotton-Filled Gum Belting,

3, 4, and 5-Ply,

FROM 4 TO 22-INCH,

IN LIBERAL SUPPLY.

FOR SALE BY

GILLIG, MOTT & CO.,

Corner C and Taylor streets,

VIRGINIA, NEVADA,

—AND—

Nos. 148 AND 150 J STREET,

19v12-tf SACRAMENTO, CALIFORNIA.

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,
Virginia City, Nevada,
15v11tf Through Wells, Fargo & Co's Express.

BRUCKNER'S

Mechanical Roasting Furnace

AWARDED A

PREMIUM SILVER MEDAL

—BY THE—

The Mechanics' Institute.

THESE FURNACES ARE NOW MANUFACTURED AFter an improved mode of construeton, which

GREATLY SIMPLIFIES THEIR OPERATION,

and afford a much larger oxydizing surface to the action of heat and atmosphere.

The weight of a Furnace nine feet long by four feet in diameter does not exeeed one ton.

THE IMPROVED FURNACE

will soon be more fully described and illustrated in the columns of the MINING AND SCIENTIFIC PRESS.

Parties wishing to erect such Furnaees, are requested to leave their orders with

T. KALLENBERG,
19v12 416 Market street, San Francisco.

To Ditchmen, Millmen and Others Requiring IRON PIPE.

M. R. ROSE, CORNER OF 9TH AND K STREETS, Sacramento City, has facilities unsurpassed on this coast for the manufacture of IRON PIPE of every description. He also has on hand a deep well FORCE PUMP, of his own invention and manufacture, well adapted for oil wells. His tools being portable, pipe can be manufactured on the ground. 19v12

[Written for the Mining and Scientific Press.]

Letter from Yuba County.

THE BROWN'S VALLEY MINES.

EDITORS PRESS:—Among the mines in rich quartz-hearing sections deserving mention, ars those situated at this place. As yet no extended notice has been taken of them, though from their richness and character they havs dserved it. There are in the town nnd vicinity five mills, some of them large nnd flourishing. The most important mins, in point of wealth and permanency, is the

JEFFERSON,

Sitnated just sonth of the town, npon the most valuable pnrt of ths ledgs yet discovered. Escorted hy the saperintendent, Mr. W. P. Jones, we examined the mine and mill, and were satisfied from nppearances and facts kindly furnished, that this mine is destined to he very rich and lasting. The ledge is of very soft, easily-crushed quartz, and is, from present appearances, inexhaustible in quantity. The direction of the ledgs is from north to south, with an eastern dip, upon which an incline 410 feet deep hns heen sunk, and from which sevea drifts havs heen extended to the north and south. The quartz is of a dark lead color, is almost entirely free from crystalization, and is so soft that large particles are easily broken in the fingers. Some portions of the lead is very rich in special deposits, the gold heing discovered hy the naked eye. As a hopeful evidsnce of the permanency of the miue, the ledge increases in extent ns the incline is carried forwnrd. To facilitats operations, and to he prepnred for any emergency, the shaft is carried one hundred feet in constant advance of ths drifts. The rock now being crushed is called common rock, and yields fifteen dollars per ton; from twenty to thirty tons are crushed per day. The mill is in constant operation with twelve stamps, which, together with the pumping and hoisting works, are driven by an engine of 30-horss power. It is in good condition, but is hardly of sufficient capacity to carry on the operations as fast as the company desire. The stamps weigh 750 pounds each; Varney's pans nre used. To iucrease operations, ths company have contracted for new machinery and will have it erected soon. The new engins will be of 60-horse power, nnd will be used for pumping and hoisting. The mill nnd miue furnish employment for ahout thirty-five men.

Ths next miue here is the

PENNSYLVANIA,

Just one hundred and eighty feet north from ths Jefferson. Success has not crowned the efforts of this company yet; hut a goodly amount of hope acts as a stimulant to energetic labor. The indications are favorahle to the supposition that the ledge of the Jefferson extends tbrough this claim, and an incline dippiag to the east has hcen sunk at an angle of 45°, with the hope of reaching the northern section of the ledge. The incline is now 375 feet deep, being thirty-five feet less than that of the Jefferson. Mr. John Howell, the superintendent, expressed the hope that twenty feet more would open a chnmher of pay rock. Four drifts to the north have been extended from the incline at the mill, and ten additional inclines have been sunk a short distance further nortb. The third incline developed some good rock, yielding from eight to fourteen dollars per ton. No machinery has been erected on this incliae, and its value awaits future development. The operations of the minc have been greatly hindered by vast qnantities of water pouring in faster than two 6-inch pumps could drain it. The water wns pumped out on the 13th instant, aad workmen nre now engnged in exteading the drift. The mill has eight stamps (weigbing 650 ponnds each) aud ten Chils mills, which are used instead of paus. Ths rock presents the same characteristics as ths Jefferson. A beautiful specimen of rich quartz was presented me by one of the employees, for whose kindness I am very grateful. Next in order came the

DANNYBORGE.

The name sounds Scotch, but is Danish. This is the third mill and mine. It lies northwest of tbe town, but a short distance from the main street. The bistory of this miae is somewbat checksred—at one time paying handsome divi-

dends, and at others demanding severe assessmeots. At one stage of its development the moothly yield was about $7,000, besides expeoses, und was a source of large reveooe to its owners. The quartz fouod in the ledge belonging to the mine is rich, bot pitches oboot in such spasmodic changes that it is hurd to follow, the gold being fonnd in what is here called chimneys. No drifting has been done for months, as the mine has been filled with water, which entered iu such quantities as to defy all efforts of the pumps to decrease it. The pumps huve been in constant action all the time, and as the dry season advances, are gaining on the flow, aod the prospect now is that twenty-five more days will drain it sofficiently to allow operations to be recommeoced io the ioclioe. The shaft in this mine dips oorth. The pay streak found, before hindered by the water, was 120 feet wide, over 100 feet below the surface, and pitched east, cutting the shaft at right angles. The shaft is 425 feet deep, with an angle of 40°. The engine used for driving the batteries, hoisting and pumping, is 20-horse power; two 6 inch pumps have been used for pumping. The batteries have twelve stamps (750 lbs each); two Chile mills are used here, same as in the Pennsylvania. As soon as the water is lowered sufficieotly, the work in the drifts will commence, nnd the stamps be put io motion. The gentlemanly superintendent, Mr. Howell—who also superintends the Pennsylvania—expresses the belief that this mine will show in the future the same value that it did in its earlier history, and is confident that the best is yet to be, when further labor increases the base of operations. Of course, nnything prospective, no matter how flattering as evidences, is never a certainty; yet, the past aod present prospects of this mine are favorable enough to keep up a lively anticipation of future richness, and the proprietors are satisfied with it as it stands developed to the present point. Mr. Reis, of the Cosmopolitan, at one time owned one-third interest, but has now sold out. The superintendent gave to your correspondent a fine large quartz specimen, filled full of goldeo stars, and beautiful as it was rich. This was a sample of some of the rock takeu from the ledge some time since. The character of the rock is somewhat different from that of other mines, being more hard and flinty aod containing coosiderable quantity of sulphurets. Pockets are sometimes fouod containing large deposits, and in considerable quantity.

YUBA MILL AND MINE,

Guided by Mr. G. H. Leland, the very agreeable and genial superintendent. We visited this mine and examined its parts. It is situated about half a mile oorth of the Dannyborge, aud is supposed to be upon the same ledge. Lying between these mioes are the Daoiel Webster and Paragon, that are as yet simple claims, no labor being done more than sufficieot to hold them. The operations at the Yuba are discontinued for the present, but are to commence about the 24th of this month. From the present incline rock has been takeo which yielded $33 per ton, and prospects are hopeful of increase in quantity. The mill is new and in good working trim. The engine, of 30-horse power, is of the finest style, and was built to order by the Pacific Works of your city.

SODIUM AMALGAM.

Mr. Leland, acting from suggestions io your journal, has been giving attention to the action of sodium-amalgam, nnd is satisfied that it is just the thing for saving the gold io the fine floor state.

CONCLUSION.

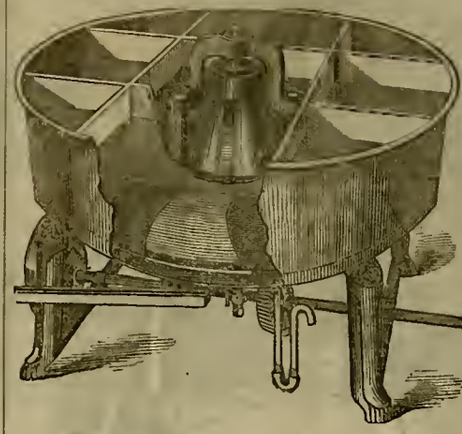
I forgot to state in the proper connection that the Jefferson is paying moothly divideods of ten dollars per share. I have fouod from conversation with the reliable practical men here, that capital to develop is the maio deficiency, and that until the attention of capitalists can be obtained, that the majority of the mines will remain io an undeveloped state. Though many of them may be worth millions, the local capital is insufficient to their development. Many of our moneyed men who give so much attention to mines of prospective wealth in the distant territories, might do better by confining their operations nearer home, aod by atteotion to home ioterests might work with advantage to themselves and the State. W.

Brown's Valley, May 15, 1866.

BORAX IN LAKE COUNTY.—The Napa *Register* says the Company owning the borax mines in Lake county, have made extensive preparations for takiog out large quantities of borax this season. This mineral is dug io crystalized masses from the bottom of Clear Lake, where it is deposited by springs. A large movable coffer dam is suok in certain parts of the lake, which, on being pumped dry, allows the workoen to search the muddy bottom for borax crystals. These are afterward purified in vats aod paos and sent to Sao Francisco *via* Napa City. Thirty teams will sooo be running between Napa City and Clear Lake, for the transportatioo of this mioeral, making weekly trips of a ton to a load.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of EIGHT YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders,

3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold aod mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of

ISRAEL W. KNOX, OR
W. A. PALMER, Inventors,
At the Golden State Iron Works, No. 19 First street, San Francisco.

14v13-p12q

HEUSTON, HASTINGS & CO.,

—THE—

FASHIONABLE CLOTHIERS

OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLES

—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12-3m ☞ At Reduced Prices. ☜

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE

FOR STATES, TOWNS AND COUNTIES.

For the Best Chimney Top

Ever invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel.

Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee,

B. A. HENRIKSEN,
Or J. E. JOERGENSEN,
12v12-3m No. 328 Kearny street, San Francisco.

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.
15v12-3m

BAUX & GUIOD'S

Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Grail's Gravel Cement Works, Nevada county; Wallman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6d

---

Prater's Concentrator.

NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Diasmore's Machine and Iron Works,
SAN FRANCISCO.

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

Address: MORGAN HUNGERFORD,
10-v12 San Francisco, Cal.

IRON!

Glasgow Iron and Metal

IMPORTING COMPANY,

Nos. 25 and 27 Fremont street, San Francisco,

Keep constantly on hand a large assortment of

Bar Iron,
Boiler Tubes,
Anvils,
Cast Steel, Etc.,

Which they offer to the trade on liberal terms. 18v12-3m

NEW MINING PUMP.

Excelsior Double-Acting Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind-mill, horse, or steam-power.

No. 1—Cylinder 2½ in., stroke 6 in.
No 2—Cylinder 3 in, stroke 7 in.
No. 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No. 5—Cylinder 6 in., stroke 18 in.

The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,
12v12-3m 120 Front street,

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setlers for themselves, at the PACIFIC FOUNDRY,
1v1 San Francisco.

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,
BLAKE & TYLER,
Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

FAIRBANK'S

HAY,
COAL,
CATTLE,
MINERS', AND
GROCERS'
Scales.

We would call the attention of Miners to our large scales for WEIGHING LOADED WAGONS, of from 10,000 to 20,000 lbs capacity.

Manufacturers' Branch House,
FAIRBANKS & HUTCHINSON,
19v12-3m 334 Montgomery street.

SPLENDID
HOMESTEADS!
IN THE COUNTRY.

Twenty-Two Acre Blocks

Adjoining the beautiful Town of

San Leandro, Harlan's Addition

BUT ONE HOUR'S RIDE FROM SAN FRANCISCO.

Property but a few rods from the Railroad Depot. Good schools, good water, splendid view, free from wind and dust, and the best of soil.

☞ Title—U. S. Patent. ☜

A rare chance to buy a beautiful Homestead for your wife and little ones, at a low figure.

—ALSO—

Improved Homesteads and Farms of 20, 50 or 100 Acres,

In Alameda county. The most desirable locations in the State. Apply to or address

G. E. SMITH,
Notary Public and Searcher of Records.
Office, "Beaty House," (directly opposite the Court House.)
San Leandro. 19v12-3m

Judicious Resolutions.

Several of our most substantial and judiciously managed mining corporations have passed resolutions, since the approval of the new assessment law, requiring all notice of assessments and sales to be published in the MINING AND SCIENTIFIC PRESS, the only thorough (daily or weekly) mining journal on this coast. Our efforts to concentrate all mining advertisements in one paper, for the economical convenience of shareholders and assessment payers, are meeting with decided success. Those who believe in supporting the mining cause, should bear our paper in mind, and bring up this subject at the next trustee or shareholders' meeting.

San Francisco, April 7th, 1866.

New Mining Laws of California and Nevada.

We have just issued, in cheap edition, the new laws relating to mining and corporations in California and Nevada, passed in 1865-6. Some of these laws are of the highest importance to parties interested in the matter of locating and holding claims, and prospecting mines, in these States. Copies sent by mail. Price, 25 cents.

Address, DEWEY & Co., Patent Agents.
San Francisco, May 1st, 1866.

FOSSILS IN OREGON.—The Dalles *Mountaineer* of April 27th, publishes a communication from L. L. Rowland in regard to the recent discovery of some fossils. We quote:

"Col. Fulton and myself took this morning from a newly washed gully, in the hills near Ten Mile creek, from its long resting place, some eight or ten feet below the natural surface of the earth, a huge tusk, six feet long and twenty-three inches in circumference at the large end, and to all appearance, considerably shortened by decay. While taking ont the aforesaid tusk, another was found within a few rods of the same spot, about sixteen feet beneath the surface of the earth, much larger than the first; but not having time to take it ont at once its length and dimensions are yet undetermined. On returning from the scene of the discovery of these tusks, another was found near by, of about the size of the largest of those mentioned above.

A few days ago, at abont a mile from the place where our discoveries were made, a large piece of a tusk was found projecting from a gravel-bank at the depth of twenty-five feet from the natural surface of the ground."

JOHN SWETT, Esq., State Superintendent of Public Schools, is making a tour of the Northern counties, delivering lectures.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

STOCK CERTIFICATES,
STOCK TRANSFER JOURNALS,
STOCK LEDGERS,
ASSESSMENT RECEIPTS,

And all other Blanks, Blank Books, etc., required by Mining and other Corporations, kept on hand or printed to order on short notice, at moderate prices, at the office of the MINING AND SCIENTIFIC PRESS.

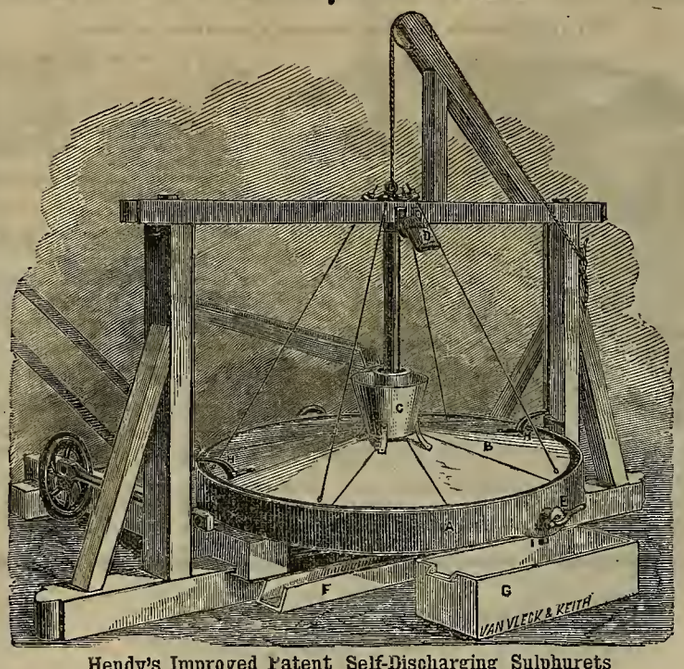
SUBSCRIBE FOR IT.—The large, illustrated sixty-four column weekly newspaper—the San Francisco MINING AND SCIENTIFIC PRESS—should be taken by every miner, prospector, and intelligent citizen throughout Colorado, as it gives a mint of most useful information to be gained no other way, on mining matters generally.—[Rocky Mountain News.

SMOKE THE
PATENT
RUSSIAN
CIGARETTES.
manufactured by
GIBB & STAHL
129 Kearny Street,
San Francisco
16v12-3m ☞For sale in all the Cigar Stores.☜

TRY IT 50 PER-CENT SAVED BY USING
STANDARD SOAP COMPANY'S
"WASHING POWDER."

THIS POWDER IS SUPERIOR TO ALL OTHER PREparations for washing and cleansing. It is made of pure material, and contains nothing that will injure the finest fabric. Equally as good for using in hard as soft water. One pound will make three gallons of beautiful soft soap. Put up in wrappers of 1-lb each, and in wooden boxes of 10-lbs bulk. Ask your grocer for a package, and test its virtue. Manufactured at 207 Commercial street, San Francisco. 15v12q

NOTICE TO QUARTZ MINERS.



Hendy's Improved Patent Self-Discharging Sulphurets
PRATER CONCENTRATOR
Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " " "
U. S. REESE RIVER MILL, Austin, "
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO. " "
CONEY MILL, Jackson, Amador County.
Messrs. TUBBS & CO'S MILL, San Andreas, Amador Co.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.
CARROL & ASPINWALL MILL, Reese River, Nevada.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:

One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
Six Concentrators for the Benton Mill, Bear Valley, Mariposa Co; ordered by Messrs Dodge & Bro, San Francisco.
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.

☞For explanation of the above engraving, and other particulars, send for a Circular.

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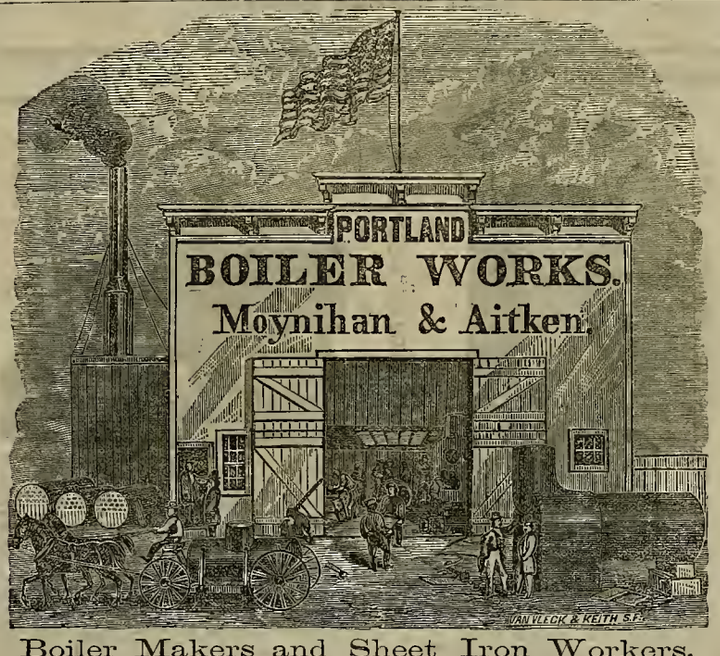

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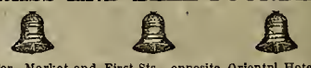

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SAN FRANCISCO, SATURDAY, JUNE 2, 1866.

VOLUME XII. Number 22.

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SIEMENS' HEATING FURNAOE.

The *American Artizan*, New York, sends us following illustrated description (by Dr. Crace Calvert) of aa important improvoment in heating furnaces, invented by Mr. C. W. Siemens, F.R.S, of Great George street, London:

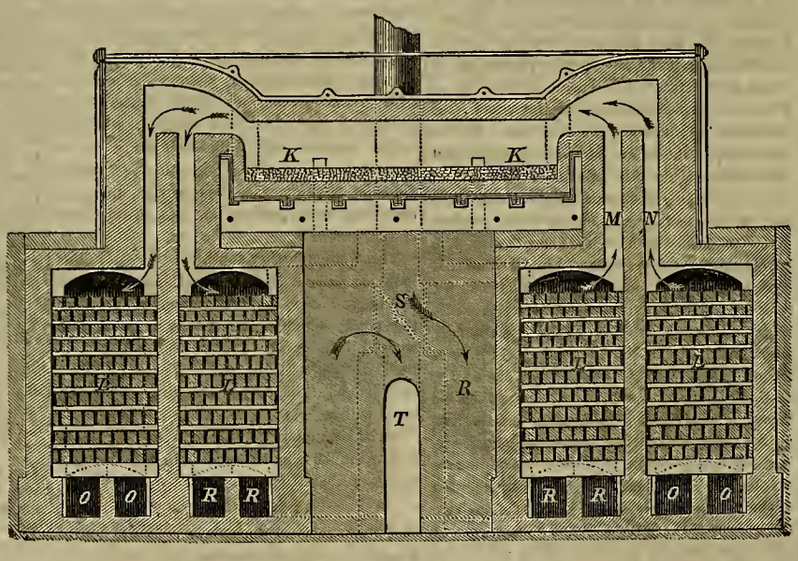
"The gas-producer and furnace are quite distinct, and may he placed at any convenicut distance from each other. The fuel is supplied at intervals of about two hoars through covered openings, and descends gradually on an inclined plan, which is set at an inclination to suit the kind of fael used. The upper portion of the incliae is made solid, being formed of iron plates covered with fire-brick, but the lower portion is an open grate formed of horizontal flat steps. The opening under the lowor step is made larger than the others, to enable clinkers to be withdrawn. The small stoppered holes at the front and at the top of the producer are provided to allow of putting in an iron har occasionslly to break ap the mass of fuel and detach clinkers from the side-walls. Each producer is capable of converting daily about two tons of luel into a combustible gas, which passes off into the main gas flue leading to the farnaces.

"The action of the gas-producer in working is as follows: The fuel descending slowly on the inclined plane becomes heated and parts with its volatile constituents, the hydro-carbon gases, water, ammonia, aad a small proportion of carbonic acid, which are the same as would be evolved from it in a gas retort. There now remains from 60 to 70 per cent of purely carbonaceous matter to be disposed of, which is accomplished by the current of nir slowly entering through the grate, producing regular combustion immediately upoa the grate; but the carbonic acid (an iacnmbustible gas) thus produced having to pass slowly through a layer of incandescent luel from two to three feet thick, takes up another equivalent of carbon, and is thus transformed into carbonic oxyd, which passes off with the other combustible gases to the furnaces. For every cubic foot of carbonic oxyd thus produced, taking the atmosphere to consist of one-fifth part by volums of oxygen and four-fifths of nitrogen, two cubic feet of incombustible nitrogeu pass also through the grate, tendiag greatly to diminish the richness or heating power of the gas. Not all the carbonaceous portion of the fuel is, however, volatilized on such disadvantageous terms; for water is brought to the foot of the grate by a pipe, which, absorbing the spare heat from the fire, is converted into steam, and each cubic foot of steam, in traversing the layer of from two to three feet of incandescent fuel, is decomposed into a mixture consisting of one cubic foot of hydrogen, and nearly an equal volume of carbonic oxyd, with a variable small proportion of carbonic acid. Thus one cubic foot of steam yields as much inflammable gas as five cubic fest of atmospheric air; but this one operation is dependent upon the other, inasmuch as the passage of air through the fire is attended with the generation of heat, whereas the production of the water gases, as well as the evolution of the hydro-carbons, is carried on at the expense of heat. The generation of steam from the water, being dependent on the amount of heat in the fire, regulates itself naturally to the requirements; and the total production of combustible gases varies with the admission of air, and, since the admission of air into the grate depends in its turn upon the withdrawal of the gases evolved in the producer, the production of the combustible gases is entirely regulated by the demand for them.

"The gas made in these producers has been frequently carefully analyzed, and the average constituents of one hundred parts have been found as follows: Carbonic acid, 4·1; oxygen 0·4; carbaaic oxid, 23·7; carbureted hydrogen, 2·2; hydrogen, 8·0; nitrogen, 61.5; total, 99·9.

"The furnaces are applicable for all purposes where intease heat is required, such as for glass-houses, puddling, heating iron and steel, iron melting for foundry purposes, steel melting, muffles, and copper smelting. In all applications the furnaces are of the same construction in principle, the arrangements only varying with the different operations to be carried on in the heating-chamber. The heating-furnace has been selected for illustration. Underneath the heating-chamber, K, are placed transversely the four regeaerators, L, L, L, L, which are chambers filled with fire bricks built up with spaces between them. The regenerators work ia pairs, the two under the right hand end of the furnace communicating with that end of the heatiag-chamber, while the other two communicats with the opposite end. The gas passes from the maia gas flue through the reversing-valve, S, into the flues, R, R, at the bottom of one of the regenerators, L, up through which it passes to the port, M. Air is also admitted through a reversing-valve at the back of S (not shown in the figure), thence into the flues, O, O, up through the second regenerator, L, to the port, N, where it meets with the gas, mingles with it, and produces aa intense and uniform flame, which distributes itself all over the heating-chamber, K. The products of combustion, together with the excess or waste heat of the furnace, instead of being passed, as in ordinary furnaces, up the stack, and either entirely thrown away or only partially utilized, are carried down into the other pair of regenerators, where they are deprived of their heat, and thence proceed through the reversing-valves to the chimney by the flue, T.

"When one pair of regenerators has become considerably heated by the passage of the hot products of combustion for some time, and the opposite pair correspondingly cooled by the upward passage of the cold gas and air, the valves are reversed, and the currents of gas and air then pass upward through the regenerators last heated, whereas the products of combustion pass through those opposite. The process of reversing is repeated at fixed intervals, generally every half hour, so that two of the regenerators are always being cooled by the gas and air taking up the deposited heat and carrying it back to the furnace, and two always being heated by the passage of the hot products of combustion passing down to the chimney and depositing their heat on their way there. The flame in the heating-chamber is uniform throughout, and perfectly free from all extraneous matter. Its chemical nature is also perfectly under command by means of gas and air regulating valves (not shown in the engraving), so that the most delicate operations can be carried on with great uniformity. The gas and air reach the heating-chamber (after passing through the regenerators) at nearly the heat of that chamber itself, and in burning, in addition to the temperature due to their mutual chemical action, is added that they have taken up in passing through the regenerators, so that an intensity of heat is obtained which, unless moderated on purpose, would fuse furnace and all exposed to its action. The products of combustion are so completely deprived of the heat they brought out of the heating-chamber, K, by passing among the regenerator bricks, that the heat in the chimney-flue is seldom sufficient to singe wood; the economy is therefore due to the fact that little or no heat is thrown away up the chimney, as in the ordinary furnaces, and also to the perfect combustion of the fuel, which is evidenced by the total absence of smoke from the stack; whereas in the common furnaces the combustion is so imperfect that clouds of powdered carbon, in the form of smoke, envelop all manufacturing towns, and gases are allowed to escape with two-thirds of their heating power undeveloped. The saving of fuel in these furnaces, as compared to the ordinary kind, ranges between forty and sixty per cent. in weight, according to the fael used. In many instances an additional saving can be made in the cost of the fuel by using inferior qualities, such as coal and coke dust, lignite, and peat. The intensity of the heat, purity of the flame, and the absence of cutting draughts in the heating-chamber, is of great advantage for all metallurgical operations, tending greatly to improve the quality of the produce, and occasioning a saving of about five per cent. in the wasts of the metal treated in puddling and iron re-heating furnaces, etc."



SEIMEN'S HEATING FURNACE.

Prize Medal.—A very interesting ceremony took place at the close of the public examination of the Denman School on Thursday, at which sixteen medals were distributed to the same number of pupils who shall have attained the highest grade of scholarship with perfect deportment throughout the year. These medals are purchased from the annual proceeds of a fund of $1,000 which has been donated for that purpose by Mr. Denman, the Principal of that school. This Medal Fund has been established and will be managed on the same plan as the Franklin School Medal Fund of Boston, Massachusetts. The present was the first distribution of these medals.

The following are the pupils who obtained the medals this year:

Gold medal to Annie Compton, of the Graduating Class. Silver medal to Angie Crary, Bell Baxter and Louise Templeton, of the Graduating Class; Carrie Smith, of the first class; Adelia Curtis, of Miss Keith's class; Sarah D. Everding, of Miss Doud's class; Alexandrina Lyons, of Mrs. Pearson's class; Isabella Vizzard, of Mrs. Clapp's class; Candace Jenner, of Miss Williams' class; Mary E. Donnelly, of Miss Pattee's class; Matilda Clement, of Miss Sherman's class; Emily J. Johnson, of Miss S. Williams' class; Jennie C. Miller, of Mrs. Wood's class; Lelia K. Curtis, of Miss Chadbourne's class; Mary A. Lumsden, of Miss Bowen's class; and Caroline Hogg, of Miss Doud's class.

Dr. C. T. Jackson, of Boston, has been giving the Academy of Sciences in Paris an account of some of his observations in California and Nevada. He says the silver ores of Austin, Nevada, consist in the undecomposed portions of the veins of sulphats of silver and red sulphide of antimony. In decomposed parts of the vein are chloride, iodide and bromide, the latter being formed by double decomposition from the action of external influences. A fragment of the ore thrown into the fire of a blacksmith's forge is at once covered with spangles of reduced silver. At Austin all the veins are quartz ore and imbedded in feldspathic granite. Their thickness varies from a few inches to three feet. He had himself seen the ores yielding $1,300 to the ton, and the average was $200, the cost of extraction being $80 to the ton. The cost is high at Austin, because the ore has to be brought from the mountains a long way off. At Virginia City the ores yield only forty dollars per ton, but as they do not have to be roasted, the cost is less, and they are very profitable. Austin was unknown three years ago.

The Treasure Drift.—The treasure shipment by the steamer of Tuesday last was $1,328,069. The total shipments since the first of January last were $16,431,288; a decrease of $1,012,666, from the shipments during the same period last year.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

Atlantic Correspondence.

A NEW PROCESS.

Editors Press:—While you of the Pacific coast are diving down deep into the bowels of the earth, to get her hidden treasures, we of the Atlantic coast are devising some means to more easily work them, and my purpose in writing you at this time is to tell you what has been the results of experiments made by a gentleman of this city, in reducing gold, silver and copper ores, but more especially refractory silver and copper ores. Early in the fall of 1865 he came in possession of some argentiferous copper ores from the region of the Colorado River. These ores consist of several metals—gold, silver, copper, arsenic and antimony, held in pure quartz—which class of ores are the most difficult of all known for reduction.

Using the ordinary process, that of amalgamation, he was able to obtain but a small portion of silver; yet the ore assayed as high as $100 to the ton of silver, and contained about eight per cent. of copper. He then, after weighing the usual fluxes with it in crucibles, and obtaining fair results, determined to build a blast furnace, and observe what a very intense heat with certain fluxes would produce; and having studied the construction of furnaces here, erected one of suitable size for working with a hot blast. This was charged with ore, charcoal and fluxes, continuously, similar to a blast furnace for smelting iron, and tapped for slag and metal in the same way, and after a run of two hours the product was a metal resembling the white metal of the Swansea furnances, which is obtained from copper ore run through from reverberatory furnaces, a description of which may be found in Ures' dictionary and many recent works. This metal is separated into silver and copper by well-known processes—the sweating and the Pattison. Believing that by this method he could obtain better results than by any other, and presenting his views to several scientific gentlemen, they all agreed in the opinion that no rules of science were violated, and believed it would work a revolution in the reduction of ores. By this method all the metal is saved, for it is really *an assay by fire* on a large scale. All the materials used are found generally where gold, silver and copper ores are found, and the cost of erecting furnaces and procuring suitable machinery, will be small compared with the cost of work as at present conducted. Ores that contained sulphur to any extent are easily reduced, for the intense heat used and the presence of carbon in the fluxes, sets it free from the silver, so that it may be called a desulphurizing process. It is more certain than an assay, even, for there the sulphur is retained, as there is no blast containing oxygen, thrown in to disengage it. After a careful examination of all authorities, French, German, Spanish and English, the Commissioner of Patents became convinced that the method had never been used, and granted a patent for the same; rights for which are now offered for sale.

With the careful way in which this matter has been tested, we think every intelligent man must be convinced that here is a very great advance made in the separation of precious metals from ores, and one that must soon come into universal use. The sooner those interested in mining take it in hand, the sooner will they reap the benefit of the invention; for with it, all their metals can be saved, while now a large portion is lost. We enclose you a small piece of the metal as it came from the furnace, which contains of copper about 85 per cent. and silver 5 per cent.

Yours, Atlantic.

Buffalo, April 24, 1866.

Remarks.—The above description is not sufficiently detailed to enable us to see precisely upon what grounds this process has been decided new and a patent granted for it. There is certainly nothing new in the *general* metallurgy of the process as above indicated. A similar process has long been used in Europe for concentrating the precious metals from pyritiferous and other ores, so poor in gold and silver that they cannot be worked with profit by the ordinary means. Other methods however, are found to be more economical in Europe for richer ores, and the application of the above process upon a large scale to *ores of this class* may be new.

It is much more properly a *concentrating* than a desulphurizing process. The direct powers of carbon, as a desulphurizing agent, are by no means so great as many suppose, and the action of the oxygen in a blast furnace depends upon very numerous details in the management of the furnace, which without constant and minute attention are liable to vary every hour. Though this process indeed *resembles* the fire assay, it is far from being *identical* with it. In the latter the sulphur, etc., are effectually removed, not by the oxygen of the air, but by the action of the fluxes used.

The claim that "by this method *all* the metal is saved," cannot be true. There is a loss, and one which, with rich ores, is by no means insignificant. Circumstances in this country, however, are very different from what they are in Europe; and it is not unlikely that methods similar to this may be used with great advantage in certain localities, and with certain ores. This is a question which the situation of the mines, the character of the ore, and local circumstances generally must determine.

It would hardly be prudent to invest a large sum, at first, anywhere upon the chances of this with gold and silver ores. Full experiments should first be made upon a smaller scale, and future action be guided by the results of these.

[Written for the Mining and Scientific Press.]

The Trade of the Pacific Islands.

Editors Press:—There is a gentleman at present stopping in this city, who has lately arrived here from the Island of Tahiti. He is interested in a sugar plantation on the island and is intending to take back with him the machinery for a sugar mill, which the Miner's Foundry Co. have just completed, and which he proposes putting up on the plantation in which he is interested, adjacent to the town of Papeete, the principal town on the island. This gentleman is a native of Connecticut. He has resided upon the island for several years past and speaks highly of its climate, the fertility of its soil and the great inducements which there present themselves to enterprising persons. From parties who have conversed with him in reference to these matters, I understand that good lands can be bought there from the natives for about five dollars per acre, the title being protected by the Tahiti government, after thirty days notice of contract of sale is given. The government itself is now buying up these lands as fast as possible *and selling them again at the same price* to actual settlers, or to parties who intend improving them, giving also a long credit, if desired, at a low rate of interest. These lands are especially adapted to the raising of the sugar cane, coffee, rice and cotton of the first quality. The government pay a premium per head on coffee plants and loan money to planters to assist them in developing the resources of the country.

The island of Tabiti, formerly called Otaheite, is one of the Society Islands, being the largest one of the group; it is 108 miles in circumference and consists of two peninsulas, connected by an isthmus submerged at low water, and surrounded by coral reefs. The latitude of Point Venus is 17° 29′ 2″ S. longitude 149° 21′ W. In the north part of the island is a mountain 7,000 high, nearly twice as high as Mount Diablo. In view of the fact that owners of sugar plantations on this island come to San Francisco to get their machinery, is it not encouraging to all who have the welfare of this city at heart? This single fact shows what a great extent of country will eventually enter into commercial arrangements with us. This is but the beginning of a trade which will yet be entered into with hundreds of other islands scattered through the South Pacific. The Feejee Islands, 154 in number, of which, however, only 65 are inhabited, lying between long. 178° W. and 177° E., and between lat. 15° and 19° S., are of course much nearer to Australia than to us; yet, we may reasonably expect, even from the future sugar and cotton plantera of these now cannibal islands, our full share of their trade. The Sandwich Islands are right at our doors, and have just started in a path of enterprise which will, ere long, be of fabulous proportions, and which, combined with our trade with China, Japan and the South Sea islands, will make San Francisco one of the largest and richest cities in the world.

San Francisco, May 29th, 1866.

Observer.

[Written for the Mining and Scientific Press.]

From El Dorado County.

BY OUR TRAVELING CORRESPONDENT.

[Continued from Page 323.]

Messrs. Editors: Having set out on one of April's loveliest mornings from the Nevada Hotel, in El Dorado, not the least flourishing of the mining villages in this part of the country, I reached, after a ride of two miles south, a cluster of very promising little quartz lodes, but all so similar as to dip, size and in almost every other respect, that a description of two of them,

THE EMPIRE AND EL DORADO,

Will be sufficient to give a correct idea of the whole. The former is chiefly owned and has heretofore been worked profitably by Messrs. Burlingham & Goldy of Empire City—the locality of these claims—where they have a 10-stamp mill, pump, and an engine of 15-horse power. Owing to the absence of one of the partners from the State, the mill has for some time lain idle, but will resume operations in June. These gentlemen informed me that they had no refuse rock, the whole thickness of their lode which is about three feet, averaging $12 per ton, none of the rock falling short of $8; assorted, running as high as $100.

THE EL DORADO,

Running parallel with the Empire, belongs exclusively, I believe, to Messrs. Kelsey & McFee. They are working their ore with an arastra, and are getting satisfactory returns, the quartz, like that of the Empire, and other claims of the neighborhood, averaging throughout the whole width of their lode about $12 per ton; some crushings yielding as much as $75. Although the rock of this cluster is not so rich as that sometimes found in what are called "spotted leads," the uniformity in its value, taken in connection with the general diffusion of the metal, gives them a stamp of reliability and permanence not always possessed.

Three miles further south the Long Hollow lode was passed, having something less than 100 tons of good looking rock piled up near the shaft, which, I afterwards learned, had worked from $15 to $25 per ton. The lode was five feet in width, and appeared, though well defined, to be turned somewhat from the usual course.

On this same ridge, one mile further south and about six from El Dorado, in the vicinity of Sugar Loaf Mountain, is

THE HERMITAGE,

Not inappropriately named, as it is situated in a rather secluded spot, surrounded with everything attractive in the form of woodland, wild flowers and mountain scenery. It is owned by Dickermaa & Co., of Boston, and by Messrs. Eddy & Ellen of Diamond Springs, the latter old Californians, and it is entirely under the control of the owners, salaried officers not being deemed indispensable. They recently paid $32,000 for the mine, and have erected hoisting works, driven by a 15-horse engine, with one of Hansbrow's force and lifting pumps attached. Their 20-stamp mill, which is said to be a duplicate of that of the Church Union, already favorably noticed, is now nearly completed and their new 75-horse engine, which is on the ground, will be amply able to propel the twenty additional stamps to be put on the ensuing autumn. At least 3,000 tons of ore, thought to be worth at the lowest calculation $10 per ton, are now awaiting the stamps, from which a yield of from $25,000 to $30,000 is confidently expected—a sum sufficient to meet the whole cost of their entire improvements.

The lode has been opened in five or six different places, showing an average width of about ten feet. The main shaft is down 140 feet, with a drift from the 100-foot level south 75 feet, and another north from the same level 110 feet or thereabouts. Two other shafts have been sunk north of the main works to the depth of ninety feet each. I understood from responsible parties in the neighborhood that not less than $10,000 had been taken out of this mine by former owners, and that with the common pestle and hand mortar.

The present company have had a yield, by mill process, of $11.50 from some of their poorest rock—the amount of gold contained in the sulphurets not included. They have ascertained that a ton of their sulphurets, which about 200 tons of ore are expected to yield, is worth $1,500, an amount in itself not inconsiderable, and when added to the yield in free gold, gives an average equal to the best paying mines of the State. Mr. M. D. King of El Dorado, who kindly accompanied me in his own conveyance, lays claim to the first northern extension of the Hermitage. It has been opened by a shaft and prospects fully as well as the original, some choice specimens yielding $20 per pound, or at the rate of $40,000 per ton. "May he find a few tons of such," is my last and parting wish.

We now turn a little aside to notice

THE WHITEHEAD LEAD,

A claim heretofore inadvertently omitted, situated a mile east of the range last described, and the next north of the Church Union. Jamison & Co. of Empire City, to whom it belongs, are now actively at work upon it, taking out quartz similar to that of the Union, which has paid them as high as $21 per ton, sulphurets not included. Their shaft is sunk twenty-two feet, exhibiting a lode four feet wide of blue quartz, which is worked by an arastra driven by water power, both wood and water being found in abundance and near at hand.

THE DAVIDSON QUARTZ MINE,

Deriving its name from the location and principal owner of the claim, lies about one and a half miles north of El Dorado and consists of 2,700 feet. The main shaft, which has been sunk a little south of the principal chimney, is 105 feet in depth, inclusive of the lower portion which follows the lode on its natural incline to the east. At the 100-foot level it is four or five feet wide, having the usual clay seam or gouge on the foot wall, which is the ordinary black slate of the country. The true vein at this depth was only four inches thick, but some five feet lower, it had widened to at least two feet, and showed what is known here as the ribbon variety of quartz. This portion of the veinstone is not yet so productive as the mass found nearer the surface or immediately adjoining, but is looked upon as more reliable and permanent, the former assaying only $10 to the ton, while the latter, including the poorest quality, worked $13.75. The greater portion of this mass to the depth of sixty feet and covering a broad margin along the chimney is known to be much richer.

Mr. Davidson puts the estimate as high as $25 per ton, which cannot be far from the correct mark, if a judgment could be formed from seeing some half a score of small pieces, taken at random from different points and depths, and prospected with the mortar and pan, every one of which, without exception, showed a large number of exceedingly fine colors, thus determining not only that this large mass contained gold in considerable quantity, but that it was well diffused.

KELLEY CREEK LODE,

Two and a half miles north of Shingle Springs, owned by W. H. Gray and brothers, has an average width of eighteen inches. The rock is worked by a 10-stamp mill, run by a 16-horse engine, with the usual hoisting gear, and has averaged at the rate of $25 per ton throughout the whole thickness of the vein. This estimate does not include some exceedingly rich and handsome specimens of coarse gold, which I had the pleasure of seeing and handling, one of which was worth $300, and another weighing about eight pounds, the largest and richest hitherto seen in my wanderings, was valued at $1,000, or running at the rate of $250,000 per ton. Near the surface the quartz is more or less decomposed and easily worked—the very first ton yielding some $1,500. The rock grows somewhat richer as you approach water level, which is within thirty-six feet of the surface, some of it having paid as high as $5,000 per ton. These gentlemen have recently sunk a shaft to the depth of sixty-five feet, cutting the lode which is here more solid with a larger proportion of sulphurets, but as none of the quartz below water level has as yet been worked, the question as to its continued richness still remains to be determined—the probabilities all in its favor.

Near this lode and running parallel, we also examined a promising claim, known as the Wild Woods, some three feet thick with dip and direction the same as the above, and opened by a shaft seventy-five feet in depth. Two crushings turned out respectively $12 and $16 per ton. The stock is owned by Messrs. Hodgkin, Palmer and others near the mine, and Mr. Kellogg and other citizens of Sacramento.

THE PYRAMID

fs located osar the Rose Spring House, three miles north of Shingle Springs. and seven from Coloma, and is owned exclusively by Wm. E. Gaylord of White Oak township, and Charles E. Abbot of San Francisco. The ledge which crops out in several places in large shoots or chimneys, is well defined by nlmost perpendicnlar walls, being at least seven feet in width at one point where it had been opened by a shaft of thirty feet in depth. It is known to contain fine gold in quantities varying from $5 tn $35 per ton, having worked up to the higher figures here given, the metal being fnund well diffused through the rock, of which there appear to he thousands of tuns thrown up here above the surfaco. It possesses odvantages in point of accessibility and facilities fur working rarely lound, the lode being crossed near the largest chimney by Dry Creek, which has a fall of upwards of fifty feet, and a ditch already constructed which conveys on abundant supply of free water lrom this, and also from Indian Creok but a short distance above. The parties interested in the mine expect soon to avail themselves of the advantages here claimed, and will he able, I trust, in a short time to open up onn of the most valuable, as it now is one of the largest claims in the county.

The next day, a horse having been proffered by Mr. Hodgkin of the Rose Spring House, I set nut ncross the mountains under the guidance of Mr. W. E. Gaylord of the Pyramid, to visit some more of the mines of Pilot Knob district, together with a few not far from the junction of Weaver Creek with ths Amerlcan river. We passed on our way the *Pilot Knob* in the district and near the base of a prominent mountain of the same name, ledge ten feet, direction east and west, dip slightly to the north. I had no difficulty in finding free gold after a little rummging among the rock at the dump. This rock is said to have paid by arastra about $12 per ton.

THE JURGANS MILL AND MINE,

Are situated eight miles northwest from Shingle Springs, and some two miles above the month of Nevada Creek. The lode is well defined, with a narrow clay seam on one wall, with a direction north, and a dip to the west as far as opened, which has been to the depth of ninety-five feet. There nre two other shafts here—one of thirty feet, and the other of fifty-five feet—the average distance of these from each other being about 130 feet, the deepest shaft being at least about thirty feet hslow the bed of the creek. The vein is of a very uniform thickness of about three feet, and pays from wall to wall some twelve dollars to the ton. Mr. Jurgans, the sole owner of the mine, has erected a 10-stamp mill, the stamps about 300 ponnds each, and uses a No. 10 Douglas pump, of dooble stroke, which works well. It has been worked with economy, and under the exclusive control of the proprietor for the last three years, who appears well satisfied with the interest on the investment. Mr. Jurgans was also hauling and crushing about six tons of rock daily from the Blue Bank company's claim, half a mile above, whose rock works from ten to fifteen dollars per ton. Their lode is about four feet in width, and has a dip and direction similar to the above. We must here close our account of the gold-bearing lodes of El Dorado, and devote the remainder of this letter to copper, hy no means the least important interest of the county.

After returning to Shingle Springs I had an invitation from Mr. Davidson, of the toll-gate above the village, to a seat in his buggy for a ride to

THE BOSTON COPPER MINING COMPANY'S CLAIM,

About five miles from Shingle Springs, the same from Latrobe, and one west of the railroad. It consists of 3,000 feet, the stock being held principally in San Francisco. A shaft was at first sunk on the lode 108 feet, striking good copper ore at the depth of fifty feet from the surface, varying from sixteen to eighty per cent., and apparently improving as a greater depth was attained. But instead of following the vein (tempting and promising as it was), for convenience of working and other considerations at the time deemed weighty, the company went sonth of this shaft 225 feet, and lowered another, perpendicularly, to the depth of 140 feet. Drifting west from this 118 feet, and failing to find the lode, they returned to a point thirty-three feet from the foot of the 140-foot shaft, and are now running north along a vein containing more or less copper, with flattering prospects of success, supposed to be now within forty feet of the pay vein (found in the first prospecting shaft), which will be struck at a much greater depth. They have already expended about $30,000 in the search, exhibiting a degree of almost unparalled energy and perseverance, which will, I hope, be eventually rewarded.

Mr. D. McCarty, the present superintendent of the company, profiting by the experience of the past, is pushing forward the work of development with such a well-directed energy that can hardly fail of success, when taken in connection with the copper indications strewn everywhere on the surface, and the yellow sulphurets or pure ore already discovered in different portions of their works. Following the direction of the Buston south, to within two miles of Latrobe, we come upon five or more locations, all more or less developed. First, is the Agra Copper mining company, of 2,200 feet, with two shafts to the depth of twenty-five or thirty feet; second, the Nyman and Douglas, with a shaft of 115 feet sunk east of the vein, to which a drift is now nearly completed from the greatest depth heretofore reached, and from this interesting developments are hourly expected; third, the Bryant, happily located on an unusually large shoot or outcrop; fourth, the Spring elnim, on lower ground than the former, but showing fully as high a grade of ore. The last, but not least, is the Cosumnes Grove, a well-defined vein running from five to eight feet in thickness, with dip east, and course northwest—characteristics of the whole.

The ledge is readily traced for miles by means of frequent outcrops on the surface, and the various marks of copper ore everywhere to be found, which the veriest novice in mineralogy could scarcely fail to observe. Its development is only a question of time.

One mile north of Latrobe, is the claim of

THE TEAR AND RIP COPPER MINING COMPANY,

Consisting of 5,400 feet, and owned principally by parties in San Francisco, who have been for some time pursuing the work of development with only an occasional interval of cessation. Near the surface the vein is somewhat broken up, but contains all the indications of copper, and some ore of low grade. At forty feet it was found in large quantities, and at the depth of seventy-five feet—the greatest attained by the shaft—both the quantity and quality seem to be fast improving, while the lode has become comparatively well-defined, and showing a width in the neighborhood of ten feet.

One hundred feet north is the shaft of

THE RETORN.

This has been sunk to a depth of eighty-five feet, from the foot of which, as I learned, a drift had been run, cutting this same vein, bringing to view equal if not superior ore to any hitherto discovered, all the developments thus far made being encouraging, and all that the most sanguine ought to expect. At these two claims some of the gray copper and also yellow sulphurets were seen, together with some appearance of "mundie and other accompaniments or indications of copper" ores.

Much more might have been said with reference to the copper and other minerals of El Dorado, but we have only space, by way of

CONCLUSION,

To add specially, as to the copper claims in the vicinity of Latrobe, that they evidently lie on a range with some of the best copper mines of Amador; and, generally, as to the mineral resources of the country, that while many facts have been necessarily abbreviated, and others wholly omitted (a long letter from Placerville probably not reaching the office), sufficient have been detailed as to the extent, richness, and permanent character of her mineral lodes to quiet the doubts of the most skeptical and betoken for her a speedy and lasting prosperity, such as has scarcely yet been dreamed of by the most sanguine or visionary.

In this belief, I bid you adieu, till you hear from me elsewhere, as a PROSPECTOR.

Latrobe, May, 1866.

PREMIUM FOR THE DISCOVERY OF WATER ON THE DESERT.—On April 10th, Mr. Rice, of Maine, from the Committeee on Territories, reported back a joint resolution to facilitate communicatinn with the territories of New Mexico, Arizona, and Colorado. The joint resolution provides that whenever any loyal citizen of the United States shall make and establish an artesian well on the line of any mail route in New Mexico, Arizona, Colorado, or the Colorado desert of California, at least ten miles distant from any spring or stream of living water on such route, he shall be entitled to one section of the public lands embracing such well, to be marked out and designated in a compact form.

COMPOSITION OF GAS WITH AIR.—A Mr. Schloesing has recently succeeded in obtaining some remarkable results in the production of exceedingly high temperatures by the combustion of gas with air. By regulating the quantity of hydrogen and air brought together at the time of combustion, a considerable change of temperature can be obtained, the highest named in a communication recently made to the Academie des Sciences of Paris by Sainte-Claire Deville, being 2,736° centigrade. By taking hydrogen obtained by the decomposition of water, and causing it to pass over incandescent charcoal before it arrives at the place of combustion, where it is charged with the requisite quantity of air, a temperature of 2,870° centigrade was obtained. A practical application of this heat is proposed for foundries and workshops.

[Written for the Mining and Scientific Press.]

Hotel Telegraphs—A Suggestion.

MESSRS. EDITORS:—Among the most modern improvements in hotel buildings, are the telegraph and the hoisting or elevating works. I am surprised that people who spend so much money as the hotel proprietors of this city are doing, have not devised either better or more convenient stairs, or introduced the telegraph and elevator improvements of other localities. Where people are always in a hurry, as Californians generally are, it would be a great blessing for hotel boarders to get a speedy and easy communication. All the hotels in England are provided with elevators, constructed on the same principle as the hoisting works in a mine. A platform six or eight feet square, moves in a frame up and down, and guests as well as servants are raised to the upper story in a few seconds. These elevators are moved by steam or water. In the Great Eastern Hotel, London, water pressure from the water-works is used; in other hotels steam power is used.

The next important improvement in Germany is the telegraph. Every room is provided with a telegraph, the same as they are here furnished with a bell. If you wish anything from the office, put your finger on a small silver knob and call for the waiter, the chambermaid, for coffee, tea, wine or water; in fact, anything you wish for can be expressed in a very simple manner. A child seven years old can easily learn it. By the present system, if we wish for anything we have first to ring the bell; then appears the waiter; then we order; then he starts off; and lastly he appears again, after having traveled over one hundred steps or more, and the guest has had the pleasure of waiting all that time for what he desired. Is not this a great waste of time? I hope that some of our hotel-keepers will consider the matter, and have these improvements put in for the comfort of their guests, and for their own economy. If any one wishes further particulars on these improvements, I shall be glad to assist them. Yours, etc.

J. MOSHEIMER.

THE COLLEGE OF CALIFORNIA.—The Commencement exercises of this Institution will be held on Wednesday next, June 6th, at 12 M., in the new College School Hall, at Oakland. After the speaking by the graduating class, the Commencement Oration will be delivered (at about half-past one o'clock) by Rev. Henry M. Scudder, D. D. Subject—"Hindu Philosophy and Boston Transcendentalism." Hon. O. L. Shafter has been selected as the Orator of the Day. His Oration will be pronounced at 3 P. M. The evening, as usual, will be devoted to the alumni supper, with its accompanying "feast of reason and flow of soul." Those who have attended the two last gatherings of the Alumni at Oakland, need not be told of the rare and rational enjoyment which may be expected on this occasion.

SCHOOL EXAMINATIONS.—During the past week the various Public Schools in the city have held their annual examinations, in accordance with the programme in our last issue. More or less extended notices of these interesting exercises are given elsewhere in our columns. The occasion has been one of unusual interest—the schools have all had the fullest opportunity to display their wisdom and beauty; and they have had a lively and happy time in doing so. The Public Schools of San Francisco, take them one and all, in every department and under every circumstance, will not suffer in comparison with those of any city in the Union, or in the world. These exercises have called forth the highest commendations from the large and appreciative attendance with which they have been thronged.

A NEW IDEA.—A writer in the Buffalo *Commercial Advertiser* proposes to increase the freighting capacity of the Erie canal, by building a railroad track on each bank of the canal, so that locomotives instead of horses may be used for towing boats. He says that the average speed of boats moved by horse power through our canals is two and a half miles per hour. If by steam we can double this speed, we can double the amount of freight moved.

THE HIGH SCHOOLS OF SAN FRANCISCO.

The opinion has been expressed by competent and unprejudiced judges, that no private Schools in the Union occupy a higher standard of efficiency than the Boys' and Girls' High Schools, connected with the Public School Department of this city. This fact has been made most prominently apparent during the recent examination in those Schools. The examination just concluded has been more thorough and systematic than on any former similar occasion. A contemporary, speaking of the exercises, says that a graduate of Harvard University, who was present at the boys' examination, expressed the opinion that few graduating classes of that eminent seat of learning would be able to stand the test of an examination in the branches under consideration, to better advantage than did the pupils of the Boys' High School. While the result of the examination in the Girls' High School was no less satisfactory and creditable to the pupils there.

THE GIRLS' HIGH SCHOOL

The public examination of the Girls' School, which is under charge of E. H. Holmes as Principal, took place on Monday, in the presence of a large number of the parents and friends of the pupils, and citizens generally. It was entirely oral, the questions were quite general, and full opportunity given to spectators present to propose additional ones. The answers were generally prompt and correct, and such as exhibited a thorough knowledge of the subjects under consideration. The exercises were interspersed with music and singing. After their conclusion, the Rev. O. C. Wheeler addressed the School with a few exceedingly happy and appropriate remarks.

This School consists at the present time of 97 pupils, divided into three classes—the Senior, Middle, and Junior. The average age of the pupils is sixteen; of the graduating class, eighteen. The commencement exercises of the graduating class took place on Tuesday, at Lincoln Hall.

THE BOYS' HIGH SCHOOL.

The Boys' High School is located at the corner of Clay and Powell streets, and is under the direction of Theodore Bradley, as Principal. The examination of this School for promotions and for graduation, took place last week, and was most thorough and satisfactory in its character.

The annual public examination occurred on Tuesday, and was attended by a large number of the parents and friends of the pupils, and quite a number of prominent citizens and city and county officials. Lectures on chemistry, illustrated by experiments, were given by two of the pupils of the graduating class—masters Lankershow and Felsenthal; a lecture on hydrostatics by master Knowles, on electricity by T. Malloy, on the electric telegraph by Louis Gazynski, on zoology by Charles Foy, etc. In the examination in physiology, the pupils with the aid of a manikin, illustrated the process of circulation, dissected the heart, brain, and other organs, evincing a thorough knowledge of the subject. In the lectures on chemistry, electricity, etc., the pupils showed a readiness and facility in the manipulations of the instruments and a clearness in their illustrations that was truly surprising in scholars of their age.

The Boys' High School numbers between 60 and 70 scholars, whose average age is 15 years. Heretofore there have been four classes, the course of study comprising four years, but by a recent enactment of the Board of Education the course is to be henceforth reduced to three years, with a two years' course for those who only desire to obtain a practical business education.

THE ANNUAL EXAMINATION OF THE CITY FEMALE SEMINARY.—The annual examination of the pupils in attendance upon the City Female Seminary took place on Tuesday, Wednesday and Thursday. The exercises were of a most pleasing and interesting character, and were witnessed by great numbers of the parents, and by the friends of education generally. The school is located at the corner of Mason and O'Farrel streets, and is under the direction of Professor Clarke.

SALES OF THE WEEK
BY THE S. F. STOCK & EXCHANGE BOARD

Friday, May 25.

AFTERNOON SESSION.

216 shs Ophir at 365@380 per foot.
48 shs Ophir at 370@380 per foot, s 3.
144 shs Ophir at 370@375 per foot, s 30.
9 shs Chollar-Potosi at 295@294 pr ft
15 shs Chollar-Potosi at 296 per foot, b 3.
7 shs Belcher at 185@195 per foot.
4 shs Belcher at 19 @195 per foot, s 10.
1 sh Belcher at 195 per foot, b 10.
1 sh Savage at 840 per foot.
1 sh Savage at 830 per foot, s 30.
4 shs Hale & Norcross at 960 per foot, s 3.
10 shs Imperial at 123 per share, s 5.
7 shs Imperial at 122 per share, s 10.
20 shs Overman at 35@30 per foot.
35 shs Overman at 35@30 per foot, b 3.
25 shs Overman at 30@31 per sh, b 10.
5 shs Overman at 27 per foot, s 30.
Amount of sales.....$ 32,190 00

Saturday, May 26.

182 shs Opbir at 385@400 per foot, s 3.
243 shs Ophir at 400@390 per foot.
108 shs Ophir at 400@395 per foot, s 10.
24 shs Ophir at 390@392½ per foot, s 30.
12 shs Opbir at 405 per foot, b 50.
24 shs Ophir at 400 per foot, b 3.
26 shs Chollar-Potosi at 300@295 per foot.
5 shs Chollar-Potosi at 295 per foot, s 30.
10 sh Onollar-Potosi at 302½ per foot, b 30.
10 shs Savage at 840@837½ per foot.
4 sh Savage at 825@835 per foot, s 30.
1 sh Savage at 860 per foot, b 30.
12 shs Alpha, O. H., at 320 per foot.
1 sh Belcher at 240 per foot, b 30.
5 shs Belcher at 200@210 per foot.
17 shs Yellow Jacket at 625@615 per foot.
1 sh Yellow Jacket at 615 per foot, s 10.
2 shs Yellow Jacket at 605@600 pr ft, s 30.
5 shs Imperial at 120 per share, s 5.
5 shs Imperial at 120 per share, s 30.
2 shs Imperial at 121@122 per share.
5 shs Imperial at 126 per share, b 30.
149 shs Overman at 25@30 per ft.
30 shs Overman at 28@29 per ft, s 10.
10 shs Overman at 27½ pr ft, s 30.
20 shs Overman at 30@32 per share, b 30.
10 shs Overman at 29 per foot, b 3.
5 shs Overman at 28 per sh, s 3.
25 shs Sierra Nevada at 5¾ per share.
10 shs Excbeqaer at 9 per share.
5 shs Empire M & M Co. at 160 per sh, s 30.
20 shs National Ins. Co. at 81 per cent.
$2,000 Legal Tender Notes at 75¾c.
Amount of sales $35,292 00

Monday, May 28.

120 shs Ophir at 425@400 per foot, b 30.
132 shs Ophir at 405@385 per foot, s 3.
216 shs Ophir at 390@400 per foot.
12 shsOphir at 396 per foot, b 3.
24 shs Ophir at 390 per foot, s 5.
108 shs Ophir at 490 per foot, s 10.
20 shs Gould & Curry at 730 per foot.
2 shs Belcher at 210@205 per foot.
3 shs Belcher at 205 per foot, s 3.
3 shs Yellow Jacket at 630@640 per ft, b 30.
14 shs Yellow Jacket at 615@630 per ft.
1 sh Yellow Jacket at 620 per foot, s 3.
2 shs Yellow Jacket at 630@635 per foot, b 5
3 shs Savage at 837½@835 per foot.
32 shs Chollar-Potosi at 300@296 per ft.
7 shs Chollar-Potosi at 300 per foot, b 5.
5 shs Chollar-Potosi at 307½ per foot, b 30.
2 shs Hale & Norcross at 975 per foot.
5 shs Overman at 40 per foot, h 5.
35 shs Overman at 30@40 per ft, s 30.
62 shs Overman at 35@41 per ft.
5 shs Overman at 73½, b 30.
40 shs Overman at 37@41 per foot, s 3.
10 shs Overman at 40 per foot, b 10.
10 shs Bullion at 80@90 per share.
5 shs Bullion at 86 per share, s 30.
5 shs Bullion at 87¾ per share, s 3.
20 shs Imperial at 122@123 per share.
5 shs Imperial at 125 per share, b 30.
3 shs Confidence at 33 per share.
$4,000 U. S. 7-30 Bonds, June issue, 77¼ c. s 3.

AFTERNOON SESSION.

192 shs Ophir at 370@365 per foot.
192 shs Opbir at 380@370 per foot, b 3.
60 shs Ophir at 365@367½ per foot, s 10.
95 shs Ophir at 367½ per foot, s 5.
28 shs Chollar-Potosi at 297½@300 per foot.
5 shs Chollar-Potosi at 307½ per ft, b 30
5 shs Yellow Jacket at 630@625 per ft.
1 sh Yellow Jacket at 620 per foot, s 30.
3 shs Savage at 837½@840 per foot.
4 shs Alpha, O H, at 300 pr ft, ass't unpaid
59 shs Overman at 40@42 per foot.
25 shs Overman at 40@38 per foot, s 30.
3 shs Imperial at 123 per share.
5 shs Bullion at 82¼ per share, s 30.
60 shs Exchequer at 10 per share.
Amount of sales.....$138,469 00

Tuesday, May 29.

345 shs Ophir at 360@382½ per foot.
24 shs Ophir at 365@380 per foot, s 5.
48 shs Ophir at 370@380 per foot, b 3.
132 shs Ophir at 385 per foot, b 30.
12 shs Ophir at 385 per foot, s 3.
84 shs Opbir at 365@385 per foot, s 10.
14 shs Chollar-Potosi at 300@310 per foot.
14 shs Chollar-Potosi at 312@315 pr ft, b 30.
12 shs Chollar-Potosi at 311@312½ pr ft, b 3.
2 shs Chollar-Potosi at 311 per foot, s 3.
4 shs Belcher at 202½@205 per foot
2 shs Belcher at 205 per foot, b 7.
2 shs Belcher at 205 per foot, b 3.
2 shs Belcher at 205 per foot, h 10.
12 shs Yellow Jacket at 630@640 per foot.
2 shs Yellow Jacket at 630 per foot, s 3.
1 sh Yellow Jacket at 640 per foot, h 3.
8 shs Yellow Jacket at 640@660 per ft, b 30.
5 shs Yellow Jacket at 635, h 10.
2 shs Yellow Jacket at 640 per foot, h 3.
4 shs Hale & Norcross at 955@970 per ft.
20 shs Exchequer at 9½ per share.

From the Stock Circular ofAssociated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, June 2, 1866.

The amount of capital offering for loan purposes shows no abatement, amply supplying the wants of all classes who can furnish the requisite security. A fair demand prevails in bank circles where the rate rules as formerly—1@1¼ ₱ cent. per month. The outside requirement upon mining stocks and other collaterals is more active, but the former security being in rather less favor, borrowers are effecting loans with more difficulty than for some time past.

The receipts of treasure from the interior mining districts since Saturday last amounted to $1,100,000, and the aggregate for the month of June exceeded $4,000,000. The bullion yield of Nevada and portions of the North coast has fallen off a little recently, but this deficiency is fully made up by increased receipts from the quartz mines of this State.

Legal Tender Notes have been actively dealt in this week, and the par value of the sales exceeded $125,000, receding from 75¾ to 72¼c., seller 30, rallying to 74, and closing at about 75c. bid, 75½c. asked. Small sales of June 7-30's were made at 77½, closing at 79 asked. The latest reliable advices from New York quote gold at 138 on the 31st ult.

City Shares, Bonds, etc., have not fluctuated materially, and are not freely offered. National Insurance was sold at $81 per share; Spring Valley Water at $69; North Beach and Mission Railroad advanced to $55 per share, and Omnibus is now held at $59. Interior County Bonds are attracting some attention, and are held with rather more firmness.

The Mining Share Market has not exhibited much vitality this week, and prices at the close fell to the lowest point reached for a a long time past. Considerable hypothecated stock has been sold lately to cover advances, and is now probably in the hands of stronger holders. Present developments in portions of the Comstock lode, together with the undiminished yield of a number of claims, would seem to warrant present prices, if not to justify the expectation of higher market values.

Crown Point rose to $1,050, receded to $1,000, and then sold at $1,005@1,000 During the week ending 26th ult., 594 tons 2d class, and 55 tons 1st class ore were extracted from the mine. The latter is taken mainly from the winze sunk below the 300-foot level, at a point within 60 feet of the north line. No other new developments have been made lately. The shaft is now down 420 feet, and a station is being prepared for the new or 4th level. Receipts of bullion for the month of May will approximate $110,000, and the regular dividend will be declared on the 9th inst., leaving a large surplus in the treasury of the company.

Savage declined to $835, rose to $926, buyer 30, then sold at $882, and closes at $800 bid. Advices from this mine continue favorable, and the ore product is averaging 80 to 90 tons per day. The present yield of the lower or 6th level is expected to be steadily maintained for some time hence, and an increased production is anticipated from the upper levels. The old shaft is down 60 feet from the lower level, and in drifting north (from the 6th) some 30 feet, a seam of ore has been met with. A further continuation of this drift will, it is thought, reach the body of ore found in the Gould & Curry.

In the Curtis shaft, good progress is being made with the two southern compartments. A drift has been commenced at a point corresponding in level with the 7th station, old shaft, and is now in 25 feet. This is to reach the vein near the Hale & Norcross line, and about 70 feet above their 700-foot level. Receipts of bullion for the month of May amounted to $115,000.

Hale & Norcross has been well sustained at $975@965, and closing at $960. There is a new feature in this mine—the different floors north and south (from the 7th level) still present a flattering appearance, and certain portions are producing a better quality of ore. The yield of bullion for May will amount to some $65,000, and the usual dividend will be declared next week.

Gould & Curry was dealt in at $730, cash, $750, buyer 30, closing at $710 bid. There are still 50 feet of the south drift (from the south branch, 2d station) to clean up before the face can be reached. The east drift from the south branch (2d station) is still in quartz. The ore chambers above continue to hold out well, and a large quantity of ore is being piled up at the mill. Receipts of bullion for the past month amounted to $160,000, and the company have now at their credit a balance of $107,000, with no liabilities.

Yellow Jacket rose from $600, seller 30, to $690, buyer 30, receded to $621, and sold yesterday at $585@525. We have no official advices from this claim this week, but are informed that there is no improvement to note in the quality of ore extracted recently, most of it being of low grade.

Ophir has been dealt in to the extent of some 400 feet, advancing from $385 to $425, buyer 30, dropping steadily to 280, and then closing at $300. We can learn of no favorable feature as to the present appearance of the lower level, and the body of ore in the 6th is said to be "*fair* but *base*," meaning probably not as intrinsically good as it would seem to be, or, in other words, unreliable. Receipts of bullion during the past month amounted to $84,000.

Chollar-Potosi fell from $300 to $295, rose to $330, fell to $290, and sold yesterday at $270@165, closing at $185. The upper stope of the Bajazet ground is said to be looking well, and discloses a large body of ore. In drifting 18 feet east from the New Santa Fe station a little ore has been found, and the Belvidere mine continues to yield some 25 tons of good ore daily. The new station drift (from the shaft) is in about 430 feet, "the end having passed through a soft mixture of porphyry and clay." During the week ending May 26th, 693 tons of ore were sent to custom mills. This company have now a supply on hand of some $20,000, all liabilities being paid.

Belcher rose from 200 to 230, fell to 165, and closed at $130. Within this range 140 feet were sold. Alpha reached from $320 to $290, and closes at $250 asked. Empire Mill and Mining was sold at $160, seller 30, but is now well held at about $165 per share.

Imperial has been held to within a range of $120@92½, closing at $92 bid. Receipts of bullion for the first three weeks of May amounted to $39,200. The damage done to the dam at the Rock Point mill is being repaired at a cost of some $4,000.

Overman has been very active, and nearly 1,200 shares were sold, dropping to $25, rallying to 41, falling to 23, and selling yesterday at $23@24. Bullion has been dealt in within a range of $86 cash, and $60, seller 30, closing at $49. Confidence was sold at 33@30, Exchequer 10@8, and Sierra Nevada at 5¾@5.

The total recorded sales of Stocks, Legal Tender Notes and Bonds, since Saturday last, amounted to $724,591.

84 shs Confidence at 30 per share.
10 shs Confidence at 30 per share, s 10.
15 shs Imperial at 124@125 per share.
15 shs Overman at 38@36½ per foot.
10 shs Overman at 38 per foot, b 10.
$3,000 Legal Tender Notes at 73½c.

AFTERNOON SESSION.

60 shs Opbir at 390 per foot, s 10.
12 shs Ophir at 390 per foot.
12 shs Ophir at 390 per foot, s 5.
60 shs Ophir at 390 per foot, s 30.
60 shs Opbir at 400 per foot, b 30.
36 shs Opbir at 392½ per foot.
3 shs Chollar-Potosi at 315 per foot.
1 sh Belcher at 207½ per foot
6 shs Belcher at 210 per foot, s 3.
6 shs Belcher at 210 per ft.
2 shs Belcher at 212½ per foot.
2 shs Belcher at 216 per foot, b 30.
3 shs Belcher at 215 per foot.
8 shs Gould & Curry at 730 per foot, s 3.
4 bs Gould & Curry at 750 per foot, b 30.
1 sh Yellow Jacket at 650 per foot.
1 sh Yellow Jacket at 670 per foot, b 30.
8 shs Yellow Jacket at 675 per foot.
3 shs Yellow Jacket at 677½ per foot.
1 sh Yellow Jacket at 635 per ft, b 30
2 shs Yellow Jacket at 680 per foot, h 3.
1 sh Yellow Jacket at 680 per ft, s 3.
1 sh Yellow Jacket at 677½ per foot, s 30.
2 shs Yellow Jacket at 690 per foot, b 30.
1 sh Yellow Jacket at 675 per foot, s 30.
5 shs Bullion at 85 per share, s 3.
5 shs Bullion at 86 per share.
20 shs Bullion at 85 per share.
25 shs Overman at 35 per share.
10 shs Overman at 33 per sh, s 5.
25 shs Overman at 33 per sh.
5 shs Overman at 33¼.
20 shs Overman at 36½, s 3.
10 shs Overmon at 33, s 3.
10 shs Overman at 31 per sh, h 3.
10 shs Overman at 34 per share.
Amount of sales..... ...$108,629 00

Wednesday, May 30.

163 shs Ophir at 387½@375 per foot.
72 shs Ophir at 375@385 per foot, s 6.
48 shs Ophir at 380 per foot, s 10.
252 shs Ophir at 390@397¼ per foot, b 30.
48 shs Opblr at 385@380 per foot, s 3.
14 shs Chollar-Potosi at 330@320 per foot.
6 shs Chollar-Potosi at 325@317½ per ft, s 3
10 shs Chollar-Potosi at 320 per foot, b 10.
5 shs Chollar-Potosi at 318 per foot, b 5.
12 shs Belcher at 212½@222½ per foot.
1 sh Belcher at 210 per foot, s 10.
2 shs Belcher at 315 per foot, s 30.
1 sh Belcher at 222½ per ft, b 30.
2 shs Belcher at 220@225 per foot, s 3.
1 sb Yellow Jacket at 665 per foot, s 30.
3 shs Yellow Jacket at 670@665 per foot.
2 shs Yellow Jacket at 690 per foot, b 30.
8 shs Alpha, G H, at 290 per foot.
40 shs Daney at 11 per loot.
10 shs Sierra Nevada at 5¾ per share.
12½ shs Exchequer at 10@9¾ per share.
33 shs Imperial at 125@124 per share.
10 shs Imperial at 124 per share, s 30.
15 shs Confidence at 30@31 per share.
70 shs Overman, at 33@31 pr ft.
10 shs Overman at 33 per foot, b 30.
6 shs Bullion at 85 per share.
$10,000 Legal Teader Notes at 72¾c, s 30.

AFTERNOON SESSION.

1 sh Belcher at 230 per foot, b 30.
1 sh Belcher at 225 per foot.
4 shs Belcher at 222½ per foot.
3 shs Belcher at 223 per foot, s 3.
1 sh Belcher at 223 per foot.
1 sh Belcher at 220 per foot, s 30.
3 shs Chollar-Potosi at 320 per foot.
1 sh Chollar-Potosi at 321 per foot.
1 sh Chollar-Potosi at 320 per foot.
1 sh Chollar-Potosi at 318 per foot.
2 shs Chollar-Potosi at 316, h 5.
10 shs Chollar-Potosi at 312 per foot, s 5.
3 shs Savage at 900 per foot.
1 sh Savage at 925 per foot, b 30.
4 shs Yellow Jacket at 650@640 per foot.
2 shs Yellow Jacket at 650 per foot, b 30.
4 shs Yellow Jacket at 635@645 per ft, h 3.
1 sh Yellow Jacket at 635 per foot, s 3.
3 shs Yellow Jacket at 635@630 pr ft, s 30.
12 shs Ophir at 395 per foot, b 30.
12 shs Ophir at 392½ per foot, s 30.
10 shs Sierra Nevada at 5¾ per share.
20 shs Sierra Nevada at 5¾ per share, b 30.
10 shs Exchequer 10 per share.
23 shs Overman at 31@31½ per ft.
5 shs Overman at 30½, s 5.
65 sh Overman at 30¼@29 per foot.
5 shs Imperial at 124¼ per share.
20 shs Imperial at 124 per share, b 3.
5 shs Imperial at 124 per share.
10 shs Imperial at 122½ per share, s 30.
10 shs Imperial at 123 per share, b 3.
34 shs Bullion at 83@86 per share.
15 shs Bullion at 87½@85 per share, b 30.
45 shs Bullion at 82@84 per share, s 30.
5 shs Bullion at 83 per share, b 3.
$5,000 Legal Tender Notes at 72½c, s 30.
$20,000 Legal Tender Notes at 72¾ per cent.
Amount of sales $126,984 00

Thursday, May 31.

100 shs Opbir at 370@375 per foot.
120 shs Ophir at 372½@375 per foot, s 3.
24 shs Ophir at 375 per foot, b 3.
84 shs Ophir at 385 per foot, h 30.
60 shs Ophir at 360 per foot, s 30.
24 shs Ophir at 377½ per fool, c.
84 shs Ophir at 375 per foot.
24 shs Ophir at 381½ per foot, b 30.
24 shs Ophir at 372½ per foot, s 10.
6 shs Chollar-Potosi at 308 per foot, s 5.
6 shs Chollar-Potosi at 305@307½ per foot.
8 shs Chollar-Potosi at 300@302½, s 30.
6 shs Chollar-Potosi at 300 per foot, c.
10 shs Chollar-Potosi at 300 per foot.
8 shs Chollar-Potosi at 310 per foot, b 30.
5 shs Belcher at 205@199 per foot, s 3.
5 shs Belcher at 195@197½ per foot.
2 shs Belcher at 195 per foot, s 5.
10 shs Belcher at 198@199 per foot.
2 shs Belcher at 198@197½ per ft, s 30.
2 shs Savage at 900 per foot.
2 shs Yellow Jacket at 640 per foot, h 30.
5 shs Yellow Jacket at 620@625 per foot
1 sh Yellow Jacket at 620 per foot, s 3.
4 shs Crown Point at 1050 per foot, s 3.
12 shs Crown Point at 1000@1005 per foot.
8 shs Crown Point at 1000 per ft, h 3.
105 shs Overman at 23@26 per share.
25 shs Overman at 23, s 3.
10 shs Overman at 22½@23¼ per sh.
60 shs Overman at 20@23 per sh, s 30.
15 shs Overman at 25, c.
20 shs Overman at 24 per sh.
10 shs Overman at 24, b 3.
6 shs Overman at 25 per sh, b 30.
15 shs Bullion at 80@72½ per share.
10 shs Bullion at 70 per share, s 3.
30 shs Bullion at 60@62½ per share, s 30.
10 shs Bullion at 62½@65 per share.
18 shs Confidence at 30 per share.
5 shs Confidence at 30 per share, s 30.
6 shs Exchequer, at 10 per share, s 3
10 shs Exchequor at 10½ per share.
5 shs Imperial at 120¾ per share, s 30.
10 shs Imperial at 120¾ per share.
5 shs Imperial at 120 per share, s 3.
30 shs Sierra Nevada at 6¼ per share.
55 shs N B & Mission R R at 65 per sh, b 30.
50 shs Spring Valley Water Co at 69 p ct
$10,000 Legal Tender Notes at 73 pr ct. s 30.
$15,000 Legal Teader Notes at 72@72¾c.
$ 5,000 at 73c.
$ 5,000 at 72¾c, s 30.

AFTERNOON SESSION.

24 shs Ophir at 370 per foot, s 10.
12 shs Ophir at 367½ per foot, s 3.
60 shs Ophir at 367½@365 per foot.
48 shs Ophir at 365 per ft, b 3.
24 shs Ophir at 362½ per foot.
24 shs Ophir at 362½ per ft, s 3.
36 shs Ophir at 360 per foot, s 5.
24 shs Ophir at 370 per foot, b 30.
48 shs Ophir at 360 per foot, s 30.
3 shs Chollar-Potosi at 295@294¾ per ft.
6 shs Chollar Potosi at 300 per foot, h 30.
6 shs Chollar-Potosi at 290 per foot, s 20.
4 shs Chollar-Potosi at 290 per foot.
4 shs Chollar-Potosi at 290 per foot, s 3.
6 shs Chollar-Potosi at 296 per foot, b 10.
10 shs Yellow Jacket at 625 per foot.
1 sh Yellow Jacket at 622½ per ft.
1 sh Belcher at 195 per foot.
1 sh Belcher at 200 per foot, b 30.
2 shs Belcher at 195 per foot, b 10.
1 sh Belcher at 192½ per foot.
1 sh Belcher at 192¾ per foot, s 3.
20 shs Overman at 24½ per share.
40 shs Overman at 24@25.
90 shs Overman at 25@26 per sh, b 30.
16 shs Overman at 24@23 per foot, s 30.
6 shs Bullion, at 70 per share, s 30.
16 shs Bullion at 72@70 per share.
5 shs Bullion at 60 per share, s 3.
101 shs N B & Mission R. R. at 55 per share.
Amount of sales.....$142,867 00

Friday, June 1.

664 shs Ophir at 350@325 per foot.
30 shs Chollar-Potosi at 270@240 per foot.
15 shs Chollar-Potosi at 320 per foot, s 30.
14 shs Yellow Jacket at 615@640 per ft.
2 shs Yellow Jacket at 59 @585 pr ft, s 30.
12 shs Yellow Jacket at 590@582½ per foot.
8 shs Crown Point at 1000@1010 per foot.
7 shs Belcher at 175@160 per foot.
4 shs Gould & Curry at 710 per foot.
15 shs Imperial at 117½@115 per share.
66 shs Sierra Nevada at 5 per share.
3 shs Savage at 825@832½ per foot.
5 shs Savage at 8756@866 per foot, s 30.
35 shs Bullion at 65@68 per share.
35 shs Bullion at 57½ per share, s 30.
65 shs Overman at 25@23 per share.
45 shs Overman at 24½@25 pr sh.
Amount of sales.....$ 90,160 00

In the Curtis shaft, good progress is being made with the two southern compartments. A drift has been commenced at a point corresponding in level with the 7th station, old shaft, and is now in 25 feet. This is to reach the vein near the Hale & Norcross line, and about 70 feet above their 700-foot level. Receipts of bullion for the month of May amounted to $115,000.

Hale & Norcross has been well sustained at $975@965, and closing at $960. There is a new feature in this mine—the different floors north and south (from the 7th level) still present a flattering appearance, and certain portions are producing a better quality of ore. The yield of bullion for May will amount to some $65,000, and the usual dividend will be declared next week.

Gould & Curry was dealt in at $730, cash, $750, buyer 30, closing at $710 bid. There are still 50 feet of the south drift (from the south branch, 2d station) to clean up before the face can be reached. The east drift from the south branch (2d station) is still in quartz. The ore chambers above continue to hold out well, and a large quantity of ore is being piled up at the mill. Receipts of bullion for the past month amounted to $160,000, and the company have now at their credit a balance of $107,000, with no liabilities.

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MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

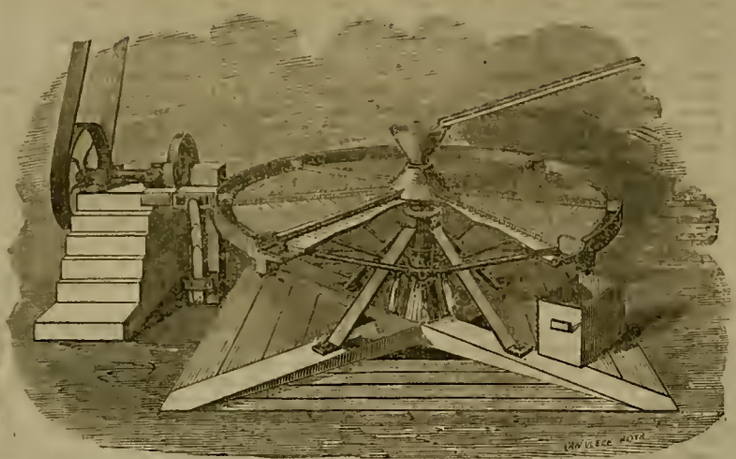
NAME AND LOCATION.	AM'T OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE
Arbitrios, Mexico, $1 50		July 12	Aug 13
Alpha, Gold Hill, $50		May 25	June 25
Alameda Coal M Co, $?		June 27	July 21
Boston Copper, 50c		June 22	July 18
Batopilas, Chihuahua, Mex., 25c		May 10	May 28
Belcher Co			Sale June 9
Belcher, Baldwin & Abernathie Co, $20			Sale June 9
Bullion			$10 00
Bunker Hill, El Dorado co., $1		May 23	June 11
Bacon Mill		Meeting June 5	
Blue Ledge G & S M Co		Meeting June 14	
Bella Union G & S., Arizona		Meeting June 6	
Cosala S M Co., Sinaloa, Mex., $1		June 30	July 17
Crocket Con., Esmeraldo co, $1		June 23	July 10
Capitola, Santa Clara co., Cal., 10c		June 12	July 2
Capitola, 10c		June 12	July 2
Cole, Silver, $1		June 11	July 5
Crown Point		Annual Meeting June 4	
Crown Point			Dividend
Dios Padre, Alamos, Mex., $3		June 5	June 23
Dancy, 50c			May 12
Diamond Cop., Del Norte co., Cal., $2		May 26	June 21
Eagle, Austin, Nev., $1		June 16	July 6
Evoca Cons. Cop., Del Norte co., Cal., 25c		June 6	July 1
Geo. Washington, Alpine co., Cal., $1.00		June 9	June 26
Great Basin, Humboldt co., Nev., 9c		June 12	July 2
Green, Storey co., Nev		Annual Meeting June 6	
Gold Hill, Storey co., Nev., $1		June 15	July 10
Hanscom Copper, 30c		June 29	July 16
I. X. L., $1.50		May 17	June 7
Imperial			Dividend
Independent, Coal		Meeting June 1	
Keokuk, Contra Costa co., Cal., 10c		May 21	June 11
Leland, Arizona, 25c		June 30	July 16
Lady of the Lake, Arizona, 25c		June 30	July 16
Lady Franklin, Alpine co., Cal., 25c		May 7	June 5
Lady Bell, Low Divide, Cal		June 9	June 28
Lady Bryan, $1		June 30	July 16
Mina Rica de las Flores, $1		June 19	July 16
Morning Star		Meeting June 21	
Mina Rica de las Flores		Meeting June 7	
North American Tin, Durango, Mex., 40c		June 22	July 9
Nuestra Sra de Guadelupe, Durango, Mex., $1		June 2	June 30
North Star, Lander co., Nev., $25		May 14	June 6
Ophir of the Colorado, Arizona, 25c		June 26	July 16
Old Colony, Austin, Nev., $3		June 13	July 9
Providence		Annual Meeting June 20	
Rippon, Alpine co., Cal., $1		June 11	June 26
Refugio, Chihuahua, Mex., $2½		May 21	June 6
Simpson M & M Co		Annual Meeting June 14	
Sapphire, Storey co., Nev., $5		June 28	July 17
Silver Queen, Lander co., Nev., $1		June 23	July 23
Siskiyou M Co., Siskiyou co		Meeting June 11	
San Marcial S M Co, Mexico, 50c		May 31	July 18
Simpson & Sossell, Carson Valley, $1		June 9	June 29
Sierra Valley, Plumas co., Cal., $1		May 31	June 18
Sierra Nevada, Storey co, Nev., $1		May 7	June 6
San Marcial S. M. Co., Mex, 50c		Meeting May 28	
Table Mountain Copper		Meeting June 11	
Techattneup S. M Co., Arizona		Annual Meeting June 1	
United States, Storey co., Nev., 50c		May 26	June 13
Whliman, Lyon co., Nev		Annual Meeting June 5	
Yankee Blade, $25		June 18	July 9

*Those marked with an asterisk (*) are advertised in this Journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 78	$ 79
Gov. Legal Tender Notes	75	75½
State Bonds, 7 ₱ cent.	84	85
San Francisco 10 ₱ cent.	..	..
San Francisco Bonds, 1855, 6 ₱ cent.	..	..
San Francisco Bonds, 1856, 6 ₱ cent.	72	73
Sacramento City Bonds, 6 ₱ cent.	18	..
Sacramento County Bonds, 6 ₱ cent.	58	65
Marysville Bonds, 10 ₱ cent.	75	82
Stockton Bonds, 10 ₱ cent.	80	85
Yuba County Bonds, 10 ₱ cent.	80	85
Butte County Bonds, 10 ₱ cent.	70	80
California Navigation Co.	60	61
State Telegraph Stock	33	35
San Francisco Gas Co.	108	110
Sacramento Gas Co.	..	75
Spring Valley Water Co.	68	69
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	50	58
Central Railroad Co.	..	..
North Beach and Mission	62	65
MINING STOCKS.		
Alpha	$200	$205
Bullion, G. H	49	50
Ophir	300	305
Gould & Curry	710	750
Empire M. & M. Co.	155	165
Savage	800	825
Chollar-Potosi	185	190
Hale & Norcross	950	975
White & Murphy	....	....
Sierra Nevada	6½	9
Yellow Jacket	535	540
Overman	23	24
Crown Point	1000	1005
Antelope	....	....
Emeralda	1	5
Real del Monte	....	....
Buckeye	....	....
Dick Sides	....	....
Imperial	92	93
Ætna	....	....
Cedar Hill Tunnel	....	....
Wide West	....	....
Sierra Buttes Quartz Co.	....	....
Central	....	....
California	....	....

VARNEY'S CONCENTRATOR,



With a disk 4 1-2 feet in diameter—total weight of Machine 350 pounds.

Is driven by one-eighth of a horse-power, and will concentrate eight tons of ore per day, and make the sulphurets clean. Larger ones do work in proportion to size.

☞ IT CAN BE SEEN IN OPERATION AT THE PACIFIC IRON WORKS, SAN FRANCISCO. ☜
22v12-3m

San Francisco Jobbing Prices Current.

Flour, extra, ₱ bbl	6 00 @ 6 50
Do Superfine	5 50 @ 6 00
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	@ 1 75
Oats, choice, ₱ 100 lb	1 90 @ 2 00
Barley, ₱ 100 lb	90 @ 1 00
Beans, ₱ 100 lb	3 50 @ 4 00
Potatoes, ₱ 100 lb	60 @ 1 15
Hay, ₱ ton	8 00 @ 15 00
Live Oak Wood, ₱ cord	8 00 @ 10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ 9
Hogs, dressed, ₱ lb	12 @ 13
Groceries, Etc.	
Sugar, crushed, ₱ lb	— @ 15
Do Chilua	10 @ 12½
Coffee, Costa Rica, ₱ lb	— @ 23
Do Rio	23½@ —
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	9 @ 10
China do.	7 @ 8
Coal Oil, ₱ gal	75 @ 80
Candles, ₱ lb	22 @ 21
Ranch Butter, ₱ lb	37½@ 40
Isthmus do	35 @ 45
Cheese, California, ₱ lb	14 @ 17
Eggs, ₱ doz	40 @ 50
Lard, ₱ lb	20 @ —
Ham and Bacon, ₱ lb	20 @ 22½
Shoulders	20 @ 22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45@ 50
do pickled ₱ lb	38@ 40
do Oregon	35@ —
do New York, ₱ lb	50@ —
Cheese, ₱ lb	25@ —
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	—@ 50
Lard, ₱ lb	25@ —
Hams and Bacon, ₱ lb	24@ 26
Cranberries, ₱ gal	75@ 1 00
Potatoes, old, ₱ lb	1@ —
do New ₱ lb	2@ —
Tomatoes, ₱ lb	@ —
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	3@ 8
Pears, table ₱ lb	8@ 25
Plums, dried, ₱ lb	20@ 22
Peaches, dried, ₱ lb	16@ —
Oranges, ₱ doz	50@ —
Lemons, ₱ doz	75@ —
Chickens, apiece	87½ 1 12
Soap—Pale & C. O	10@ 12
Castile	14@ 15

Rheumatism ! !

READ IT! READ IT!!

SACRAMENTO, April 16th, 1866.

H. BOWMAN—DEAR SIR: THIS IS THE FIRST WRITing I have done in two years, and it affords me great pleasure to be able to use my pen in the service of those who are suffering, as I have suffered, by stating the following facts:

I have for two years and upwards been afflicted with CHRONIC RHEUMATISM, and until a few weeks ago I have never found anything that afforded me any relief. For three months of the time I was unable to feed myself, and for the last five months my arms have been so bent that I have not been able to dress myself. I was five months at the Warm Springs, at San Luis Obispo, and three months at a Hydropathic Institute in Stockton, and I have been under the care of six different physicians, in the vain hope of relief. About four weeks ago I was induced by a person who had been cured by it to try a bottle of RICHARD'S REMEDY FOR RHEUMATISM, and in less than twelve hours I experienced great relief. In a few days I was enabled to straighten out my arms, and I have been getting better and gaining in strength and flesh ever since. I have now the complete use of all my limbs, and, for the first time in two years, I am out of pain. I do feel for those who suffer as I have suffered, and if they will take my advice, they will lose no time in giving the REMEDY a trial.

Yours truly, GEORGE TAYLOR.

☞ RICHARDS' REMEDY is for sale by

H. BOWMAN,
Druggist, Sacramento.

Price, $2 50 per Bottle. 20v12

The Great Pain Annihilator.

DR. E R JOHNSON WILL WARRANT TO CURE ALL cases of Asthma, Fever and Ague, Catarrh, Sore Throat, and Womb Diseases. The Doctor's success is miraculous in cases of RHEUMATISM, NEURALGIA, CONSUMPTION, GOUT, PARALYSIS, INFLAMMATION OF THE EYES, and all other diseases that human skill can reach. Rheumatic Pains removed in five minutes. Some of the afflicted that visit him come from one to six hundred miles, and soon find relief. Persons at a distance can be cured at home by addressing a letter to Dr. Johnson, No. 700 Market Street, San Francisco, stating case, symptoms, length of time the disease has continued, and have medicine promptly forwarded to any part of the country, with full and plain directions. ☞—Consultation by letter or otherwise, FREE. 16v12-1m

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Practical Machinists and Iron Founders,

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STEAM ENGINES,

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SAW MILLS, FLOUR MILLS,

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Now so extensively used in the East and in this State. Requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

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Which only needs examination to be appreciated.

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All Wheels warranted to give the power as set forth, or the money will be refunded.

Sole makers for this coast of the "Pendergast White Iron Stamp Shoes and Dies.

None genuine unless obtained from us. Every one warranted.

Patented Machinery of all kinds will be furnished by us at market prices. Particular attention given to drawings and specifications of machinery, which will be made to order. The patronage of the public is respectfully solicited. 19v12

CALIFORNIA BUILDING AND LOAN SOCIETY

Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING AND LOAN SOCIETY, announce to the public the removal of their business to their

NEW BANKING HOUSE,

California Street, one Door from Sansome.

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The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
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Third—The Erection of Manufactories.
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

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ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

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HALF PER CENT PER MONTH will be allowed on the daily balances to credit of Current Banking Accounts—the same to be ascertained and credited monthly.

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PROMPTLY ACKNOWLEDGED.

INTEREST on all sums commences from the day of deposit.

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16v12-3m

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Bedding and Furniture,

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Blankets, Comforters, Sheets, Etc.,

504 and 506 Sansome street, near Clay,
San Francisco.

☞ This establishment is now generally known to be the CHEAPEST PLACE in the city for good Bedding. 21v12-3m

TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

JOHN TAYLOR & CO.

IMPORTERS,

AND DEALERS IN

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

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SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco March 6, 1865. 11v10-tf

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JACKSON STREET,

BETWEEN MONTGOMERY AND KEARNY STS.,

SAN FRANCISCO, CAL.

THIS OLD ESTABLISHED HOUSE IS IN PERFECT order for the accommodation of guests. Persons seeking comfort and economy will find this the best Hotel in the city to stop at. The Beds are new and in good order, and the Rooms well ventilated. The Table will always be supplied with the best in the market.

Prices varying from $1 50 to $2 per day for Board and Room.

FINE BATH HOUSE AND BARBER SHOP ATTACHED TO THE HOUSE.

☞ Teams belonging to the House will be in attendance at all the boats and cars to convey passengers to the House FREE OF CHARGE, and to any part of the city for 50 cents.

21v12 F. E. WEYGANT, Proprietor.

INTERNATIONAL HOTEL,

K Street, between Third and Fourth,

SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

BRANNAN HOUSE,

(Formerly Vernon,)

J street, between Front and Second streets,

SACRAMENTO.

FIRST CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m MRS. J. DUNN, Proprietress.

WHAT CHEER HOUSE,

SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.

7v12-3m A. J. SENATZ, Proprietor.

The Bank of California.

SAN FRANCISCO, MAY 9, 1866.

NOTICE.—AT A MEETING OF THE STOCKHOLDERS of this Bank, held on the 8th instant, it was resolved to increase the Capital Stock of the Corporation to $5,000,000, Gold, to take effect on the FIRST DAY OF JULY next, and the President and Cashier are authorized to receive subscriptions for $2,000,000 of said Capital Stock. Parties desirous of subscribing will make application at the Bank, either personally or by letter, when further details will be given.

D. O. MILLS, President.
19v12-1m W. C. RALSTON, Cashier.

WM. H. KEITH & CO.,

Chemists and Apothecaries,

PROPRIETORS AND MANUFACTURERS OF

WM. H. KEITH & CO'S WINE OF PEPSINE, OR RENNET Wine, a new and efficacious remedy for Dyspepsia, Gastralgia, etc. WM. H. KEITH & CO'S GLUCOLEIN, a new and valuable compound of Cod Liver Oil, put up in glass jars. WM. H. KEITH & CO'S LEMON APERIENT, or Purgative Lemonade, an agreeable, cooling and active purgative, or mild laxative, as required. WM. H. KEITH & CO'S SAPONACEOUS TOOTH POWDER. DEVINE'S PITCH LOZENGES, for the cure of coughs and colds. Wm. H. Keith & Co's Florentine Tooth Wash. Wm. H. Keith & Co's Oranula Effervescent Citrate of Magnesia. Wm. H. Keith & Co's Rosemary and Castor Oil Hair Invigorator.

WM. H. KEITH & Co. being in frequent communication with Eastern and European markets, are continually renewing their stock of Pure Drugs, Rare Chemicals, Fancy Goods, and Toilet Articles, Pure Oils, etc. They also give special attention to replenishing ship medicine chests.

Also, just received, a large and well-selected invoice of HERNSTEIN'S CELEBRATED INSTRUMENTS, consisting in part of Amputating and Obstetric sets, Pocket Cases, etc.

Physicians and others at a distance ordering goods from us, can depend upon having their orders filled with the same regard to QUALITY and PRICE, as though obtained in person, and we give particular attention to packing and forwarding the same.

WM. H. KEITH CO.,
Apothecaries' Hall, No. 521 Montgomery street,
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538 Clay Street. PAPER WAREHOUSE AND Printers' Materials CHAS. F. ROBBINS & CO. 538 Clay Street.
10-v12

Mining Summary.

CALIFORNIA.

Alpine County—

The Monitor *Gazette* of May 26th, says:

Mr. J. L. French, negotiated with the Mullan G. & S. M. Co. for one hundred tons of ore to be taken from the level now opened by their tunnel. Mr. F. has secured the Pioneer mill and will commence working the ors next week. The ore is from near the surface. The Company will continue the shaft, having nothing to do with taking out the ore. The *Gazette* says, of the "blue sulphuret ore" from this claim: The matrix, or gangue, is a decomposed quartz, and several veins from one to three inches thick run through the other vein-rock of the Mullan lode. The sample before us assays over ninety dollars in silver and gold to the ton.

Amador County—

The *Dispatch* of May 26th, has thess items:

In Vaughan & Co's claim, on the Soroeco lode, rock hes heen struck that will pay $50 per ton by the ordinary working proeess. The vein of quartz is full four feet thick, and so far as prospected, all between the walls will pay the above average....The Potosi claim, located at Drytown, and owned by Messrs. Hickson & Miller, will undoubtedly prove to be the richest strike ever mede in the county. The ledge in the shaft now being sunk is near four feet thick between the walls, and will pay not less than $100 per ton by the milling process. We learn that free gold is visible to the naked eye in nearly every piece of rock in the dump pile. The company are makiug arrangements to build a new mill, to be run by water power, the presnt summer. [Since the above was in type, we learn that this claim has been sold to a San Franeiseo company for $60,000.]....The Drytown or "Seaton lode" is paying well, and will soon commence crushing eome very rich rock taken from their new shaft....Kinsmill & Co., of Fiddletown, at the depth of a hundred feet, have struck gravel in the bottom of their shaft, whieh is located in the hill in the rear of the town, which prospscts from five cents to a bit to the pan. The company will erect arastras in a few weeks for the purpose of grinding and washing the dirt. It being cement, this process is considered absolutely necessary to success in working the elaim.

Correspondence of same paper, from Volcano, says:

The Golden Gate lead is improving in richness as they advanee into the hill. They ere taking very rich rock out of the Pinneer lead. The Vaughn lead is in good eondition. Fogus Co. are working the old Sorocco lead and getting good pay. The Confidenee lead pays $3 per ton for the rock as taken out. Barron & Co. are produeing good rock. Tulloek & Co. will commenee work on the Wide West immediately. Teeples & Co. are about to commenee hauling roek to the mill for crushing. McGhee & Anderson have discovered a rieh lead. They have a shaft sunk twenty feet. Placer miners are doing well. There are some claims on Voleano Flat paying as high as $25 per day to the hand. Philbrook & Co. have struek rich pay dirt in the new tunnel they are running.

From the *Ledger* we learn:

The Spanieh lode, about two miles eouth of town, was sold last Saturday to Messrs Fenton, Jenks & Goddard, for six thousaud dollars. A mill is to be erected....A new discovery, called the 'Vatiean,' has heen made about one mile and a half above Amador City, on Amador creek. The rock, so far as unearthed, is pronounced hy judges to be of superior quality....A few days since the owners of the old Hinkson claim struck unprecedented rich rock—so rich that pure gold can be seen in every piece of rock taken out, and some of it, after being broken with a hammer, is held together hy streaks of gold....The result of the late clean-up of one hundred tons of rock from the Kennedy claim, crushed in the Coney mill, was $4,400.

Calaveras County—

The *Courier* says: "Numbers of rich leads have been discovered during the past winter, and there are now more men employed in the district than ever before at one time. The custom mills are all crowded, and there is now more rock out than they can possibly crush during the season....The lead in the new shaft of the Kentucky company is said to be improving in quality as the miners go down on it....The total amount of ore shipments from the Union mine for the six days ending May 17th, was 1,053,135 pounds, equal to 526 tons, 1135 pounds....A gold-bearing lead, said to be 40 feet wide, has secently heen discovered near the Big Reservoir. The rock is partially decomposed, and is believed to be rich."....The *Chronicle* says: "Quartz mining and prospecting still seem to be on the increase. We have heard of several new discoveries being made within the last week, upon most of which men are already at work....The Sulphuret lead, located in Dutchman's Gulch, is being systematically and rapidly developed. A large number of men are employed in this mine, and it is the intention of the company to erect a mill the present season."....The San Andreas *Register* says: "There are several placer claims near San Antonio Camp in this county, which are paying very good wages. Frank Caneo & Co. have a very good elaim about a quarter of a mile above, on whieh they have sunk a shaft 90 feet, and found pay dirt nearly all the way down. They are now drifting et the bottom of the shaft. In the first two days' work in the drilt they took out 4 oz. and $5."

Humboldt County—

The *Times* correspondent writes from Mattole—"The North Fork well has temporarily snspended the drilling. Prospects were good—drift reached 250½ feet—quantity of oil increasing. Water power is to be applied.... Depth reached in the Irwin, Davis, 730 feet. ....The engine at the Jeffrey well is at work. The Allen & Sutter eompany at McNutt's Guleh, expect to commenee work soon.... The Yosemite is down 200 feet, with an increased quantity of gas."

Lake County—

The Clear Lake *Times* reports the discovery in that county of an immense deposit of volcanic sulphur. A eompany are sending up machinery for their elaims, below Lakeport, and will soon be prepared to turn out a refined article of that mineral....A correspondent of that paper writes: "I have about one pound of pure alum, beautifully crystallized, obtained from the imperfect washing of six or seven pounds of aluminous clay, whieh was taken from the Kelsey Creek alum bank. The hank is most favorably located for working."

Mariposa County—

The *Free Press* of May 26th, says: Green, Snediker & Co., are down in their shaft over one hundred feet. The ore is improving in quality. The vein is situated near Herron's ranch, and is known as the Green Dozier eopper vein.

Nevada County—

The *Gazette* has these items: Three tunnels have been run at the Eureka mine; one of 30 feet, one of 100 feet and one of 75 feet. From the last mentioned, whieh is several hundred feet lower on the ledge than the others, very rieh rock is now being teken. An offer of $50,000 for the claim on Tuesday of last week, was rejected....We are informed that very rich roek was struck in the Federal Loan quertz ledge yesterday. This ledge is situated in the Leeompton distriet, a mile and a half above the Orieutal mill....Five hundred and ten kegs of powder were used in a single blast the other day, at the hydraulie claims of the American eompany, on Manzanita Hill, near North San Juan. Most of the population of San Juan went out to witness it. The *Gazette* says: It made but little noise, and at a distance of three or four hundred yards, where the spectators stood, there was hut a slight jar; hut the entire hill, a hundred and fifty feet in depth, two hundred feet in width, and for a distance back of about three hundred feet, wes lifted eeveral feet in the air, when it settled down, heing thoroughly shaken, and prepared for hydraulicing....The large 30-stamp mill, whieh is now being erected at the Ophir mine, will he completed about the middle of June....A number of miners from Little York township were in Nevada yesterday, to take steps to prevent the railroad eompany aequiring a title to their claims.... Buchmau & Curran, owners of a hill elaim between Little York and Steep Hollow, have been running a tunnel for some months, and on Friday last they struck the blue lead.

The *National* says: Rock which assays $100 to the ton has heen taken from a depth of thirty feet in the Stockton or Lowery ledge, nine miles below Grass Valley....B. L. Lamarque has commeneed suit to recover eight claims, each sixty feet square, in the center of Lafayette Hill, which is now being worked by the North Star company....The Ione mine still continues to yield handsomely to its owners, Sam. Curtis, and others. In a nine days run, with a 10-stamp mill, over nine thousand dollars was taken out, a few days ago....The Fenian company is driving their tunnel with much energy....T. A. Sullivan has resumed work on the Independent ledge, which he prospected in 1854. It is three and a half miles from Eureka....The Moniqua ledge, near Rough and Ready, the above place, promises to he a rich one. The company are now down on the ledge only six feet and have taken out about two tons of rock, which has been crushed at the mill of the Smith brothers, near Rough and Ready. The two tons realized forty dollars....The Manzanita claim, near Nevada, says the *Union*, is cleaniug up at the rate of $1,200 per week. It was the first quartz claim worked in that vicinity.

Excelsior.—The new enow was two feet deep, making a total depth last Sunday, between five and six feet....Meadow Lake is crowded with people. The hotels are all full, and several more are being erected. Many have left disgusted, not with the mines, but with the snow—says the *Gazette*....Same paper says: The first suit from Meadow Lake township was eommenced in the Distriet Court yesterday. It was eommeneed by Thomas A. Hall against P. D. Brownell and the Mohawk and Montreal gold and silver mining eompany. ....A eorrespondent of the San Francisco *Bulletin*, writing from Meadow Lake, May 26th, says: The snow is still some three and a half feet in depth....None of the mills whieh are here at present are running, and from this fact many injurious reports have heen circulated regarding the distriet.

Placer County—

The *Stars and Stripes* of May 23d has these items:

The proprietors of the Baker & Crosby mine, otherwise known as the Banker mine, at Whisky Diggings, are about putting up a dozen of Baux & Guiod's pans. By the proeess whieh they have heretofore used they ohtained only $6 or $7 per ton from the ore; while Baux & Guiod's pans produce $36 per ton from the same rock....Mr. Wahlgren and partner, who took out $1,400 in a few hours, last week, were notified by Daniel Chonte, of Ophir, that he elaimed the ledge, and that they must desist from working it. A lawsuit will probably ensue....The Wells Co. are down forty feet. Five tons of the rock are heing crushed at the Gold Hill mill, as a test.

Plumas County—

From the Quincy *Union* we clip tho following:

The elaims of Gentry & Co., directly below the town of Poorman's, are held at $1,500 per shere....Moore & Co. have had good pay for the last few weeks in their tunnel claims, having worked past the "eave" which prevented working the elaims to a good advantage....Alex. Turner & Co., on the North Fork, struck gravel in their tunnel two weeks ago; since then they have made from $12 to $15 per day to the hand....Thomas Nohrmen and Cox & Co. have good claims at the upper end of Big Flat, and are making from $8 to $10 per day to the haud....The North Star Co. have driven their tunnel in 200 feet. They expect, from the appearanee of the rock in the tunnel, to strike gravel again within eighty feet....Allen & Co. and Reed & Co., at Franklin Hill, are piping out $6 per day to the hand....Baker & Co.'s tunnel is at present 1,100 feet long, and is supposed to be within 100 feet of the channel....The mines at Little Grass Valley seem at present to be a failure. ....The Premium ledge, at Indian Valley, is being worked with great activity. Five or six teams are constantly employed hauling quartz from this mine to the Crescent Mills, averaging about 30 tons per day. The last run on this rock paid over $17 to the ton.... The Plumas ledge seems to be a perfect mass of quartz, no walls having yet been found, and has already a width of 30 feet. This rock pays about $16 to the ton....Some fine looking ore is now being taken from the Prince copper ledge.

Correspondent of same paper from Mineral Township, May 20th, says:

Some few hydraulic claims have commeneed to clean up with flattering prospects. A. Droge & Co., on Rush Creek Flat, eleaned up for two month's work of two men, $1,300. Charley Ketcher is making in his claim half an ounce per day. Jim Smith and Reddy and several other companies are getting into the bed of the creek once more, and are making from seven to eight dollars per day.

J. A. Jacks & Co., one mile below Spanish Ranch, have struck pay in their drilting diggings and have got as high as $3.50 to the pan. So eays the Marysville *Appeal.*

Sierra County—

The *Messenger* of May 26, says the Holmes tunnel is now in 200 feet....An amicable arrangement has been effected between the Richardson and Buffalo companies, at Fir Cap Hill. At the last meeting they consolidated under the name of "Shamrock M. Co." with the determination to proseente work vigorously.

Correspondence of same, from Alleghany, May 20th, says:

The Union still takee the lead on this side of the ridge, crushing its many tons of fine rock every day. They are about to sink a shaft or incline, so as to work to greater advantage....The companies on each side of the Union are also opening rich seams of dark looking quartz, impregnated with iron, sulphurets and plenty of glittering ore....The Fremont Co., located above, is doing a handsome thing in gravel, while the old Pacific has been *reconstructed* and is again ready for active operations upon its gravel deposits....The Ditto, Fac-Simile, and other ledges located in this ravine, are being thoroughly developed.

South Fork correspondent of same paper says that Louis Bernhardt, of New York Flat, has his extensive hank claims in successful operation.

Tulare County—

The Havilah correspondent of the Visalia *Delta*, May 13th, says: "The prospecting excitement still runs high, and several of the lucky ones have made profitable sales. All we lack here is capital. Enough of first class lodes have been discovered within a radius of twenty miles to employ profitably millions of capital. I have made a trip to the Piute district, and as far as I can judge it is immensely rich. Over one hundred leads have already deen discovered."

The Mariposa *Gazette* says: "We received a eall the other dey from W. M. Rains, formerly of Mariposa, but now residing at Hevilah, in the new county of Kern. He rsports that the Clear Creek country is flourishing—plenty of work and lively times. A number of new and rich leads have been struck quite recently, and the country is being rapidly developed.

Tuolumne County—

The *Courier* of May 26th, says: The Junction Company on Wood's creek, are making good wages working ground supposed to be worthless. There are many other places around there that would pay equally as well if worked in the same manner.

Yuba County—

The Marysville *Appeal* of May 24th, says: We understand that there is considerable excitement at Brown's Valley, in consequences of the rich rock struek in the Pennsylvania claim, and the resumption of work on the Yuha. Many of the city lots which have been allowed to go to the common, have heen re-elaimed, and are being re-fenced....The Jefferson pay streak has finally heen reached in the Pennsylvania shaft. The ledge is five feet in thickness, and daily increasing. The quartz is rich....They intend to put up again their machinery in the Daniel Webster, and resume work within a few days. They own 3,600 feet of ground, whieh is divided into 2,000 shares. ....The Yuba Company settled up their money matters to-day, and work will be rssumed without delay....The Donnebroge got rid this week of their water, and good quartz will now be taken out....They are still persevering with the Sweet Vengeance....The Jefferson has thousands of tons of good rock, and even some very rieh quartz in sight.

NEVADA.

Virginia—

The Gold Hill *News* reports a strike of very rich silver ore in the Crown Point mine at that pleee. One speeimen is deserihed as weighing thirty pounds, which had in the center an elegant crystallized eave, the size of a large tea cup, across the outer edges of whieh were several thick strands of silver wire, gold spengled and bright speeks of pure silver, beside one or two bunches of tangled wire silver. Of another speeimen the *News* says: "The largest and, proportionate to its size, the richest mass of silver ore ever taken out of any eilver mine here, was brought to the surface at about four o'clock yeaterday afternoon, teken out of the same 'drift.' Its weight is about 500 pounds. It consists entirely of black silver sulphurets. An assay showed a yield at the rate of $3,000 per ton."

The *Enterprise* speaks of a 302 ounce hriek from the McGregor ledge, Clan Alpine distriet, owned hy a New York eompany.

Dayton—

The Lyon County *Sentinel* of May 26th, saye the Dayton Tailings Company have now on hand upward of 80,000 tons of tailings, making an average of 400 tons ae the accumulation of every 24 hours. The company has contracted to furnish Ruggles, Helm & Co. 100,000 tons at one dollar per ton....The Piute claim, near Mason's ranch, has been worked steadily all the winter and spring hy its proprietors. They have a shaft down 160 feet, with such developments as in their opinion warrant the ereeting of reduction works. We understand they have found very rich ore. It is expected that the furnace will be in operation in a few days.

Reese River—

From the *Reveille* we gather the following: The sale of first class mining property, known as the La Plata Silver Mining company, comprising four parallel veins, named the Fairmount, Bigler, and Twin Ophirs, Nos. 1 and 2, situated in the North Twin River Mining district, has been consummated for the eum of $90,000 in gold coin....Dr. Blatchly hae returned from the Battle Mountain copper mines. They are 100 miles north of Austin....The property of the La Plata Silver Mining company embraces four ledges, known as the Fairmount, Bigler, and Twin Ophirs Nos. 1 and 2, containing in the aggregate 6,800 feet, beside 800 acres of woodland, upon which there are excellent mill sites within a short distance of the mines.

A hrick worth $227.56 was the product of 1,450 pounds of ore from the Collax ledge, South Bend company. The owners have beeu trying to sell the mine at the East, but failing, concluded to work it themselves. This hrick

was the first fruit....We learn from Nelson Brobant that preparations are being made for the erection of another mill at Kingston.... The Booth Brothers have returned from a visit to New York. They will proceed immediately to develop their prospecting in North Twin River district. They are the owners of the well-known Buckeye mine....We saw today about an ounce of cream-colored quartz from the Gold Belt series, crushed in a mortar and then washed in clear water, showing from twenty to twenty-five cents of fine gold.

The Nye County *News* has these items: The Great Eastern is destined to become one of the most valuable pieces of property in the State, and owing to the immense size of the ledge, and facilities for working, is not surpassed by any claim yet discovered—not even the famous Murphy, of Twin River....The Knickerbocker mill is nearly completed, and could, in a case of necessity, be made ready for operations in a few days.....Correspondence of the *News* from Western, Mammoth district, says the main shaft in the Vigilante mine is down 80 feet. Besides this, they have opened their lode in numerous places, for a distance of 800 feet along its length. At many of the openings the ore is remarkably rich and pure, working very uniformly from $250 to $280 per ton.....Same, speaking of the Northern Light: The lode has from three to five feet of pay ore, and has worked right through $79 per ton. From the prospecting shaft (about four and a half by six feet wide, and 115 feet deep), over 70 tons of very rich ore have been taken out, and now lies upon the dump.

Esmeralda--

The *Union* of May 26th, has the following: Kearsarge, so little known throughout California, is just emerging into light. Capt. Paul, who has labored so diligently against many adverse circumstances, has at last commenced crushing ore from the Kearsarge district. Some of the same rock was crushed at Gold Hill, yielding over one thousand dollars per ton, by the mill process. Three other mills will soon be in operation, viz: The Kearsarge, Dayton and Dorr's mill...." The Philadelphia Silver Mining Company, of Nevada" is the new mining corporation which has gone to work to develop the mines in the Discovery tunnel. The company was organized some time since in Philadelphia, and is composed, we are informed, of capitalists who have abundant means....Correspondent of same paper, writing from Partzwick, Mono county, says: As to the success of our mines there can no longer be a doubt....From 2,900 pounds of ore, taken from the Elmira and Crocker lodes 262 pounds of bullion were obtained, each pound of which being worth $3.44, prove the hidden wealth of our hills.

Pahranagat--

The *Reveille* has seen a letter from W. T. Nichols, in which he speaks quite encouragingly of the mines, and says that a Mr. Hodges from Los Angeles, and Mr. Dahlgren from New York, have arrived in the district with materials for erecting two smelting furnaces, which they have already commenced putting up. They brought also complete stocks of mining tools, and they intend prosecuting work at their mine immediately....Governor Blasdell and a portion of his party arrived there on the 11th inst. They had traveled on foot 150 miles, and were pretty well used up—the governor looking worn and jaded. The party had divided and traveled for Pahranagat by different routes, the second of which has not yet been heard from.

OREGON.

The Jacksonville *Times* says that a quartz lead has been discovered in Lightning Gulch, Josephine Co., from which $5,400 was taken out in two hours. The contents of one pan was $2.000. The name of the discoverer is Malichi.

IDAHO.

Albert D. Richardson, the thirtieth of whose letters the New York *Tribune* has just been published, gives the following account of the difficulty between the "Poorman" and "Hays & Ray" companies:

The Hays & Ray lode, as claimed and staked in August last, was 1,600 feet long. A month later, other parties claimed and staked for 1,400 feet a lode which they called the Poorman, crossing the Hays & Ray near the middle, at an acute angle, the two lines of stakes exactly representing the letter X. The Poorman began to work their alleged lode, not at either end, but at the very point of crossing the Hays & Ray, and there struck a pocket or chimney of ore of unprecedented richness—indeed almost pure silver. Portions of this ore actually yielded by the mill process 50 to 60 per cent of silver—a result never before equaled in mining history, and giving rise to the report that Idaho miners had found the silver in 'chunks' as large as candle boxes. It is claimed that they took out $250,000 in two weeks. They certainly harvested large quantities of ore, and carried it away by night on the back of mules, over the mountains, to be crushed in Portland, Oregon. Probably it is the first silver ore ever discovered which would pay to steal or carry away 500 miles in a crude state. The Hays & Ray claimed that the Poorman Ledge did not exist, but that the adverse party were taking out and reducing their ore. The 'Poorman' not only denied this, but with an armed force drove off the Hays & Ray workmen from a portion of the ledge, and threatened bloody warfare unless they could have their 'rights.' After long investigation Judge Myron Kelly of the United States District Court granted an injunction restraining the Poorman party from taking any more ore at present, ordering both contestants to sink shafts and trace their lodes to the disputed point, that a jury might determine which actually owned the ground. This decision, obviously just and equitable, caused intense indignation among the disconfited suitors. It was even threatened to tar and feather the Judge, and a strong attempt is being made for his removal.

The Red Bluff *Independent* of May 23d, says that the amount of freight shipped within the past week for Owyhee, including that now ready to start, is 274,000 pounds. The freight money alone, at eleven cents per pound, would be $32,340. Teams carrying six to eight thousand pounds are constantly running....The mail stages will commence running on the first of July.

COLORADO.

The *Journal* of May 8th, has these items:

Large Yield.—Mr. Nash, of Russel Gulch, cleaned up last Friday from three-fifths of a cord of ore from the Amberg lode, $171.50, at the rate of about $420 per cord....Alfred Papin, at an average depth of 25 feet, has uncovered a two foot and a half crevice of argentiferous ore on Nos. 3 and 5 east, on the French lode, situate in Russell district....In sinking a coal shaft at Atchinson, they have discovered enormous quantities of the finest yellow ochre. The shaft has been sunk to a depth of 260 feet, going through two thin veins of coal. They expect to strike a six foot vein within the next 50 feet....Mr. Tyrer, of Spring Gulch, Clear Creek county, reports mining looking up in that section, considerable prospecting being done, and new discoveries of lodes being made....Mr. C. S. Stowell, of South Boulder, has just returned from Boston, where he has organized a company with a paid in capital of $50.000, for operating in Argentine district, developing lodes discovered last summer, and exploring for more. Mr. Stowell will commence work as soon as the weather will permit....The Fort Scott *Press* says, in the process of boring for oil in that vicinity by the Fort Scott Oil Co., they discovered at the depth of 400 feet a vein of coal eight feet in thickness. The company are still boring for oil, with every prospect of success....The *Register* gives the yield of ten cords Narragansett Company's Gregory ore—193½ oz. of gold. According to the tests by assay, this was only about 60 per cent. of the bullion in the ore....The Narragansett Company retorted 122 ounces from five days' run of a part of their mill, yesterday....Mr. Fitzpatrick, of the Gunnell Company, made his usual shipment, being a handsome retort weighing 142 ounces. ....The First National Mining Company put in an appearance yesterday evening with 57 oz. 18 pennyweights....Mr. Cameron, gulch mining on Clear creek below Black Hawk, is taking out on the average, about eight dollars per day to the hand....Lyon's last shipment of bullion weighed 52½ pounds Troy, 23⅓ parts being gold. The above amount was taken from Gregory ore, on which one furnace was employed nearly two weeks.

ARIZONA.

The *Miner* of May 9th, says the feeling there is now largely in favor of gold quartz; the working of it being so much simpler and cheaper than that of silver ore.....Jack Swilling was to leave the Pima Villages on the first of June, with his prospecting party for the White Mountain region....Two hundred dollars a ton was the yield at a late clean-up of rock, not assorted, from the Accidental vein....A portion of the timber for the Wunderlich & Borger mill has been taken from Prescott to Big Bug. It is not yet known when the mill will arrive....The *Miner* has seen some of the (placer) gold taken out by the Excelsior company, on lower Lynx Creek, and speaks favorably of its prospects....A part of one of the Thunderbolt company's mills had arrived at Prescott. The balance was expected within the month. It is to be driven by a "Little Giant" engine.

The *Alta*'s Arizona correspondent under date April 3d, has the following items:

The Moss lead is being rapidly developed. ....The Michigan and Parsons are being worked by Mr. Hardy, with flattering prospects.....Horn silver is abundant in the croppings of the Dayton....The further development of the Leland will commence immediately, a supply of powder, etc., having been received. ....At the Techatticup, in El Dorado Cañon, ore was being taken out worth $60 per ton; some had yielded $90 to the ton....Several lots of the Green City ore were said to have yielded over $100 per ton....Many of the mines in the same district, partially opened in 1863 and '64, but since neglected, are now forfeited, the territorial and district laws having not been complied with. Several of those, believed to be the best, are now being relocated. The writer goes on to say that now is the time, if ever, for certain parties who, two or three years ago, expended from two to eight thousand dollars on their claims to act—if they would not lose all that they have done. ....The Colorado mill is being rebuilt. The company have already expended $33,000. They are to crush Techatticup rock on contract..... Six hundred tons of copper ore were at Mineral Hill, and 200 tons at Empire Flat, waiting shipment to San Francisco.

MONTANA.

The Amador *Dispatch* has been shown a letter from a former resident of Fiddletown, written at Grizzly Gulch, Montana, April 26th. We quote:

"Three gulches have been discovered here of great richness, and now producing immense quantities of gold. They are in the Blackfoot country, and known as Elk creek, Bear creek and Keep Cool gulch. I think that there are better mines here than were ever worked in California. On McClellan gulch one claim paid in a single week, seventeen thousand dollars. I know of miners leaving this country, carrying with them six hundred pounds of clean gold dust. Wages here are—for ordinary hands $6 and for good drifters $12 per day."

The Helena correspondent of the *Post*, May 8th, gives these items: The first saddle train of the season, from Walla Walla, arrived here last week.....Trout creek and Missouri river quartz, especially that bearing silver, is attracting much attention All of Mr. Worden's machinery has arrived, and is being rapidly put together on the Cliff extension of the big lead. Colonel Keyser pushes his mill on the same lead, and the Parson's tunnel on the Avant Jour extension of the same lead, which is designed to strike the ledge at a depth of one hundred and seventy-five feet is nearly completed....From the *Post* of 12th inst., we gather the following: There has been within the past few days a brisk stampede to Wigwam gulch, on the Madison slope, about twelve miles from this city. The reports up to date are favorable....The Richmond Hill lode, one of the numerous quartz ledges discovered in Hot Spring district during last fall, assays at a depth of twenty-six feet, $300 per ton.... We have seen some excellent specimens of coarse gold taken from Wisconsin gulch—a locality which has only one fault, in a mining point of view, that of being too near this city to be appreciated as it deserves. Mr. Fairweather, one of the discoverers of Alder gulch, is running a set of hydraulic works, and taking out good pay....All those in Alder gulch, who were ready for a start are doing well, from Summit to Junction, and those repairing damages or starting into their claims are busy and hopeful.

Garnet Lode.—This really wonderful deposit of garnets is in the form of a regular lode—a mass of garnets. As yet the pieces taken out free from fissures are comparatively small, though some will weigh an ounce, when cut. Large quantities have been sent East, and ornaments of the most beautiful kind can be manufactured from them. This is a fine place for mineral curiosities; yesterday we saw in the hands of Mr. Lea. F. Marston, a fine Moss Agate....Correspondent of same paper at Diamond City, says: "New York gulch is attracting a good deal of attention at present, located about twenty-five miles down the river from here. It is about five miles in length. Throughout nearly one mile of the lower end of the gulch, the bed rock is dry, so that the honest miner can at once begin to take out some of the auriferous deposits. Laboring under numerous difficulties, backward spring, no lumber, deep diggings—forty to fifty feet—little money, and shut in by hills and cañons, they are doing well. Quite a number of claims are washing twenty to thirty dollars a day to the hand.; others are almost ready, There is quartz, here and hereabouts, that will yield from three to four thousand dollars to the ton. A better quartz section I have not seen than on the banks of Trout creek and its tributaries. The pay streak in New York gulch is from forty to one hundred feet wide and upwards, and very even. There is also abundance of good timber at hand, and a fine range for stock. The bed rock is shelly slate, standing on edge, and inclined slightly up the gulch. Gold is on the coarse order, well washed, and of a deep yellow color."....German gulch correspondent of same, April 21st, says: Mining affairs are not very lively yet. The weather is very unfavorable, and there is a good deal of snow yet in the gulch. Some snow falls nearly every day, yet the reign of summer is becoming more visible daily....A "Tuolumne boy" has received a letter from a friend in Montana, which contains these words: "I and my partner have got four claims, and in less than a year expect to make fifty thousand dollars apiece. I know no have a fortune in sight. I want you, Bill, to send me up about fifty dollars, if you can spare that much, and I'll pay you mighty good interest on it, sure."....The Dulles *Mountaineer* says there is "scarcely a day that parties are not leaving here for Montana by the way of White Bluffs and Pen d'Oreille Lake; and the testimony of every one of them is that it is a good road, with plenty of wood, water and grass for camping purposes."....The Virginia papers announce the passage through that city of seven men from Montana, bound Californiaward. They say that many others, disgusted by disappointments in that distant region, are on their way back.

NEW MEXICO.

A Santa Fe paper says: The gold excitement is on the increase. Parties of prospectors are leaving town daily to prospect the mountains both near and far. Thus far some valuable discoveries have been made, and the fortunate finders propose to commence work upon them as soon as the necessary arrangements can be made. We hear that some rich discoveries have been made in the vicinity of Fort Cummings....An expedition will start from Santa Fe, on or about the 20th of July of the present year, for the placer gold regions near the head waters of the northern tributaries of the Gila, in the southwestern part of the Territory.

The Denver *News* says: Gold and silver mines of extraordinary richness have been lately discovered near Albuquerque and Lembuda. Trials have been made of ores recently taken out, which yielded from eleven ounces of quartz two hundred and forty grains of pure gold. The mining laws of this Territory allow the discoverer eighteen hundred feet front as his claim.

BRITISH COLUMBIA.

A St. Paul despatch says—"Gov. McFavish has just passed through St. Paul, en route to England. He reports the discovery of large nuggets of gold near Fort Geury in British America, on the lands of the Hudson Bay Co. It has been kept a secret for some time, but the discovery has finally leaked out, and there is much excitement."

Beautiful Extract.—When the summer of youth is slowly wasting away on the nightfall of age, and the shadow of the past becomes deeper and deeper, and life wears to its close, it is pleasant to look back through the vista of time upon the sorrows and felicities of our earliest years. If we have a home to shelter, and hearts to rejoice with us, and friends have been gathered together around our firesides, the rough place of wayfaring will have been worn and smoothed away in the twilight, while the many spots we have passed through will grow brighter and more beautiful. Happy indeed, are they whose intercourse with the world has not changed the tone of their holier feelings, or broken those musical chords of the heart, whose vibrations are so melodious, so tender and touching in the evening of their life.

Thermal Springs in the Reese River Region.—The *Reveille* of the 17th instant has the following:

A small group of thermal springs, lying in the northern portion of Reese River valley, has just been particularly examined by Dr. Blatchly and party, who have returned from an exploration near the Humboldt river. They are situated on the eastern side of the valley, about a mile from the river, and sixty miles north from Austin. The principal springs comprise a group of four, lying within a circle of about seventy-five yards in diameter. The openings or mouths of the springs are generally circular in shape, the greatest of which is about thirty yards in diameter, and the smallest eight feet in diameter. A large volume of warm water gushes from the two larger springs, and it varies in temperature from 110 to 180 degrees. From the two lesser springs only a slight amount of water now feebly issues.

English Patents.—In 1864, 2,024 patents passed the seal. The patents are granted for fourteen years, but nearly seventy per cent. lapse and become void at the end of the third year by the non-payment of the stamp duty of £50 then payable, and nearly ninety per cent. become void at the end of the seventh year, when a further stamp duty of £100 is payable.

About Vinegar.—It was an observation made by Scheele, but the fact has recently been published as a new discovery, that ordinary brown vinegar will keep bright and clear for any length of time if heated to the boiling point for a few minutes.

Metallic Absorption.—By taking up a portion of the metal, snuff becomes poisonous if kept in leaden vessels or wrapped in tinfoil containing lead.

Mining and Scientific Press.

W. B. EWER.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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San Francisco:

Saturday Morning, June 2, 1866.

PROGRESS OF THE MINERAL LAND SALE QUESTION IN WASHINGTON.—Neither the House nor Senate Committees of Congress heve es yet mede eny report apoa the hills now before Congress for the sele of the minerel lands. It is thought thet the Senete Committee may possibly report favorably on Mr. Sherman's bill, as ths hill is said to be receivsd in a favnrable light hy the Chairman of that Committee. The House Committee are a unit in their oppositioa to hoth Sherman's and Julien's hills, and helieve thet any further legislation hy Congress in refereace to the mines is annecessary, further thea giving titles to those in possession and who may hereafter acquire e possessory title. They know that the mines are aow productive to the Government, and are es setisfied thet eay legisletive enectments teading to hemper the mines will only kill the goose thet lays the goldea egg. It hes been suggested that when Congress edjourns, soiae of those members who are so desirous of meddling in mining matters shall hs sent to the mining regions to try diggings for a while, to give them some edequate idee, if aot experience, of whnt mines and mining ere when viewed from a different stand-point then the Hell of the House of Repreeentetives at Weshington.

A "BILK."—There is a paper published in San Francisco called the MINING AND SCIENTIFIC PRESS, which professes to give ell the mining news of the Pacific coest. We heve carefully senrched through thnt sheet for the past month, and failed to see one item in regard to the miaes of Oregon or Ideho; while columne ere devoted to the "played out" diggiags of California, Reese River, etc. Tbe miners in this sectioa should set that sheet down as a "hilk".—*Mountaineer, Dalles, Oregon.*

We deny the "soft impeechment." The miners of that "section" will edopt no such recommendntion, unless—contrery to the usnel charecteristics of their class—they should unfortunetely be possessed of as insigaificant, coaceited and selfish minds as the one illustreted hy the above paregraph, which heils from an Oregon *sanctum*. By examining the past nnmhers of the PRESS, they will find hoth Oregoa and Idaho represented in our mining summary, together with "California, Reese River, etc.," and other sectioas (outside of the Dalles) which the generality of miners have the good sense and geaerosity to admit ere aot yet quite "played out." The world has aot yet efforded a single weekly peper large enough to "give *all* the mining news of the Pecific coest."

ANTIMONIAL ORE.—Mr. Screnton, of Gold Rna, Plecer county, hes seent us a sample of eatimony, melted by himself from the ore. The ore occurs in a large mess, rather thnn in a veia or lode, in Humholdt Valley, Neveda. It contains a large emonnt of sulphur, and when heated by a small quentity of wood holds its heet aad buras for a long time. A location wes made by Mr. Scrnnton, ia 1865; hut he wes subsequently driven off hy Indiens. He will suon return and perfect his title.

NEW AUGER HANDLE.—Mr. E. T. Berlow hee ehown as a new auger hendle, arranged with a combiaatioa catch or spriug clasp, for holding the bit or auger in its place, end allowiag it to be readily edjusted. It appears to be a very coaveaient article for those who have much use for these implemeats.

MINING OPERATIONS NEAR MAZATLAN.

We are indebted to Mr. W. A. King for some very valuable informetion with regard to miniag operatioas in the neighhorhood of Mazetlan, Mexico. Tbese mines are located ahout sixty miles inland from the city, end near the hase of the Sierra Madre. They are in what is known as the Concordia mining district, embracing a tract of ebout fifty miles square. We are furnished with the following particulars with regard to a few of the principal miaes:

The Cassandra is an old Mexican mine, but was never worked much. It was forfeited hy its original locators and subsequently denounced by the present owners, Messrs. Burtis of this city, and Mr. Wolfskill of Los Aageles, aow superinteadent of the Alacrans M. Co. There is no machinery as yet upon the mine.

The Alacrans is also an old miae, bat has aow beea opened in a new place by its present owners. It has a very fine plaat of machinery, huilt at a cost of about $125,000 and had just heen started up when our informant left. The compaay is iacorporated in this city—Mr. L. L. Robinson, president.

The Arco is oae of the most celebreted mines of the district. The Arco company, incorporated in Stockton, has three several miaes, tho Arco, the Napoleoa ead the Concepcion. The first has hesn worked by the Spaniards to a depth of ahout 300 feet. The present company erected a mill three years since, and have worked rock chiefly from the Napoleon aad Concepcioa. They were compelled to suspend operations ahout a yeer since oa account of the war; but are aow ahout to resume work again. They will not do much, however, until the conditioa of the country hecomes more settled. The mine is uader the superintendence of Mr. C. C. Castle. The Napoleoa is virtually a new mine, and has heen opened hy a tuanel 200 feet long, opening the mine 300 feet deep. The lode is five feet wide, and easily worked without hlastiag. It is located one end a half miles from the mill. The Concepcion has been worked some hy Mexicens, and is seid to have paid as high as $100 to the ton. The new compeny have not yet done much about opening the mine.

The New York Company have their ageats now et work making ective prcpentioas to build a mill upon the Guadaloupe nnd Secramento mines.

The Trinided Compauy have en old mine, which hes heeu worked very extensively, nnd directly under the city of Copala; have machinery erected on the Parico mine five miles distant. The company suspended work some six months since, on account of the war; but will resume operations again soon.

All the mines mentioned are located within a trect of five miles square, and they are the first mines reached frum Mazatlan. There is no other Americen mechinery ia the district, except whet we have meationed. There ere quite a number of other mines, however, worked hy Mexicans, and a few held hy Americans nad other foreigners. There are also numerous miaes, some not yet loceted, farther up the flank of the Sierra Madre. There is n good wegon road from Mazetlen, forty miles to Sebestien; from that place to the mines—twenty miles—nearly everything is packed on mules; although there was once a passable wagon-road, now aseless by neglect and the effect of the rains. Americaas have no trouble in passiag hack end forth from the sea coast whea attending to their private business. Passes to all such are readily graated through hoth Mexicnn nnd French military lines. As soon as the civil affairs of the country become settled, it is thought that this mining district will hegin to assume coasiderahle importence.

TAKING THE SCHOOL CENSUS.—Persons are now engaged in taking the School census in this city, for the purpose of learning the exact aumber of childrea ia the city entitled to Public School privileges.

GOOD YIELA.—Brown's cemeat mill at You Bet, receatly turaed ont $5,642 from 264 hours' run—withia a fraction of $22 per hour.

KEROSENE OIL EXPLOSIONS.

Three deaths were recently occesioned ia Lowell, Massachusetts, hy the explosioa of kerosene lamps. Such accidents ere of more frequent occurrence than is generally supposed, and so frequent as to render it highly important that some meesures should he taken to guard the public from such danger. Good kerosene will not explode; the explosion of this oil is occasioned hy its heiag mixed with a certain quantity of henzine. Benzine may he either mixed with kerosene efter its manufacture, or it may be mixed in the process of distillation, or rather not perfectly separated from it as it should be. Bsnziae is e much cheaper fluid than kerosene; hence its use in increasing the hulk of the oil. This dangerous mixture grows out of the cupidity of the manufacturer, who seeks to palm off upon the public a cheeper commodity than that which he professes to sell. Every manufecturer has the meens at hand to test the character of his oil, and if he sells kerosene interaixed with beaziae he knows it, and does so with the view of gain, at the imminent risk of the lives aad property of the public. Minerel oils used for illumiaating purposes, are usually tested hy either measuring their iaflammahility by actual tests, which may be readily made; or by determining the density, which may he still more easily doae, by instruments which are or should be in the hands of every manufacturer and dealer.

Explosions occur in this wise: When the oil is heated heyond a certain degree, which is often reached in lamps of ordinery construction, hy the flame of the lamp heating the oil within the lamp itself, benzine is readily converted into e vepor, which, when mixed with atmospheric air, explodes with much violence, precisely like the ordinary illuminating ges. Hence it follows that if any considerable quantity of henzine is mixed with the oil, it will he converted iato vepor, and may find its way out through the vent-holes in the top nf the lamp, and he ignited by tho hlaze. Explosions, however, most frequently occur from removing the top of a lamp which has become heated from long continued burning; in which case, if poor oil has heen used, tho entire interior of the lamp is filled with the vapor of henzine, which coming in contact with a hurning lamp thnt is usually placed neer by to ohtein the light aecessery for filling, etc., is suddenly exploded, often with fatel effect, and always attended with danger.

There is no excuse whetever, bat cupidity, for palming off these dangerous compounds npon the public; but in the ehsence of severe penal enectuents to guard against such practices, it may he well to give a simple test, always withiu the reach of every one, which, although it may not he scieatifically and strictly accurate in results, will aevertheless be sufficiently so to afford a feir degree of protection from the criminal everice of those who value a few dollnrs added to their store more than the lives and property of their neighhors. The following sefety test will answer all practical purposes:

Fill a tumhler three-fourths full of moderately warm water, and then ponr one-half tablespoonful of oil upon it end stir it together; if there is any coasiderable quantity of henzine in the oil, the warmth of the water will cause it to rise in vapor; now hold a lighted metch over it, and if the vapor tekes fire hefore the flame comes in contact with the oil, sead the oil back, as it ought not to be used. Good oil will not thus ignite, aud will not burn even when a lighted match is thrown into it; but most of the edulturated oil will burn freely.

THE GOUGEYE CO., near Red Dog, receatly etarted their new cement mill, which is run by a 24-foot water wheel, driven by water from a 1¾ inch nozzle, with 140 feet of fall. This wheel drives eight stamps of 860 pounds each, at a rete of from sixty to sixty-five drops a miaute. Some very extensive hydraulic diggiags are connected with this claim. A large amount of work has beea done upoa it, aad the claim is considered a very valuahlo one. The owners are A. Tucker, E. Carney, P. Goodspeed, and J. H. Fuller.

ANOTHER CEMENT MILL.—Mr. Thomas McAuley is now engaged in puttiag up a mill for crushing cement upon the Green Mountain claim of Sargent & Jacohs, about five miles north of Red Dog. The mill will consist of ten stemps, with hoisting aad pumping works, to be driven hy a hurdy-gurdy weter wheel. The whole will he completed aad running by the 1st of July. This claim is the most aorth-erly of the five or six miles in length of the series of Blue Lead claims passing through You Bet, Red Dog and Gougeye. The famous claim of Neecs & West is at the southern extremity of the series; while that of Sargent & Jacohs' is at the point where this lead has heen traced farthest north. Beyond that point the gravel range is crossed by Deer creek; hut the hed-rock lies so deep that the precise locality of the Blue Leed cannot he readily escerteined. South of Neece & West the leed crosses Steep Hollow creek, to Little York, end thence across Bear river to Dutch Flat, pessing still farther south across the Americen to Forest Hill, etc. The generel raage of gravel is two or three miles ia width; hut ths Blue Lead proper, which occupies the lowest depression in this gravel range, is oaly from 75 to 150 feet in width. The difficulty of finding this nerrow lead is, of course, very great, except where the revines have cat down through the gravel, so as to enahle the prospector to very readily approximate to the lowest point thereof, where he is sure to fiad the object of his search. The gravel from the Blue Lead is generally crushed in stemp mills, while the halance of the deposit is worked hy the hydraulic process.

CABBAGE STICK.—The latest California novelty was exhibited to us this week, hy Mr. A. K. Beaton, in the shape of a headsome ivory-hended cane, the staff of which wes manufactured from a cahhage stelk of 18 months' growth. This welking stick eppeers to he as sonnd and hard as hickory. It is finished simply with a coat of varnish, end would easily he taken for some rare specimen of real wood. While the plant was growing aeer Mr. Benton's mining cahin, et Gold Run, Placer county, he wrought the initials of his name aad date hy cutting slits in the stalk, which now appear like reised letters and figures. The mild California climete permits this plant to grow perpetually from year tu year, and we hear of ea evergreen cehhage shrub in Los Angeles which is now over eight years of age. A lawyer at Mokelumne Hill has a cahhage tree in hie gerden from which he gathers several heads nanuelly.

QUICKSILVER MONOPOLY.—Ia addition to the monopolies which heve long existed in this State, we have now a "quicksilver monopoly," hy which that indispensable article for carrying on our mining operations hes recently been advanced fully tweaty-five per cent. It nppears that e combinetion of capitalists in this city have managed to correl the entire quicksilver interest of the coast, including New Almaden, New Idria, the Cleer Lake and Guadaloupe mines. As soon as this nrrengemeat wes consummated they advanced the rates to seventy-five cents for home consumption, and sixty-five for exportation, which extortionete prices the miners will be compelled to pay so long es the monopoly can be kept up, or until other productive mines can he found.

WELL SUPPLIED—Dodge & Bro's quartz mills, at Bear Valley, Maripose county, have just heen supplied with the ninth conceatrator, nf the Hendy's improved pattern. The Ophir Mining Co. have also placed an additionel concentrator in their mill, near Newcastle, Placer county. There ere now a large number of these conceatrators in operation in various parts of the Stete, which, we are told, are giving universel satisfaction. Mr. Heudy received a patent for his improvement on the 17th of May lest.

ACKNOWLEDGEMENT.—We are under personal ohligations to Dr. R. Cochran, of Downieville, for favors extended this office. We ere assured he is aa iatelligeat enthusiest in scieace.

THE NORTH STAR MINE, GRASS VALLEY.—Negotiations for the sale of this valuable mine have for some time been pending between the owners of the mine and a party of San Francisco capitalists, represented by Wm. H. V. Cronise, Esq. The sum of $400,000 is said to be the amount which is to be paid. It was expected that the negotiation would have been concluded last week; but some misunderstanding having arisen between the parties, with reference to the contract, it was delayed for a few days for adjustment. The matters of difference having been referred to a third party, have been adjusted in a manner satisfactory to all concerned, and the negotiation will probably be completed the coming week. The North Star is one of the oldest as well as one of the most valuable mines in the State, and in the hands of the new company cannot fail to prove a most valuable mine, even at the high figure named.

PERSONAL.—We had the pleasure, a few days since, of receiving a call from Mr. Chas. W. Harker, of Austin, Reese River, who left on the steamer of the 28th, for New York. Mr. H. goes East for the purpose of endeavoring to enlist capitalists in some mines in which he is interested. Mr. H. has some very fine specimens of ore with him, some of which, from the Dacotah mine on Lander Hill, near Austin, showed considerable native silver, a thing very unusual in Reese River ores. He speaks very highly of the future of Reese River; although he fully agrees with some of our correspondents who hold that too much money has been spent there in building mills, and too little in developing the mines. A mill upon an undeveloped mine is of but little value.

A NEW ROCK DRILLING MACHINE.—A new power drill has lately been put in operation in a tunnel which is being driven for the Massachusetts Western Railroad, through the Hoosac Mountain. At a late exhibition of the capacity of this machine, made before some of the members of the Legislature of that state, it appears that with a horizontal machine, at 30 pounds pressure, a hole 1⅜ inches in diameter was drilled 15½ inches in 7½ minutes; on the vertical machine, 15½ inches in 7½ minutes; on the horizontal again, 29½ inches in 12 minutes. The rock used was granite taken from Rollstone Hill in Fitchburg; the drill striking 200 times in a minute, and advancing one inch every eighteen strokes. The bottom of the drill is nearly in form of a letter X. It is said that Rollstone granite is harder than the stone of Hoosac Mountain.

HEAVY BLASTING OPERATIONS.—The heaviest blast ever discharged on the Pacific Coast, was let off in the hydraulic claim of the American Co. on Manzanita Hill, Nevada, a few days since. The Nevada *Gazette*, in speaking of it, says that a tunnel was run into the hill ninety feet, and a cross-cut of sixty feet was run at the end. This cut was closely packed with 510 kegs of powder, each keg having its head taken out. The tunnel was then closely tamped. The entire hill, 150 feet in depth, 200 in width and almost 300 feet back from the front, was lifted several feet in the air and completely broken up, ready for hydraulicing. The cost of running the tunnel, powder, etc. was about $3,000.

MINING MACHINERY.—The United States *Mining Journal* has an article on mining machinery, in which it says:

In regard to mining machinery there are a few things that ought, by this time, to be among the settled convictions in the head of every mining engineer, among which we might mention: First, that a machine which has not had at home the hardest kind of a test of its powers of endurance is not a safe investment to send abroad to mines. Second, a machine that requires to be driven at a very high rate of speed, especially for either crushing or pulverizing ore, is and must be an unenduring and unprofitable machine. It cannot be durable at hard work, and if taken out to mines, will only go to swell the heap of rubbish accumulated there to the dismay and disgust of mining companies. Third, a machine that professes to combine in one series all the processes from the crushing the rock to the washing of the slimes will invariably prove unsatisfactory.

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

THE ALTA ON EARTHQUAKES.—The richest thing of the day, in the scientific line, is the *Alta's* editorial of May 31st. It was suggested by the slight earthquake shock of the day before—or at least brought to a head and made to *erupt*, by that occurrence—although its author takes pains to inform us that his "views" are presented only after "the most mature reflection."

The object of the article is to advance the new and astounding proposition that *we have never had any earthquakes here at all;* but that the tromblings "on this Coast"—to quote his own words—"are nothing but thunder storms raging on the surface of the earth." He says that if the shake of last October had been an earthquake, we ought to find a great *crack* at the jumping-off places—say Humboldt on the north, and Santa Clara on the south; and that, moreover, the cobble-stones and sticks and straws in the street, would have been found, after the shock, arranged in circles!

Shall we comment upon this? Has the mantle of some recently deceased savant fallen upon this sage, impelling him, perforce, to "prophesy;" or was some *other* spirit at work when this article was written? Our readers will recollect the shock occurred between three and four o'clock in the morning. *Brains*, (as well as *chimneys*) are sometimes "twisted round" at that hour!

MINERAL PRODUCT OF NEVADA COUNTY FOR 1866.—A correspondent furnishes the Nevada *Gazette* with the following estimate of the gold product from quartz mines in that county for the present year:

Grass Valley Township	$3,000,000
Nevada Township	1,000,000
Other Localities	500,000
Cement Mining	500,000
Placer Mining	4,000,000
Total	$9,000,000

The *Gazette* appears to think the above estimate is not overstated. The item of cement mining we presume is set down as the product of the cement crushing mills, while the gold taken out of the hydraulic diggings, which accompany the cement, is set down as "placer mining."

EARTHQUAKE.—Quite a severe shock of an earthquake was felt in this city and vicinity, about twenty minutes before 4 o'clock on Monday morning. We notice that the Chamber of Commerce, in the published abstract of the proceedings of their annual meeting, have placed upon record, as a fact, that the severe earthquake of the 8th of October last did not seriously injure any building in this city which was constructed of good materials, with proper foundations.

GOLD YIELD IN AUSTRALIA.—Notwithstanding an extraordinary drought, and consequent scarcity of water for mining purposes, the productiveness of the Australian gold fields does not appear to have been checked. The reports from many of the companies show but little falling off. The Custom House returns of the exports of gold since the beginning of this year, give 1,648,693 ounces. The quantity exported last year was 1,725,000 ounces.

HEUSTON, HASTINGS & Co.—This firm have doubtless greater facilities than any other clothing house on the Pacific coast, and seem determined to place themselves still further in the advance, and surpass all previous efforts to please the fashionable public. They have now in process of manufacture by their New York house, under the direction of Mr. Heuston, probably the largest, finest and most stylish assortment of goods ever ordered for this market. Everything novel, elegant and stylish in their line of trade is promised within thirty days after its first appearance on Broadway. By the next steamer this stock of goods will commence arriving.

ANOTHER IMPROVED CONCENTRATOR.—Mr. M. Hungerford, of the old firm of Hungerford & Prater, has made some material changes in the construction of the Prater Concentrator, which he considers important improvements. His card concerning the same appears in our paper to-day. Mr. Hungerford proposes to have the same machine illustrated as soon as a suitable engraving can be obtained.

NEW PUBLICATIONS.

"LAWS OF THE TERRITORY OF IDAHO, relating to Quartz, containing the Quartz Laws, together with all the amendments passed at the last session of the Legislature, held at Boise City, Idaho Territory." Carefully compiled by F. Kenyon, Territorial Printer. Half octavo: 16 pp.

"ADDRESS DELIVERED BEFORE THE SOCIETY OF CALIFORNIA VOLUNTEERS, at its Annual Celebration, April 25th, 1866: by Wm. Gouverneur Morris, of Napa." Octavo: 34 pp.

"MINER'S COMPANION AND HAND-BOOK: By Jas. Silversmith: Author of the Mineral and Agricultural Wealth and Resources of the Pacific States and Territories," and various other handing works. Printed in New York.

The above have all recently been received from H. H. Bancroft & Co.

ON THE WAYS.—The hulk of the old steamship Republic, which used to run between this port and Panama, a vessel of about nine hundred tons, was put upon the marine railway of John G. North, at the Potrero, several days since, to be fitted up for a store-ship for the Oregon and Mexican Steamship Navigation Company. It will be placed in some port on the Mexican coast. This is the largest-sized vessel ever put upon the ways in this city, such sized craft having been heretofore taken to Mare Island for this purpose.

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Stock Certificates,
Assessment Receipt Books,
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Cards,
Billheads,
And every kind of Job Work that may be desired.
A NEW ARTICLE OF TAGS FOR GROCERS' USE.
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All kinds of Steam, Liquor, Water, Oil, and Flange Cocks and Valves made and repaired.
Hydraulic Pipes and Nozzles, and Hose Couplings and Connections of all sizes and patterns furnished with dispatch. Prices moderate.
22v12-3m JOHN P. GALLAGHER, JOSEPH H. WEED.

Eyes! Eyes!! Eyes!!!

DR HENLY, OCULIST AND AURIST, HAS received from Scotland one of the MOST MIRACULOUS REMEDIES for the benefit of the HUMAN EYE ever before discovered. It is unparalleled in its effects upon the diseases incident to his organ. It gives wonderful power to the optic nerve, and removes all the granulations from the lids, and all mucous film from the sclerotic coat without the use of instruments. In fact, it works like a charm on the Eye, without giving any pain. You feel the effect of the medicine in different parts of the head. It drives the disease back into the system, which is better able to stand it than this tender organ.
Why will you suffer when you can be cured in a few days. Persons who have been blind for ten years have been restored to their sight in a short time by the use of this medicine. I will treat any person's eyes in the State, and if I do not give them relief in a short time, I WILL NOT CHARGE THEM ANYTHING. Office, No. 751 CLAY STREET, opposite the Plaza, San Francisco. 22-v12

VALUABLE MINES!
FOR SALE
IN NEVADA COUNTY.

FOUR VALUABLE QUARTZ MINES, SITUATED AT THE base of Deer Mountain, and about equi-distant from Grass Valley and Nevada City, are now offered for sale. These ledges run parallel with each other, are wide and well defined, varying from fifteen inches to four feet in width, and have been sufficiently developed to prove them to be of great prospective value. One of them is an extension of the famous Star Spangled Banner. A shaft has been sunk on the extension to a depth of thirty feet, where the ledge is fully two feet wide, and prospects quite as well as the Banner did at that depth. On account of water, further progress downward was impossible without machinery. These claims are accessible at all seasons of the year, and wood and water exist in their immediate vicinity in great abundance. Parties who would prefer putting up machinery and staking on one or more of these claims, for an interest in them, can do so, and liberal terms will be granted by the present owners.
Persons desiring to purchase claims, or erect machinery to prospect the same, will find this a capital chance. For further information, reference may be had on application to the Editors and Publishers of the MINING AND SCIENTIFIC PRESS, 505 Clay street, San Francisco. 21v12

Judicious Resolutions.

Several of our most substantial and judiciously managed mining corporations have passed resolutions, since the approval of the new assessment law, requiring all notice of assessments and sales to be published in the MINING AND SCIENTIFIC PRESS, the only thorough (daily or weekly) mining journal on this coast. Our efforts to concentrate all mining advertisements in one paper, for the economical convenience of shareholders and assessment payers, are meeting with decided success. Those who believe in supporting the mining cause, should bear our paper in mind, and bring up this subject at the next trustee or shareholders' meeting.

San Francisco, April 7th, 1866.

NEW MILL.—The Templar Co., No 2, located on Indiana Ranch, Yuba county, started up their new mill on Monday last. The company have 400 tons of rock on the surface, and will soon be able to test the value of their mine.

Capitalists, Attention!
QUARTZ MILL & MINING PROPERTY
FOR SALE
In Nevada County.

A NEW 8-STAMP QUARTZ MILL, 7 LEDGES AND 640 acres heavily timbered Land, near Eureka, Nevada County, are now offered for sale. The Mill is run by steam-power, and is in complete order for business. The ledges, which form the principal value of this property, are all large and well-defined, but require a further outlay of capital, in order to make them remunerative. For the lack of means to properly develop these claims, the present owners are disposed to sell the same for a reasonable price.
Capitalists wishing to engage in mining will find this a splendid opportunity to purchase a property that will bear rigid scrutiny, and offers superior inducements as an investment.
For address and further information, inquire of the Publishers of the MINING AND SCIENTIFIC PRESS, 505 Clay street, San Francisco. 22v12

CAUTION.

LOST—CERTIFICATE No. 23, OF TEN SHARES IN the CAMARGO Gold and Silver Mining Company—Location, Reese River—said Certificate standing in the name of the subscriber. Any person finding the same is hereby cautioned against negotiating said Stock.
W. B. C. HARKER.
San Francisco, May 29th, 1866. 22v12 3

DAVID R. SMITH,
Mining Engineer and Millwright,
Office, 006 Kearny street,
22v12 SAN FRANCISCO, CAL.

Rubber Belting,
WITH COTTON FILLING.

A FULL ASSORTMENT OF 3 AND 4-PLY, NOW IN store and for sale by THOMAS H. SELBY & CO.,
22v12 3m Nos. 110 and 118 California street.

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—FOR—
SAVING GOLD, QUICKSILVER,
—AND—
SULPHURETS.

MORGAN HUNGERFORD HAS MADE IMPORTANT improvements on the original HUNGERFORD & PRATER CONCENTRATOR, whereby the construction of the machine is simplified, and its operations rendered more complete and easy. It is made more effective by being self-discharging, and delivering the sulphurets more free from sand and dirt.
The Machine can be seen in operation at the Miners' Foundry, 21 First street. Call and examine for yourselves before accepting the opinions of persons more or less interested in other machinery.
Hours from 10 to 12 M. and 1 to 3 P. M.
It should be borne in mind that Mr. HUNGERFORD is the original builder and maker of the celebrated PRATER CONCENTRATOR, and his name should be sufficient guarantee to warrant the public in examining his new machine before purchasing elsewhere.
The new Concentrator will soon be illustrated and described in the MINING AND SCIENTIFIC PRESS.
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22v12-tf Miners' Foundry, San Francisco.

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Office, "Beaty House," (directly opposite the Court House,) San Leandro. 19v12-3m

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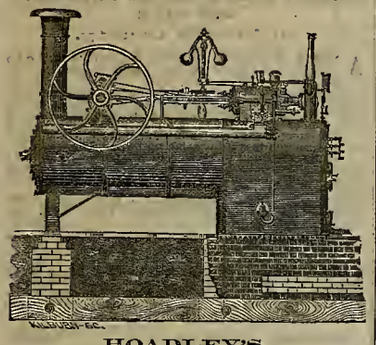

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THREE SIZES,

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COMBINING THE MAXIMUM OF EFFICIENCY, DURability, and Economy, with the Minimum of weight and price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

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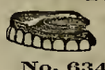

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22q*

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Drawing Classes in the Evening will take place as usual. DRAWINGS FOR PATENTS accurately and neatly done.
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DEWEY & CO., Job Printers,
Office, 505 Clay street.

The cathedral at Milan, which is built of white marble from pavement to spire, was begun in the fourteenth century, and is yet a long way from completion, though a large number of workmen are constantly employed, and has cost up to the present time not far from $175,000,000.

Machinists and Foundries.

SAN FRANCISCO

Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,
Manufacturers of

Marine and Stationary Engines,

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Baux & Guiod's Amalgamator and Separator; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston-Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings at the lowest market rates.

6v11-1y DEVOE, DINSMORE & CO

NEPTUNE IRON WORKS,

Corner of Mission and Fremont Streets,

SAN FRANCISCO.

MARINE,
Locomotive,
And all kinds of
HIGH PRESSURE
Steam Boilers
MADE.

All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.

All kinds of Sheet Iron and Water Pipe, Coal Oil Stills, Wrought Iron Worms, etc., etc. Manufactured to Order.

Old Boilers Repaired

6v12-1y D. CAMERON.

GEORGE T. PRACY,
MACHINE WORKS,

Nos 109 and 111 Fremont street, near corner of Mission,

OPPOSITE MECHANICS' MILL,

SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL,
And Quartz Machinery, Printing Presses,

—AND—

MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

☞Special attention paid to Repairing.☜ qy-3

JAMES MACKEN,
COPPERSMITH,

No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to. 13v11

FAIRBANK'S

HAY,
COAL,
CATTLE,
MINERS', AND
GROCERS'
Scales.

We would call the attention of Miners to our large scales for WEIGHING LOADED WAGONS, of from 10,000 to 20,000 lbs capacity.

Manufacturers' Branch House,
FAIRBANKS & HUTCHINSON,
19v12-3m 334 Montgomery street.

Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK, EMBRACING all Modern Improvements, suitable for Mining, Milling, or other purposes. Will be sold at Manufacturers' rates and charges.

Apply to A. E. CRANE,
16v12-3m 310 Washington Street, up stairs.

LEWIS COFFEY. J. S. RISDON

LEWIS COFFEY & RISDON,

Steam Boiler & Sheet Iron Works.

THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.

Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

Postage.—The postage on the MINING AND SCIENTIFIC PRESS to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents.

THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Oreene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

REMINGTONS'
ARMY AND NAVY REVOLVER,

THE REMINGTON REVOLVER

Has been approved by the United States Board of Ordnance, and has so satisfactorily met the requirements of the Government, not only in the field, but in the official tests and examinations made by prominent officers of the Ordnance Department, that it stands at once the most popular, serviceable and approved arm of the kind in use. Upwards of 125,000 have been supplied to the Government within the past four years, for the land and naval service, furnishing ample evidence of the estimation in which the arms are held.

Simple and symmetrical in its entire construction, securely strong, of most modern improvement in mechanism and material; its unequaled range and penetration, together with its durability, are points in its favor now well known, and which challenge a comparison with any other pistol of the kind made in this country or in Europe.

The superior strength and capacity of the arm for constant and long use is apparent from the fact that the entire frame is constructed of a single piece of metal, thus preventing the extension of some portions of the frame, from the effect of firing—a serious defect in many pistols—in which the frame is composed of two or more parts.

The frame of the Remington Revolver furnishing a top strap or support above the cylinder, served to protect the base pin (on which the cylinder revolves) from any undue strain to which it would otherwise be subjected, and which would immediately render the live of fire from the cylinder to the barrel imperfect, thus destroying force and accuracy.

Another advantageous feature of the arm is the means afforded for the instantaneous removal of the cylinder from the frame. This not only facilitates the cleaning of the pistol, but by the quick adjustment of the cylinder, one pistol can be made as effectual as two—and, considering the difference of weight, it is far preferable—by simply possessing a spare cylinder loaded and capped to instantly replace the exhausted one.

The above is a general summary of the points of peculiar merit in the Remington Revolver which a trial of the arm is only needed to attest. For sale at Manufacturers' rates, by

ALBERT E. CRANE, Manufacturers' Agent,
16v12 310 Washington Street, up stairs.

Vulcan Iron Works Company

[ESTABLISHED 1850.]

First, Natoma and Fremont Streets.

IRON FOUNDERS,
Steam Engine and Locomotive
BUILDERS,

Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery, Locomotives, Car Trucks, Car Wheels, Hoistings and Irons; and Flouring Mills, Quartz Mills, Sugar Mills, Saw Mills,

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

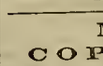
HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR;
BEATH'S AMALGAMATOR;
HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;
BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;
PAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;
JONVAL'S IMPROVED WATER WHEEL;
LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

M. REYNOLDS,
COPPERSMITH
—AND—
SHEET IRON WORKER,

Market street, near Front, San Francisco.



ALL KINDS OF COOKING UTENSILS tinned and made to order. 16v12-3m

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H. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!

Corner First and Mission streets,

SAN FRANCISCO.

ESTABLISHED IN 1849.

HAVING INCREASED OUR FACILITIES IN EVERY Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's improved Tractory Curve Pan, Zenas Wheeler's improved flat bottom pan, Beldin's pan, Veatch's tubs, Frater's concentrators, Wahlee's pans, Beers' pan, German Barrels, Arastra Gearing, Chilie Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.

We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron.

All work done in the best manner at the lowest cash prices.

21v10 H. J. BOOTH & CO.

BY MAIL.—The MINING AND SCIENTIFIC PRESS will be sent by mail to any part of the civilized world. In case of removal, subscribers have only to inform us of the post-office address of their old and new location, and the paper will be sent accordingly.

PALMER, KNOX & CO.,

Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,

SAN FRANCISCO.

MANUFACTURE ALL KINDS OF

MACHINERY,

STEAM ENGINES AND QUARTZ MILLS

DUNBAR'S IMPROVED

Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S

NEW GRINDER AND AMALGAMATOR

HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

FULTON
Foundry and Iron Works.

HINCKLEY & CO.,

MANUFACTURERS OF

STEAM ENGINES,

Quartz, Flour and Saw Mills,

Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

Miners' Foundry

—AND—

MACHINE WORKS,

First St., between Howard and Folsom Streets,

SAN FRANCISCO.

EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,

Machinery, Mining Pumps, Amalgamators,

Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KING

Pioneer Iron Works.

KITTREDGE & LEAVITT,

MANUFACTURERS OF

FIRE-PROOF DOORS AND SHUTTERS

Steel Lined Bank Vaults and Safes, PRISON CELLS, BALCONIES, AWNINGS, Grating and Iron Fences, Stairs, Etc.

ALSO, AGENTS FOR

BUSSEY'S NEWLY PATENT COMBINATION

BURGLAR-PROOF LOCK,

☞ No KEY, or visible signs of OPENING, ☜

Corner of Battery and Jackson streets,

San Francisco.

Constantly on hand a large assortment of Second-Hand Fire-Proof Doors and Shutters. 18v12

UNION IRON WORKS,
Sacramento.

WILLIAMS, HEILBRON & CO.,

MANUFACTURERS OF

STEAM ENGINES, BOILERS,

And all kinds of Mining Machinery.

Also, Hay and Wine Presses made and repaired with neatness, durability and dispatch.

Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

Front Street, between N and O streets,

14v11 SACRAMENTO CITY

JOHN LOCHHEAD'S

STEAM ENGINE WORKS,

Beale Street, near Mission Street,

SAN FRANCISCO.

Steam Engines of every description built to order—Marine Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc

25v9q JOHN LOCHHEAD, Practical Engineer

Occidental Homestead ASSOCIATION,

Office, 305 Montgomery street, San Francisco.

Capital Stock : : : : : : : $33,600

102 Shares, $33 Each.

THIS ASSOCIATION was formed to enable its members to obtain desirable homestead lots in this city, at a cheap and easy rate, paying for the same by regular monthly installments. For this purpose they have purchased blocks 499, 500, and 601 in the Western Addition to this city, bounded by Davisadero, Pine, Broderick and Clay streets. Subscribers will pay an initiation fee of $5 on each share taken, to form a fund for defraying current expenses, and $11 per month for thirty months, commencing in April, 1866. The property is within three blocks of the Turk Street Railroad, is nearly all on the grade, and is most desirably located for homestead purposes. It is directly east from the lands of the California Homestead Association. The property has been purchased on very reasonable terms, and offers a rare opportunity for investment. A number of fine houses are in process of erection, and streets are being graded near this property, which will greatly increase its value.

When twelve monthly payments have been made, the property will be divided among the members in the usual manner, and each shareholder will receive a contract for a deed to the lot or lots to which he may be entitled, and have the privilege of taking immediate possession of the same. The lots average 27 feet in front by 120 feet in depth. The whole amount due upon any lot may be paid at any time, and discount at the rate of 1½ per cent. per month will be deducted therefrom. Persons wishing to visit the lands of this Association will take the Turk street cars to Devisadero street, and thence go northerly along Devisadero to Pine street.

$20,000 of the capital stock is taken, and the books are open for subscription to the balance, at the office of the Secretary, where the Official Map of the Association can be seen, and all particulars obtained.

The Title to this property is perfect.

J. S. LUTY, Secretary.

Office 305 Montgomery street, corner of Pine, Rooms 2 and 6. 20v12-tf

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLATure of the State of California, entitled "An Act concerning Corporations," passed April 24, 1853, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire.....$12,973,949
Marine..... 434,408

This Company commenced underwriting Marine Risks, August 1, 1865.

V.—This Company insures against the following risks, viz: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheesman,	Chas. Mayne,
Abm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Anson G Siles,	John B. Newton,	T. L. Barker,
John O. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.

4v12-3m

STANFORD BROTHERS,
REFINERS AND PACKERS
—OF—
COMET OIL!
—FROM—
CALIFORNIA PETROLEUM.

WE WARRANT THIS OIL TO BE SUPERIOR TO ANY Eastern Oil, and any purchaser finding it to be not as represented, can return the same at our expense, and the purchase money will be refunded, together with all charges.

STANFORD BROS.,
21v12-3m 123 California street.

To Mining Companies!

WANTED—A SITUATION, IN THE EMPLOY OF SOME Mining Company, by a young man, a graduate of the Clausthal School of Mines, and who has had had experience in the mines of Nevada. Address,
20v12-4t RIEHN, HEMME, & CO., Assayers, S. F.

City College Laboratories,
Southeast Cor. Stockton and Geary sts.

Practical and Analytical Chemistry and Metallurgy.

THOMAS PRICE,
Professor of Chemistry,
(Formerly of the Normal College, Swansea,)

WILL GIVE PRACTICAL INSTRUCTIONS IN QUALItative and Quantitative Analysis and Assaying. The course qualifies students for the application of Chemistry to METALLURGY, MANUFACTORING ARTS, and MINING PURPOSES.

PHARMACEUTICAL and TECHNICAL CHEMISTRY, such as is required by Medical and Pharmaceutical Students, will be taught to such students as may require it.

Course of General Chemistry.

Evening Lectures will be delivered every Tuesday, at half-past seven o'clock, P. M., in the Philosophical Hall of the College, without extra charge to the students in the Institution.

On and after the 14th of February, the Laboratories will be open every day, except Sundays, from 8 A. M. to 5 P. M. For further particulars, address

REV. P. V. VEEDER,
Principal of the City College.
6v12tf Or at 406 California Street.

SACRAMENTO SEMINARY.
BOARDING SCHOOL
FOR YOUNG LADIES,
Tenth Street, between F and G.
SACRAMENTO, CAL.
Session commenced January 8, 1866.
MR. AND MRS. HERMON PERRY,
7v12tf Principals.

SANTA CLARA COLLEGE, S. J.,
SANTA CLARA, CAL.
Conducted by the Fathers of the Society of Jesus.

The FIFTEENTH ANNUAL SESSION of this College will commence on

Monday, August 28th, 1865.

TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months.....$350

For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.
3v11 REV. A. MASNATA, S. J., President.

Commercial Academy for Ladies & Gentlemen.

NO. 111 K STREET, SACRAMENTO, CALIFORNIA. Established in 1863, where students can acquire a thorough business education. Double Entry Book Keeping, Practical and Ornamental Penmanship and Drawing, Latin, French, the Common and Higher English Branches, taught on reasonable terms. Students from any part of the State can procure board and lodging in private families, near the Academy, at from $4 to $6 per week. For terms, address, MART TAYLOR, Principal; Miss SARAH J. WEIR, Associate Principal. 20v12

Pacific Mail Steamship Co's
THROUGH LINE TO NEW YORK,
Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

On the 10th, 18th and 30th of each month that has 30 days.
On the 10th, 19th and 30th of each month that has 31 days.

When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceding; when the 18th falls on Sunday, they will leave on Monday following.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departures of 18th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

June 9th—GOLDEN AGE.....Capt. E S. Farnsworth, Connecting with Costa Rica, Capt. Bradbury.
June 18th—CONSTITOTION.....Capt. F. R. Baby, Connecting with NEW YORK, Capt. Gray.
June 30th—GOLDEN CITY.....Capt. Jas. T. Watkins. Connecting with ARIZONA, Capt. Maury.

Cabin passengers berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.

OLIVER ELDRIDGE, Agent.

California Steam Navigation COMPANY.

Steamer	CAPITAL.....CAPT. E. A. POOLE.
"	CHRYSOPOLIS....CAPT. A. FOSTER.
"	YOSEMITE..... — —
"	CORNELIA.....CAPT. W. BROMLEY.
"	JULIA.....CAPT. E. CONCKLIN.

One of the above steamers leave BROADWAY WHARF, at 4 o'clock P. M. EVERY DAY (Sundays excepted), for Sacramento and Stockton, connecting with light-draft steamers for Marysville, Colusa, Chico, and Red Bluff.

Steamships AJAX, PACIFIC, ORIZABA, CALIFORNIA, ACTIVE and SENATOR, leave, as advertised, for Honolulu, Portland, Oregon, New Westminster, British Columbia, Victoria, V. I., Santa Barbara, San Pedro, and San Diego.

Office of the Company, northeast corner of Front and Jackson streets.

B. M. HARTSHORNE,
13v12 President.

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,
No. 602 Montgomery street, San Francisco,
EXCLUSIVE AGENT
— FOR THE —
AMERICAN
WATCH FACTORY.

A large assortment of these
Superior Watches,
In Gold and Silver Cases,
Constantly on hand, and sold at Factory prices. Also,
ENGLISH AND SWISS WATCHES,
Imported directly from the Manufacturers.
The American Company are now making
VERY FINE WATCHES FOR LADIES.
☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

New Mining Advertisements.

Continued Mining Advertisements will be found on another page.

Arbitrios Mining Company, Batopilas District State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of May, 1866, an assessment (No. 10) of one dollar and fifty cents ($1.50) per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 811 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 12th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 13th day of August, 1866, to pay the delinquent assessment thereon, together with costs of advertising and expenses af sale. By order of the Board of Trustees.

A. MARTINON, Secretary.
Office, 811 Montgomery street, San Francisco, Cal.

N. B.—Until further notice, all advertisements of this Company will appear in the MINING AND SCIENTIFIC PRESS. je2

Cosala Silver Mining Company, Cosala District, State of Sinaloa, Mexico.

Notice is hereby given that at a meeting of the Trustees of said Company, held on the 26th day of May, 1866, an assessment of one (1) dollar per share was levied upon the assessable capital stock of said Company, payable immediately in gold coin of the United States, to CHARLES BAUM, Secretary, at the office of this Company, No. 510 Battery street, opposite the Custom House, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 17th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

CHAS. BAUM, Secretary.
Office, No. 510 Battery street, opposite the Custom House, San Francisco. jul

Hanscom Copper Mining Company.—Location: Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 29th day of May, 1865, an assessment of thirty (30) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, S. S. SWEET, No. 609 Market street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 29th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.
Office, No. 609 Market street, San Francisco, Cal. je2

Nuestra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, (in the Drug store, near Dupont,) or to the Treasurer, A. HIMMELMANN, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 2d day of June, 1866, and unless payment shall be made before, will be sold on the 20th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.
Office, 210 Post street, (Drug store, near Dupont street,) San Francisco, Cal. ap23

POSTPONEMENT.—Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of June, 1866, it was resolved to postpone the publication of the Delinquent Stock till SATURDAY, the 30th day of June, 1866.

E. J. PFEIFFER, Secretary.
Office, 210 Post street, (Drug Store near Dupont street,) San Francisco, Cal. je2

Office of Simpson Mining and Milling Company, San Francisco, California, June 1st, 1866.

NOTICE.—The annual meeting of the Simpson Mining and Milling Company, will be held on the second THURSDAY of June, 1866, at their office, southwest corner of Front and Jackson streets, San Francisco, at 12 o'clock, M., for the choice of five Trustees for the ensuing year, and for any other business proper to be transacted at that time.

je2 T. B. BIGELOW, Secretary.

Sierra Valley Gold and Silver Mining Company, Plumas County, California.

NOTICE.—There are delinquent upon the following described stock, the several amounts hereafter set opposite the names of the respective shareholders, on account of assessment of one (1) dollar per share levied on the 26th day of April, 1865, as follows:

Names.	No. Certificate.	No. Shares.	Amount
Ansous, V	151	5	$5 00
Ansous, V	168	10	10 00
Domeniconi, A	162	10	10 00
Martinoni, P	5	10	10 00
Martiaoni, P	7	10	10 00
Martiaoai, P	8	10	10 00
Martinoni, P	9	10	10 00
Martinoni, P	10	10	10 00
Martinoni, P	99	25	25 00
Martinoni, P	100	5	5 00
Millin, J M	102	5	5 00
Requa, J L	159	10	10 00
Requa, J L	160	10	10 00
Requa, J L	161	5	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 26th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Salesroom of Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, on the 18th day of June, 1866, at the hour of 12 o'clock, M., of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. NOEL, Secretary,
Office, 607 Washington street, San Francisco, Cal. je2

Mining Notices--Continued.

New Mining Advertisements to be found under another heading.

Boston Copper Mining Company, Ohio Mining District, El Dorado County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 22d day of May, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 626 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 22d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction and unless payment shall be made before, will be sold on Wednesday, the 18th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board af Trustees.

J. C. HUTCHINSON, Secretary,
Office, 626 Montgomery street, San Francisco, Cal. my26

Crockett Consolidated Mining Company.—Location of Works: District and County of Esmeralda Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable May 25th, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 10 Exchange Building, corner Washington and Montgomery streets, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 10th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOHN M. BURNETT, Secretary.
Office, No. 10 Exchange Buildings, San Francisco, California. my26

Capitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 30th day of April, 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, or to E. H. SWARTHOUT, Treasurer, San Jose, California.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, will be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

D. R. BECKFORD, Secretary.
Office, 731 Clay street, San Francisco, Cal. my5

Dios Padre Gold and Silver Mining Company, Alamos, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of April, 1866, an assessment of three dollars per share was levied upon the capital stock of said Company, payable on the 29th day of April, 1866, in United States gold coin, to the Secretary, E. C. MCCOMB, No. 1 Government House, corner Sansome and Washington streets, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 5th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Saturday, the 23d day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

E. C. MCCOMB, Secretary,
Office, No. 1 Government House, corner Sansome and Washington streets, San Francisco, Cal. my5

Evoca Consolidated Copper Mining Company, Location of Works: Court Hill District, near Black's Ferry, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May, 1866, an assessment of twenty-five cents per share was levied upon the assessable capital stock of said company, payable May 12th, 1866, in United States gold and silver coin, to the Secretary, C. E. ABBOT, or to A. E. THAYER, at the office of the Company, at No. 532 Merchant street, room No. 3, in the city and county of San Francisco, State of California.

Any stock upon which said assessment shall remain unpaid on the 6th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. E. ABBOT, Secretary.
Office, No. 532 Merchant street, room No. 3, San Francisco, California. my5

Eagle Quartz Mining Company.—Location of Works: Amador County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 15th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 10 Exchange Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 16th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Friday, the 6th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOHN M. BURNETT, Secretary.

Office, No 10 Exchange Building, San Francisco. my19

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County Cal.—Assessment No. 11.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company only.

Any stock upon which said assessment shall remain unpaid on the 12th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 29th day of May, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. ap14

POSTPONEMENT.—The advertisement of stock delinquent on the above assessment, is hereby postponed until Saturday, June 9th, 1866, and the sale thereof until Tuesday, June 26th, 1866. By order of the Board of Trustees.

ap28 W. D. ROOT, Secretary.

Green Gold and Silver Mining Company. Location of Works and Mine: Gold Hill District, Storey County, Nevada.

NOTICE.—The Annual Meeting of the Stockholders of the above Company, for the election of Trustees, etc., will be held on WEDNESDAY, the 6th day of June, 1866, at 12 o'clock M., at the office of the Company, No. 600 Montgomery street, San Francisco. Proxies to be filed with the Secretary. JOHN HENDERSON, President.

R. H. SMITH, Secretary. my5

Great Basin Mining Company.—Location of Works: Humboldt County, Nevada. Office, southeast corner of Pine and Montgomery streets, San Francisco, California.

Notice is hereby given, that at a meeting of the Trustees of said Company, held May 2d, 1866, an assessment of nine cents was levied upon each and very share of the capital stock of the said company, payable immediately, in United States gold coin, to the Secretary, at his office, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale, at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of dvertising and expenses of the sale. By order of the Board of Trustees.

S. T. KINO, Secretary *pro tem.*,

Office, S. E. corner Pine and Montgomery streets, San Francisco. my5-5w

Gold Hill Tunneling Gold and Silver Mining Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May, 1866, an assessment (No. 7) of one dollar per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, R. WEGENER, 415 Montgomery street, San Francisco, California, or to the Superintendent, Mr. F. CHAPPELLET, Gold Hill, Nevada,

Any stock upon which said assessment shall remain unpaid on the 15th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 10th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal.

A discount of three (3) per cent. will be allowed on all payments made on the above assessment on or before Monday, the 21st day of May, 1866. By order of the Board of Trustees.

my12 R. WEGENER, Secretary.

I. X. L. Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 5th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Wm West	130	7½	$11 75
George Morehouse	143	10	15 00
Osmond Johnson	190	2	3 00
Ole Halvorson	192	5	7 50
A Wagner	207	5	7 50
Chas Saunders	224	5	7 50
H G Blaisdell	236	10	15 50
H G Blaisdell	237	10	15 00

And in accordance with law and an order of the Board of Trustees, made on the 5th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, No. 338 Montgomery street, on the 7th day of June, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary.

Office, 338 Montgomery street, San Francisco, Cal. my19

Economy in Advertising.—The MINING AND SCIENTIFIC PRESS is the best and most ECONOMICAL mining advertising medium in this city. Our terms are less than ONE HALF the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The PRESS contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 17th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
O B Turrell	70	30	$ 3 00
F Loehr	278	200	20 00
F Loehr	279	50	5 00
F Loehr	297	120	12 00
F Loehr	330	30	3 00
F Loehr	347	90	9 00
F Loehr	350	20	2 00
F Loehr	374	45	4 50
F Loehr	397	70	7 00
F Loehr	405	100	110 00
F Loehr	431	15	1 50
F Loehr	475	75	7 50
F Loehr	495	150	15 00
F Loehr	508	50	5 00
F Loehr	513	241	24 10
F Loehr	514	155	15 50
F Loehr	527	163	16 30
Chas W Cordray	554	25	2 50
Chas W Cordray	555	25	2 50
Geo Cofrau	135	25	2 50
Geo Cofran	137	50	5 00
Geo Cofrau	not issued	95	9 50
Mrs J C Turrell	151	20	10 00
J S Hilloon	202	100	10 00
Mary Brooks	310	20	2 00
Ruth Taylor	311	10	1 00
D O Leary	308	20	2 00
Warren Brown	340	25	2 50
R H Derricksou	393	25	2 50
Geo T Sharp	425	200	20 00
W W Theobalds	9	100	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 17th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 11th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. B. WINEGAR, Secretary.

Office, 308 Front street, San Francisco. my20

Leland Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin to the Secretary, at his office in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal my19

Lady of the Lake Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin, to the Secretary, at his office in San Francisco., Cal.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery Street, San Francisco, Cal. my19

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May 1866, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary, C. HEYWOOD, 311 Market street, San Francisco, or to O. W. RUSSELL, Crescent City.

Any stock upon which said assessment shall remain unpaid on the 9th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 28th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. HEYWOOD. Secretary.

Office, 311 Market street, San Francisco, Cal. my5

Lady Franklin Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 31st day of March, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Estate of John J Williams	2	7½	$1 87
James Gallagher	45	5	1 25
James Gallaghor	46	5	1 25
Mrs A M Harris	73	5	1 25
Mrs A M Harris	74	5	1 25
Estate of Henry Mercer	123	5	1 25
Geo Lorenz	163	5	1 25
Geo Day	171	5	1 25
A H Powers	174	10	2 50
Charles Luciene	229	2½	62
John W Armstrong	213	5	1 25
T M Post	219	10	2 50
A M & O T Harris	220	7½	1 87
Wm Gallagher	233	10	2 50
Daniel Davidson	244	5	1 25

And in accordance with law, and an order of the Board of Trustees, made on the 31st day of March, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Secretary, No. 305 Montgomery street, San Francisco, on the 5th day of June, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. S. LUTY, Secretary.

Office, 305 Montgomery street, corner of Pine, San Francisco. my19

Mina Rica de las Flores Mining and Mill Company, Camp Flores, near West Point, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the eighth day of May, 1866, an assessment (No. 12) of one dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, S. DICKINSON, at the office of the Company, No. 423 Washington street, Room No. 13, up stairs, San Francisco, between the hours of 10 A. M. and 1 P. M.

Any stock upon which said assessment shall remain unpaid on the nineteenth day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the sixteenth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. DICKINSON, Secretary.

Office, 423 Washington street, San Francisco, Cal.

San Francisco, May 9, 1866. my12-6w

North American Tin Mining Company. Location of Works: Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, A. D. 1866, an assessment of forty cents per share was levied upon the capital stock of said Company, payable in gold coin of the United States, immediately, to the Secretary, at his office, at 535 Clay street, in the city of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 22 day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. N. THORNE, Secretary.

Office, Room No. 7, at 535 Clay street, San Francisco, California. my26

North Star Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

NOTICE.—There are delinquent, upon the following described stock, on account of assessment levied on the 9th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
John W Harker	350	6	$150 00
John W Harker	456	6½	162 50
G F Sharp	447	2	50 00
Mary F Breizo	243	4½	112 50
E B Goddard	251	9¼	231 25
J P Sharpstein	441	15	375 00

And in accordance with law, and an order of the Board of Trustees, made on the 9th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on Wednesday, the 6th day of June, 1866, at the hour of 2 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

GOTTLIEB BEER, Secretary.

Office, 226 Front street, San Francisco. my12

Ophir of the Colorado Silver Mining Company, El Dorado Canon, Colorado District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of May, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, T. A. MUDGE, 523 Clay street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 25th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. A. MUDGE, Secretary.

Office, 523 Clay street, San Francisco. my26

Old Colony Quartz Mining Company.—Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of May, 1866, an assessment of three (3) dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, No. 523 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. O. HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco. my19

Office Providence Gold and Silver Mining Company.

NOTICE.—The annual meeting of the Stockholders of the above Company, for the purpose of electing Trustees, and transacting other necessary business, will be held at the Office of the Company, No. 10 Government House, San Francisco, on the 20th day of JUNE, 1866, at 2 o'clock P. M. of that day.

F. T. FOLSOM, President.

J. M. BUFFINGTON, Secretary.

San Francisco, May 19th, 1866. my19

Rippon Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 6th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the company, 338 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JAMES C. DAYLEY, Secretary,

Office, 338 Montgomery street, San Francisco, Cal. my12

Simpson & Bonello Mining Company.—Mines located in Carson Valley.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of April, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable on the 30th day of April, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, Room No. 5, Lucas Turner & Co's Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 25th day of May, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 14th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. L. BIBBINS, Secretary.

Office, 305 Montgomery street, San Francisco, Cal. ap28

POSTPONEMENT.—The day for deeming stock delinquent on the above assessment is hereby postponed until the 9th day of June, 1866, and the sale thereof until the 29th day of June, 1866. By order of the Board of Trustees.

my26 T. L. BIBBINS, Secretary.

Sapphire Quartz Mill and Mining Company. Location: Gold Hill, Storey County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of May, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, Room No. 5, Lucas Turner & Co's Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 28th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 17th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. KOENIG, Secretary.

Office, Lucas Turner & Co's Building, N. E. corner of Jackson and Montgomery streets, San Francisco, Cal. my26

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

United States Mining Company, Virginia District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 19th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm Green	326	10	$10 00
Sarah Torrens	317	10	10 00
Horace Porter	323	250	250 00
C E Weber	319	50	50 00
Geo Torrens	316	10	10 00
Wm Van Housen	390	10	10 00
B C Brown	416	50	50 00
W P Davidson	423	50	50 00
John Prince	307	50	50 00
A A Smith	454, 555 25-ea	50	50 00
Elisha Eldrid	373, 374 20-ea	40	40 00
Elisha Eldrid	375	12	12 00
Lucy T Duval		15	15 00
David S Turner	362, 363, 364		
	365 25-ea	100	100 00

And in accordance with law, and an order of the Board of Trustees, made on the 19th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, California, on Wednesday, the 13th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House. my20

Whitman Gold and Silver Mining Company. Location of Works: Indian Springs District, Lyon County, Nevada.

Notice is hereby given that the Annual Meeting of the Shareholders of the Whitman Gold and Silver Mining Company, for the election of Trustees and the transaction of such other business as may be presented, will be held at the office of the President of the Company, CHARLES MAYNE, Esq., No. 535 Clay street, San Francisco, on TUESDAY, the 5th day of June, 1866, at the hour of 3 P. M.

Per order

THOS. W. COLBURN,

Secretary Whitman G. & S. M. Co.

San Francisco, Cal., May 12th, 1866. my12 4t

Yankee Blade Mining Company, Reese River Mining District, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 329 Montgomery street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the ninth (9) day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. T. ATWOOD, Secretary.

Office, No. 329 Montgomery street, San Francisco. my19

Delays are Dangerous.—Inventors on the Pacific Coast should bear in mind that by patronizing our Patent Agency they can sign all necessary papers for securing patents almost immediately, thereby avoiding the three month's delay requisite in transacting business through Eastern agencies.

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 118 and 132.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan one hundred and eighteen tons, and the Conical Pan one hundred and thirty-two tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

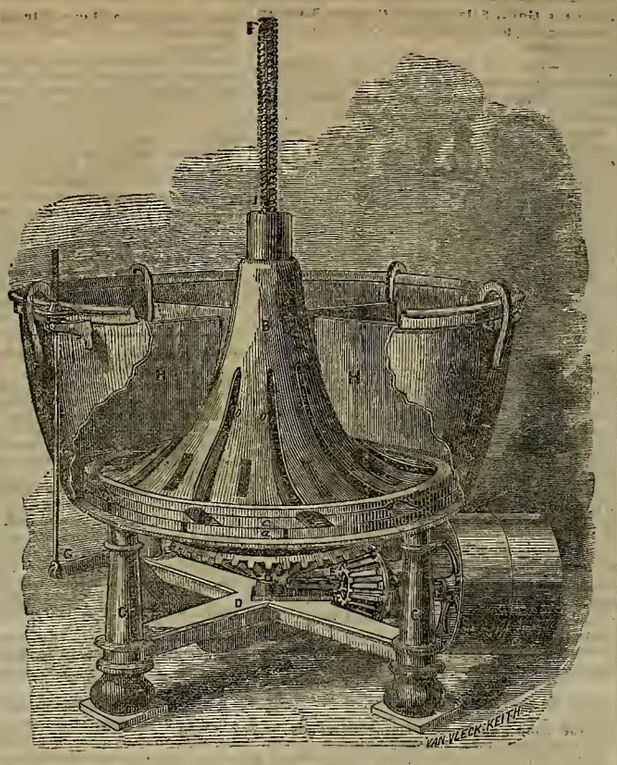
As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.



Machinery.

SAVE YOUR MONEY AND BUY,

For $100!

HUNTER'S

Premium Concentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

THE ABOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 135 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent. more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 118 Washington street, below Davis, where ALBERT JACOBS will fill their orders promptly.

ANDREW HUNTER,
17v12-tf Inventor.

TO PLACER MINERS AND OTHERS.

BREARS'

Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 320 Pine street.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee or the owners of the Miners' Foundry, where the Pumps are on exhibition and for sale, 245 First street, San Francisco.

LIST OF PRICES:

LITTLE GIANT.		BENT TUBE.	
Brass	$65	Iron, 4 in. di.	$100
Iron	50	" 3 in. di.	75
		" 2 in. di.	50
		" 1½ in. di.	35
		Brass, 1 in. di.	25

13-v12.

Pacific Forge Company.

FORGING AND IRON WORK.

THE PACIFIC FORGE COMPANY HAVE JUST ERECTed, in this city, on Fourteenth street, near the machine shop of the San Jose Railroad, a large establishment for the purpose of forging and working in wrought iron. Our hammer is the largest upon this coast, and we are prepared to manufacture, at short notice, all kinds of heavy forgings, car axles, shafts, steamboat cranks, piston-rods, wagon axles, and other similar work. This is the first general shop of the kind erected in this State, and we solicit the patronage of the public. All orders executed at reasonable rates, and with promptness and satisfaction. 19v12-3m

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

LEFFEL'S

American Double Turbine

THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction wherever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall. Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

KNAPP & GRANT,
—ALSO— San Francisco.

Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by KNAPP & GRANT,
12v12-3m San Francisco.

BLAKE'S

QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,
BLAKE & TYLER,
Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Cotton-Filled Gum Belting,

3, 4, and 5-Ply,

FROM 4 TO 22-INCH,

IN LIBERAL SUPPLY.

FOR SALE BY

GILLIG, MOTT & CO.,

Corner C and Taylor streets,

VIRGINIA, NEVADA,

—AND—

Nos. 148 AND 150 J STREET,

19v12 tf SACRAMENTO, CALIFORNIA.

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self-acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,
Virginia City, Nevada,
15v11tf Through Wells, Fargo & Co's Express.

BRUCKNER'S

Mechanical Roasting Furnace

AWARDED A

PREMIUM SILVER MEDAL

—BY THE—

The Mechanics' Institute.

THESE FURNACES ARE NOW MANUFACTURED after an improved mode of construction, which

GREATLY SIMPLIFIES THEIR OPERATION,

and afford a much larger oxydizing surface to the action of heat and atmosphere.

The weight of a Furnace nine feet long by four feet in diameter does not exceed one ton.

THE IMPROVED FURNACE

will soon be more fully described and illustrated in the columns of the MINING AND SCIENTIFIC PRESS.

Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
19v12 416 Market street, San Francisco.

To Ditchmen, Millmen and Others Requiring

IRON PIPE.

M. R. ROSE, CORNER OF 9TH AND K STREETS, Sacramento City, has facilities unsurpassed on this coast for the manufacture of IRON PIPE of every description. He also has on hand a deep well FORCE PUMP, of his own invention and manufacture, well adapted for oil wells. His tools being portable, pipe can be manufactured on the ground. 19v12

CAPILLARY ATTRACTION.

INTERESTING EXPERIMENT.—To one who has never tried the experiment, it is quite astonishing to observe the large bulk which can be pieced in a glass goblet, already full to the brim with water; with a steady hand and the glass and water in a highly favorable condition, as many as fifteen or even twenty quarter of dollar pieces can be placed in an ordinary-sized goblet filled with water.

In performing this experiment, first procure a goblet, wipe it perfectly dry, inside and out, especially around the rim; pour the water gently into the same, until it is full even with the rim. Then drop the quarters in gently, one by one, holding them carefully about halfway down into the water before letting them drop. Be careful not to wet the edges of the glass. Cool spring water, direct from a spring or from the hydrant, should be used.

On completing the experiment you will be surprised to see how much of bulk you can thus place in the water; and how very much the water stands above the level of the brim. You will, in fact, have heaped the water up without causing it to flow over. If you have to repeat the experiment wipe the glass perfectly dry each time.

The philosophy of this experiment consists in the fact that the "cohesive attraction" of the water, tending to keep it together in a body, is greater than the effect of the "attraction of gravity," which is striving to pull the water over the sides of the goblet.

CAPILLARY ATTRACTION.—There is another class of experiments nearly allied to the above, explanatory of "capillary attraction." By close attention you will observe that as you pour the water slowly into the glass, its surface will not be exactly level; but slightly *concave* or cupped, at the edges, where it comes in contact with the glass. This concavity is caused by the attractive force of the glass upon the water, drawing up the water all around its edge a little higher than the center. The smaller the diameter of the glass, the more observable will this phenomenon become. When a very narrow tube is used, and the action is examined with a magnifying glass, the effect is most remarkable. Such experiments can only be performed by dipping the lower portion of the tube or tubes into the water, when the water rises around the sides of the tube precisely as it does when water is poured into a larger one.

When the tube is no larger than a *hair*, and a number of them are used together, the attraction of gravitation is entirely overcome, and a dish of water may be completely emptied of its contents, by having the series of tubes bent over the side so as to carry off the water, or high enough to take it all up and hold it there. For example, take a short piece of rattan or cane, which is nothing more than an assemblage of very small tubes, the whole enclosed by a close covering or skin. If a piece of cane, say an inch long, is held with one end on the surface of the water, the liquid will be found to run through the tubes to the top of the bundle of tubes. This is called "capillary attraction," from the Latin word *capillus*, a hair. The water is thus drawn up on precisely the same principle as that which causes it to stand a little higher around the edges of the glass in the first experiments of filling the goblet with water.

Capillary attraction is not confined altogether to straight or slightly bent tubes. When you place a sponge upon the surface of water, especially if it be slightly damp already, it will speedily be filled with the liquid. The sponge is thus filled by capillary attraction. If a small bundle of clean cotton lampwick be hung over the edge of a glass of water, the water will all be drawn out of the glass; and a very curious circumstance connected with this, is the fact that if the water be muddy, it will come over perfectly pure or very nearly so. This is a very ancient method of filtration.

If the water be saturated with salt or sugar, the water will come over salt or sweet as the case may be. The reason why the mud is separated and the salt or sugar not, is because the mud is mixed mechanically with the water, while the salt or sugar is in chemical combination.

When you attempt to write with ink on very poor printing paper, the ink will run from your pen and spread out on the paper; that too, is capillary attraction. Writing paper has its pores compressed and filled up with sizing, which destroys its capillary attraction. If you try to write on a piece of smoothly planed pine board, your ink will spread. Put a little pulverized chalk or resin on it, so as to fill up the pores, and rub it down smooth, and you will find no difficulty in writing. You will have destroyed its capillary attraction.

When you put out the clothes-line loosely it hangs in a curve; but if a shower of rain comes up you say it shrinks and becomes tight. Every fibre of the rope is a capillary tube; these tubes being flexible, and becoming filled with water contract in the direction of

heir length and so shorten the rope. Cloth nd the garments which are made from it, brink upon the same principle. Some cloths in being wet for the first time retain their hrinkage; others return to their original ondition after being dried. All these things re but multiplied instances of capillary attraction and its results.

Capillary attraction also exerts a most important and powerful influence in many of the operations of nature. Most of the disintegration and decay of even the solid rocks is due o this action. All rocks are more or less porous; these pores are all capillary tubes into which water is attracted, as into a sponge; by the alternation of heat and cold this water enlarges or contracts, and thus forces the particles of rocks asunder. In freezing, water exerts a most powerful expansive force, and often bursts rocks, especially when it gets into large crevices, with a loud report, riving them asunder, and rendering the smaller fragments a more easy prey to further action of the same kind.

It is by capillary attraction that the water, which has fallen upon the surface of the ground is subsequently conveyed to the roots of the plants and trees, and by them taken up and carried along the pores of the tree or plant throughout every part of its growth, taking with it the mineral and much of the organic substance, which goes to increase the growth of the same.

It is through the agency of capillary attraction that the margins of our California streams are everywhere lined with trees, and a richer verdure than the plains beyond. The porous earth upon the bank of the stream is constantly drawing up the water from the river by capillary attraction, and conveying it to the roots of the trees, etc., near by. It is on the same principle that you pour the water into the saucer in which your flower pot stands, rather than upon the earth at the top. It is better that the water should be *drawn up* through the hole in the bottom of the pot, directly to the roots of the plant.

It is through capillary attraction, in a great measure, that the animal heat in our bodies is kept up. The philosophy of this is as follows: Animal heat is produced by the combustion of hydrogen and carbon in the capillary vessels of the body. The food we eat is partially converted into blood, which contains both hydrogen and carbon. The blood, after leaving the veins, is taken by the capillary tubes into those parts of the body too minute to be traversed by veins, and the combustion referred to then takes place. This combustion consists in the combination of the carbon of the blood with the oxygen of the atmosphere. It is constantly going on in every part of the system, slow and imperceptible, but always producing a sensible degree of heat, which we call animal heat.

You must by this time have obtained a pretty good knowledge of the philosophy and importance of this great law of nature—one which, though silent and almost imperceptible, nevertheless works wonderful revolutions upon the earth's surface, and is indispensable to both vegetable and animal life.

Discoveries of the Last Fifty Years.—This is the age, among other things, of discovery. The human intellect has employed itself upon scientific investigation, within the last fifty years, with wonderful energy and success. Among the discoveries of the last century are:

The Steamboat.—Fulton launched the first one in 1807. Now there are over three thousand steamboats traversing the waters of America. Nearly all the rivers in the world are traversed by steamboats.

Magnetic Telegraph.—In 1800 it took weeks to convey intelligence between Philadelphia and New Orleans, now it can be done in as many minutes by the electric telegraph, which only had its beginning in 1843.

Voltaism was discovered in March, 1800.

The electro-magnet was discovered in 1821.

Electrotyping was discovered only a few years ago.

Hoe's printing press, capable of printing 20,000 copies an hour, is a very recent discovery, but of most important character.

Gaslight was unknown in 1800, now every city and town of pretense is lighted with it.

M. Daguerre communicated to the world his most beautiful invention in 1839.

Chloroform is also of recent discovery.

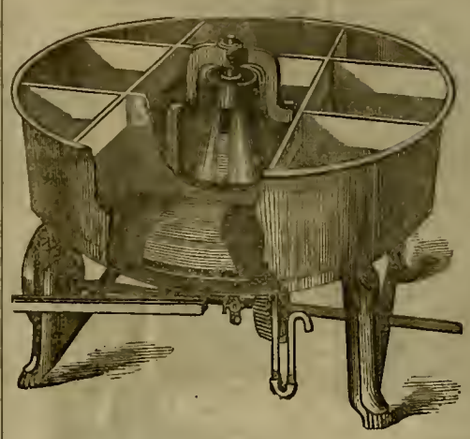
Astronomy has added a large number of new planets to the solar system.

To Preserve Hen's Eggs.—A lot of hen's eggs, buried on the ranch of Mr. S. W. Johnson, near Sacramento, during the flood of 1862, were recently disinterred, and found to be perfectly preserved. They were, undoubtedly, enveloped in a fine clay mud, impervious to air. Any other impervious coating will answer the same purpose.

Rev. J. D. Strong will lecture on *The Active Volcanoes of the Hawaiian Islands*, at the Calvary Church, Bush street, on the evening of June 5th.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of EIGHT YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of **ISRAEL W. KNOX**, OR **W. A. PALMER**, Inventors,

14v13-p12q **At the Golden State Iron Works, No. 19 First street, San Francisco.**

HEUSTON, HASTINGS & CO.,

—THE—

FASHIONABLE CLOTHIERS,

OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLES

—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12-3m ☞ **At Reduced Prices.** ☜

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE FOR STATES, TOWNS AND COUNTIES.

For the Best Chimney Top

Ever invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel.

Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee,

B. A. HENRIKSEN,
Or J. E. JOERGENSEN,

12v12-3m No. 328 Kearny street, San Francisco.

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention. 15v12-3m

---

BAUX & GUIOD'S
Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; its small cost; its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

---

Prater's Concentrator.

NOTICE.

THE UNDERSIGNED IS STILL MANUfacturing PRATER'S CONCENTRATORS, at

Devoe & Dinsmore's Machine and Iron Works.

SAN FRANCISCO.

☞ Machines constantly kept on hand, to supply orders at the shortest notice.

Address: MORGAN HUNOERFORD,
10-v12 San Francisco, Cal.

IRON!

Glasgow Iron and Metal
IMPORTING COMPANY,

Nos. 25 and 27 Fremont street, San Francisco,

Keep constantly on hand a large assortment of

Bar Iron,
Boiler Tubes,
Anvils,
Cast Steel, Etc.,

Which they offer to the trade on liberal terms. 18v12-3m

NEW MINING PUMP.

Excelsior Double-Acting Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind-mill, horse, or steam-power.

No. 1—Cylinder 2½ in., stroke 6 in.
No. 2—Cylinder 3 in., stroke 7 in.
No. 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No. 5—Cylinder 6 in., stroke 18 in.

The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,
12v12-3m 120 Front street,

VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

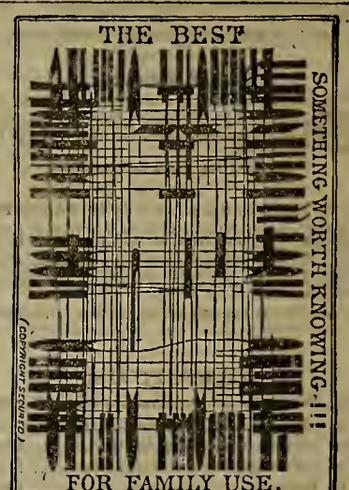
They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and settlers for themselves, at the **PACIFIC FOUNDRY,**
1v1 San Francisco.



Explanation.—To decipher, lower top of the puzzle to an angle of 45 degrees, then close one eye, and read at your ease, when the name of the BEST SEWING MACHINE IN THE WORLD! will distinctly appear.

☞ Circulars, with samples of work, POST FREE. ☜
Address, **SAMUEL HILL, Agent,**
21v12-2 **111** Montgomery street, San Francisco.

OIL! OIL!! OIL!!!

—OUR—

MACHINERY OIL

IS SUPERIOR TO ANY IN USE, AND IS WARRANTE NOT TO GUM.

Dell, Cranna & Co.,

511 1-2 and 513 Front street, San Francisco

IMPORTERS OF

COAL OILS AND LAMP STOCK.

21v12-3m9p

FOR SALE
A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to **HEYNEMANN & CO.,**
26v11tf 311 and 313 California street.

THE PATENT OFFICE.—The number of patents issued by the Commissioner for the week ending with the 30th of April last, was 221. The number which were to have been issued for the week ending May 30th, was 188. The business of the Patent office is increasing very rapidly at the present time. The force of examiners and clerks only, now employed in the office, reaches 240. There are upwards of 50,000 models on exhibition there.

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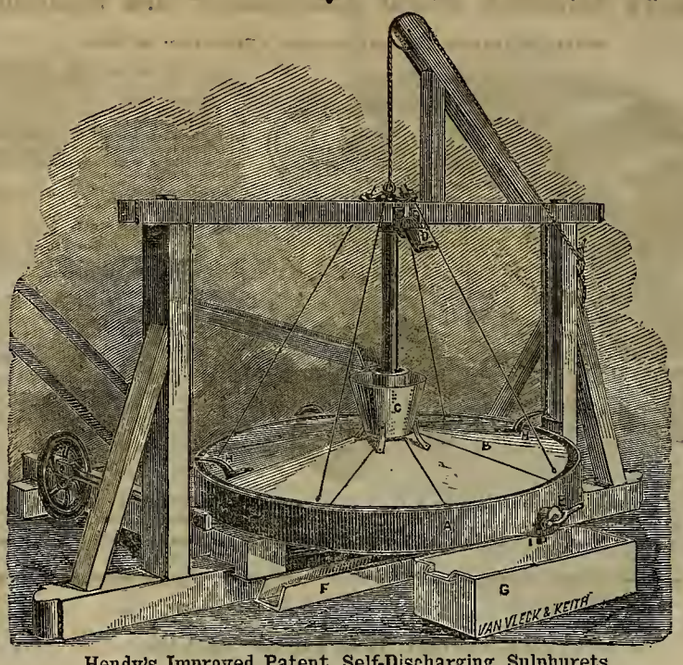

Hendy's Improved Patent Self-Discharging Sulphurets
PRATER CONCENTRATOR
Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

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CHRYSOPOLIS MILL, " " "
U. S. REESE RIVER MILL, Austin, "
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
OPHIR G. & S. M. CO., Newcastle, Placer County.
CONEY MILL, Jackson, Amador County.
WINNER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.
CARROL & ASPINWALL MILL, Reese River, Nevada.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:
One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
Six Concentrators for the Benton Mill, Bear Valley, Mariposa Co; ordered by Messrs Dodge & Bro, San Francisco.
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.
☞ For explanation of the above engraving, and other particulars, send for a Circular.

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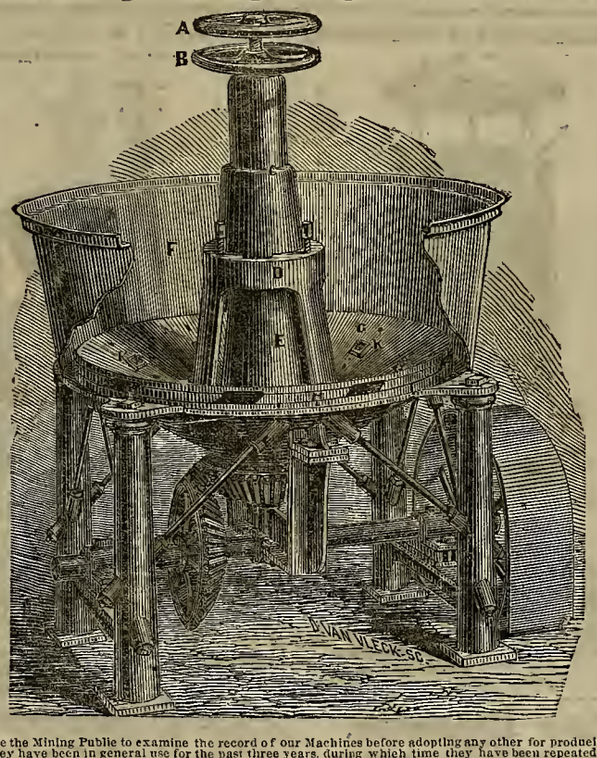

We invite the Mining Public to examine the record of our Machines before adopting any other for producing similar results. They have been in general use for the past three years, during which time they have been repeatedly tried in comparison with every other machine of note, and of a similar nature, and have invariably been adopted in preference; which facts we offer as the most suitable recommendation, and which is attested by the following list of

Principal Mills Using them:

Names of Companies.	Location of Mill.		Names of Companies.	Location of Mill.	
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SILVER STATE REDUCTN WKS.	Empire City,	"	MELVILLE KELSEY	Silver City,	"
OPHIR	Washoe City,	"	HUDGIN & FORMAN	Silver City,	"
EDWARD McLEAN	Silver City,	"	YELLOW JACKET	Empire City,	"
SANTIAGO	Zephyr Flat,	"	BELDIN & GREGORY	Esmeralda,	"
RAPHAEL & HUSTED	Gold Hill,	"	HECKENDORN	Calaveras Co.,	Cal.
FRENCH & BESLER	Dayton,	"	CARSON CREEK	Calaveras Co.,	"
HERMAN, KETSCHER & CO.	Carson River,	"	CROWN LEAD	Mariposa Co.,	"
A. SUTRO	Dayton,	"	BIG BLUE LEAD	Tulare Co.,	"
DAVIS & BARRON	Carson City,	"	E. T. STEEN	Amador Co.,	"
PHŒNIX	Silver City,	"	EAGLE	Amador Co.,	"
CHAS S. COUVER	Silver City,	"	IDA MILL	Owens River,	"
PIONEER	Silver City,	"	ALACRAN	Sonora,	Mexico.
L. A. BOOTHE & CO.	Virginia City,	"	SANTA CLARA	Sonora,	"
A. DELAND	Washoe,	"	ROSARIO & CARMAN	Sonora,	"
SUCCESS MILL & MINING CO.	Gold Hill,	"	LIBERTAD	Sonora,	"
RODGERS & GRISSAM	Silver City	"	DON JUAN ROBINSON	Sonora,	"
ANDERSON & SEAL	Washoe,	"			

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SAN FRANCISCO, SATURDAY, JUNE 9, 1866.

VOLUME XII. Number 23.

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San Francisco Jobbing Prices Current,

Flour, extra, ₱ bbl	6 00 @ 6 50
Do Superfine	5 50 @ 5 75
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	1 75 @ 1 80
Oats, choice, ₱ 100 lb	1 80 @ 1 90
Barley, ₱ 100 lb	90 @ 1 00
Beans, ₱ 100 lb	3 50 @ 4 00
Potatoes, ₱ 100 lb	60 @ 1 15
Hay, ₱ ton	8 00 @15 00
Live Oak Wood, ₱ cord	8 00 @10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ 9
Hogs, dressed, ₱ lb	12 @ —
Groceries, Etc.	
Sugar, crushed, ₱ lb	— @ 14½
Do China	10 @ 12½
Coffee, Costa Rica, ₱ lb	— @ 23
Do Rio	22½@ —
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	9 @ 10
China do.	7 @ 8
Coal Oil, ₱ gal	75 @ 80
Candles, ₱ lb	22 @ 24
Ranch Butter, ₱ lb	37½@ 40
Isthmus do	35 @ 45
Cheese, California, ₱ lb	12 @ 18
Eggs, ₱ doz	40 @ 50
Lard, ₱ lb	18 @ 20
Ham and Bacon, ₱ lb	20 @ 22½
Shoulders	20 @ 22

San Francisco Retail Prices Current.

Butter, California fresh ₱ lb	45@ 50
do pickled ₱ lb	38@ 40
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	—@ 50
Lard, ₱ lb	22½@ 25
Hams and Bacon, ₱ lb	22½@ 25
Cranberries, ₱ gal	75@ 1 00
Potatoes, old, ₱ lb	1@ —
do New ₱ lb	2@ —
Tomatoes, ₱ lb	@ —
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	3@ 8
Pears, table ₱ lb	8@ 25
Plums, dried, ₱ lb	20@ 22
Peaches, dried, ₱ lb	16@ —
Oranges, ₱ doz	50@ —
Lemons, ₱ doz	75@ —
Chickens, apiece	87@ 1 12
Soap—Pale & C. O	10@ 12
Castile	14@ 16

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.)

SAN FRANCISCO, May 12, 1866.

IRON.—Duty: Pig $9 ₱ ton; Railroad 60c ₱ 100 lbs; Bar 1@1½c ₱ lb; Sheet, polished, 3c ₱ lb, common, 1½@1¾c ₱ lb; Plate 1½c ₱ lb; Pipe, 1½c ₱ lb; Galvanized 2½c ₱ lb.	
Scotch and English Pig ₱ ton	55 @60
American Pig ₱ ton	50 @55
Refined Bar, bad assortment, ₱ lb	3 @—
Refined Bar, good assortment, ₱ lb	3½@—
Boiler No. 1 to 4	4 @ 5
Plate No. 5 to 9	4½@ 6
Sheet No. 10 to 13	4 @—
Sheet No. 14 to 20	5 @—
Sheet No. 24 to 27	5½@—
COPPER.—Duty: Sheathing 3½c ₱ lb; Pig & Bar 2½c ₱ lb	
Sheathing ₱ lb	34 @36
Sheathing, Old	20 @30
Sheathing, Yellow	30 @32
Sheathing, Old Yellow	12 @13
Bolts	13 @16
Composition Nails	30 @32
TIN PLATES.—Duty: 2½c ₱ lb.	
Plates, Charcoal, IX ₱ box	16 @18
Plates, I C Charcoal	14 @15
Roofing Plates	12 @13
Banca Tin Slabs, ₱ lb	30 @35
STEEL.—English Cast Steel, ₱ lb	12½@16
QUICK-SILVER.—Per lb	— @75
For export	65 @—
ZINC.—Sheets ₱ lb	9½@10
LEAD.—Pig ₱ lb	8 @—
Sheet	10 @12
Pipe	10 @12
Bar	10 @11
BORAX—California, ₱ lb	20 @23

COMMENCEMENT DAY IN OAKLAND.

Commencement Day at Oakland is fast becoming one of the most interesting days in the calendar of California—at least it is so to all that portion of our people who claim sympathy with the great Brotherhood of Letters. It is already, *par excellence*, the literary festival of the Pacific coast. It was a happy thought of the Faculty and Board of Trustees of the College of California, or whoever else may have suggested it, to originate the idea of a general association of all the *Alumni* upon this coast, with the view of holding an annual meeting at Oakland, for literary exercises and for the interchange of friendly greeting. Situated, as graduates are here, at too great a distance from their respective *Alma Maters*, to make annual pilgrimages thither, as was their wont before they placed the broad expanse of a continent between the scenes of their youth and their present chosen homes, we can conceive of no happier substitute for the customary literary festivals at the East, than this annual meeting of the "Associated Alumni of the Pacific Coast." The place and the time of this meeting has also been most fitly chosen; and each advancing year of its existence will add to it an interest which will grow with its growth and increase with its strength, until it shall hear upon its rolls the name of every friend of learning and every lover of science, who may be entitled to a membership, under the liberal rules which have been established therefor.

Wednesday last being the third annual reunion of the Associated Alumni, and the third Commencement of the College of California, was the occasion of the largest gathering of literary and professional men ever witnessed on the Pacific coast. The exercises of the day commenced at half-past twelve, and were opened with prayer by Rev. S. H. Willey, acting President of the College. The programme of exercises by the graduating class, which was delivered by excellent music by Willis' Band of this city, comprised the following pieces:

1—"Salutatory," in Latin, Clarence Fontenecau Townsend, San Francisco.

2—"Sectarianism," Lowell James Hardy, Oakland.

3—"Our California Home," William Douglass Harwood, Oakland.

4—"The Student's Retrospect," poem, Clarence Fonteneau Townsend, San Francisco.

5—"Martyrs," with Valedictory Address, Charles Ashley Garter, Shasta.

The themes were happily conceived, well written, and their delivery elicited general applause from the large audience of ladies and gentlemen in attendance. The exercises were followed by the Annual Oration, which was pronounced by the Rev. Horatio Stebbins, who, after a few preliminary remarks, announced for his subject, "What ought an Educated Man to know—to think—to be?" The subject was handled in the usual felicitous and forcible style of that distinguished orator.

After the close of the oration, President Willey conferred the degree of Bachelor of Arts upon the graduating class, whose names are given above; and also announced the honorary degree of Master of Arts upon several gentlemen.

MEETING OF THE ALUMNI.

Soon after the conclusion of the Commencement exercises, the Associated Alumni was called to order by the President, John W. Dwinelle, Esq., and opened by prayer by Rev. A. L. Stone, D. D. Judge Shafter was then introduced, and delivered the Annual Oration—a most elaborate production of high literary merit, and replete with thought and instruction. His subject was a consideration of the chief differences which distinguish the present from the mediæval age.

The speaker appeared to think that there was about as much intellectual activity in the middle ages as existed at the present time; and that the chief difference between the two consists in the fact that while the thought of the present age takes the shape of philanthropic inquiry which leads to progress, utility and correct results; the intellectuality of the middle ages displayed an equal activity, but developed itself in dogmatic controversy which led so rapidly and so surely to error of judgment, that human understanding soon came to be entirely misapplied.

It is only since the period of our colonial history that the world has been emancipated from dogmatic thought, and freed from the errors of judgment consequent thereon. A spirit of free inquiry and material progress is characteristic of the present time. The range of thought and effort has been so enlarged and ennobled, and the bonds of human brotherhood so strengthened that a vast improvement has been wrought upon the past, which gives vantage ground for attainments still higher and nobler yet.

At the conclusion of the oration, the audience was favored with some extemporaneous "verses" by Rev. Mr. Buel, which produced much merriment, and which, under the circumstances of a disappointment in a regular "poet," was probably quite as acceptable to the audience as a more elaborate production would have been.

BUSINESS MEETING OF THE ALUMNI.

After the conclusion of the above exercises the audience was dismissed for a season, and the Associated Alumni met in session for the transaction of business. The following gentlemen were elected officers of the association for the ensuing year: President, Oscar L. Shafter; Secretary and Treasurer, Prof. M. Kellogg; Executive Committee, Ed. Tompkins, Sherman Day, and Rev. S. H. Willey.

The following gentlemen were elected honorary members of the association: Dr. Henry P. Fisher, F. Bret Harte, Judges Currey and Sawyer, of the Supreme Court, D. P. Barstow, G. M. Blake, Hon. E. Gartier, W. B. Ewer, Rev. B. E. S. Ely, M. A. Low, Rev. C. Ames, Dr. R. E. Cole, W. W. Crane, Louis McLane, Rev. B. T. Martin, Jacob Hardy, T. B. Towns end.

THE BANQUET.

The business having been brought to a close, the Alumni, with their invited friends, formed in procession and marched from the Audience Chamber to the College Hall, where an elegant banquet had been prepared by the young ladies of Oakland. The tables were tastily arranged, with floral ornamentation, and loaded with an ample sufficiency of delicious berries and substantial pabulum, the excellence of which was largely enhanced by the angel-like ministering of the fair purveyors. Four tables were laid the entire length of the large hall, with a cross table at the head, every seat to which was filled. After the appetites of the classic guests had been duly appeased, the attention of the company was diverted from the more sensual creature enjoyments to "a feast of reason and a flow of soul" which none but a company so collected and so conditioned can fully appreciate. President Dwinelle, in a few brief and pertinent remarks, reminded the Alumni that another year of their associated existence had passed away since they had been last assembled around that festive board, and forthwith proceeded to announce the regular toasts of the evening.

We regret exceedingly that space will not admit of our giving those sentiments in full, together with the volunteers that followed, and the appropriate, felicitous and often elegant remarks with which they were received. Suffice it to say, that the large assembly, graced as it was, after the collation, with a great number of ladies, was held spell-bound till the president announced the near approach of 11 o'clock, the hour fixed for the departure of the special boat, which was to convey to this city a large portion of the company which had crossed the Bay to take a part in the festivities of the day. Thus has the Associated Alumni of the Pacific coast passed another most joyful and happy re-union, exceeding in interest and attendance any similar occasion of the past. May these happy and profitable seasons continue to return with augmented interest, until the classic shades of Oakland shall witness the gathering of thousands instead of hundreds to celebrate the recurring anniversaries, and recall the happy memories of their early college days.

MATCH FACTORY ON THE POTRERO.—A match factory on the Potrero, near the end of Long Bridge, has just been put in operation for turning out block matches. In this connection it is worthy of mention that there seems to be a steady demand for all kinds of manufactures in this city. New establishments are going up every week. Many mechanics seem to be overrun with business. San Francisco is destined soon to be a great manufacturing city.

"THE MUSTER ROLL" is the title of a little temperance paper which has just made its appearance in this city. It is published at 522 Merchant street. It is "devoted to the temperance cause," and from its motto we see it is determined to "fight it out on this line." May it do valiant battle and lead on to glorious victory.

RARE BUSINESS OPPORTUNITY.—We would call the attention of capitalists and those desiring to engage in a reliable and permanently profitable business, to the advertisement in this paper of land, wharf and store-houses, for sale in Alameda county. We have reason to believe this chance for investment is a good one.

POTRERO OIL WELL.—Boring still goes on at this well. The drill is now passing through lime rock and green shale, at a depth of 350 feet.

Communications.

IN THIS DEPARTMENT we invite the FREE DISCUSSION of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

The Clear Creek Mines, Kern County.

BY OUR SPECIAL CORRESPONDENT.

"Still raining!" "Will summer never come?" is the question on the lips of every one I meet. The "oldest inhabitant" has never seen the like, and the Digger Indian hangs his head and says nothing, for even in the memory of his ancestors such a season has not been known. Three days ago the hay and grain harvest was in full blast, crops were excellent, and all were in fine spirits. To-day the heavens are overspread with clouds, the rain sifts steadily down upon the valleys, and the mountains are covered with snow.

But I sat down to tell you about my trip to Clear Creek, not to indulge in gloomy reflections concerning the weather, and as the mines are the main topic of interest with the readers of the PRESS, I shall make it a point to give as full a description of those I saw, as time and space will allow.

Leaving this place at an early hour the 9th inst., I arrived, after a ride of thirty-six miles at Deer Creek, where I spent the night with a farmer, and in the morning, rode out to White River, a distance of fourteen miles, where, however, I only stopped long enough to take dinner and hait my horse, as I depended on exploring the mines on my return. I made the acquaintance, however, at this time of Mr. L. Mitchell, the merchant of the place, and Mr. Egan, Superintendent of the White River mining company, from whom I obtained considerable information which will be embodied, however, in my notice of the White River mines from notes taken on my return trip.

A further trip of three hours, over a steep, but beautifully diversified country, brought me to Linn's Valley, twelve miles further on the Clear Creek road. This is one of those beautiful elevated valleys, found in so many parts of the Sierra Nevada, where the climate is delightfully cool in summer, without being so cold in winter as to cause inconvenience and discomfort to the inhabitants, and where a rich soil and abundant water furnish all the requisite natural advantages for a prosperous agricultural community.

Sixteen miles from Linn's Valley, up a rather steep grade, brought us to the summit of the western range of the Sierra Nevada, and I saw for the first time in my life the far-famed Kern River Valley, regarded by prospectors of ten years ago, as the true El Dorado, the richness of whose placers was the theme of conversation in every miner's camp from Los Angeles to Yreka. The river winds along through green meadow lands, which seem like an emerald gem, set in strange and beautiful contrast to the bare granite hills surrounding it on every side, and seeming to form an impassable barrier between this oasis-like valley, and the outside world. The glare of the mid-day sun on the surrounding hills, only seemed to highten the effect of the cool quiet beauty of the lovely valley and its sparkling river. The summit on which we stood, was covered with quite a thick growth of pine timber, and a short distance below we came upon a saw-mill which was being fitted up for the purpose of putting it into marketable shape. This is the Summit Mill, now leased by Judge Wayland, who is putting it in thorough repair for its summer's work. Here we received a true mountain welcome, and shared the woodman's dinner, with appetites sharpened by our mountain ride, and with spirits refreshed, I resumed my journey, while my companion, being of the same political faith as the Judge, and also badly in want of office, remained behind to discuss the chances of election, and the state of the country. Twelve miles down a steep, irregular grade, and I was on the bank of Kern river, just below the little village of Kernville. One mile above the village is the establishment of the

CALDWELL AND KERN RIVER CONS. M. CO.,

Under the management of Mr. G. H. Staples. The property consists of the Big Blue mill, of twelve stamps and capable of crushing twenty tons of ore daily, together with three or four ledges located in the granite hills, west of the river. The only one now being worked is the Sherman, which is opened by two inclines, to a depth of 250 feet, showing a vein of quartz, from one to three feet in width, running in a northeast and southwest direction, and dipping westward (into the hill) at an angle of from fifteen to twenty degrees. The rock pays from fifteen to twenty dollars per ton in free gold, after which the sulphurets are concentrated on blankets and worked by a chemical process, which is said to save *all the gold;* the inventor declaring that he often *beats the fire assay.* One thousand feet east of the Sherman, is the Big Blue lead, lying in a north and south direction, and over sixty feet wide. The quartz from this lead is of a bluish cast, and assays from $50 to $200 per ton, but from some cause unknown has never paid in the mill over five or six dollars. It has been for the present abandoned, and its owners have sold their mill to the C. & K. R. Co., as above stated. I spent the night at a hotel in Kernville, and in the morning, a ride of sixteen miles brought me to

HAVILAH,

The county seat of the new county of Kern, and the general business center for all the mining region south of Kern River, and between that stream and Owens River Valley. It is situated in a deep narrow valley or cañon, on the east branch of Clear Creek, a tributary of Kern river, coming in from the south side. It contains some 500 or 600 inhabitants in the town proper, with probably as many more in the mines in the immediate neighborhood. There are half a dozen stores, three hotels, and innumerable saloons, etc., all apparently doing a good business. The hotels all have—though the buildings are unfinished—an inviting and thriving appearance, but as I was perfectly content with the first one I tried, I had no occasion for trying the accommodations of the remainder. I was, while there, the guest of Mons. L. Watier of the Golden Gate Hotel, for whom I can truly say that he makes his guests at home, and does everything in a style that shows that he "knows how to keep a hotel."

The mines of Clear Creek proper, are nearly all comprised in a strip of country about one mile wide and from three to four miles in length, on the eastern slope of the ridge, lying west of Havilah, and are all within three miles of the town. The ridge is of granite formation, steep, dry, and covered with a sparse growth of scrub oaks, chapparal and meschal, or Spanish bayonets. In some of the gulches sufficient water is found to supply a boiler and battery, but this is very rare, and most of those owning mines on the ridge are compelled to build their mills along the stream that passes through the town, and haul their rock or pack it on burros often a distance of three miles. Within the limits named from 500 to 800 veins have been located and recorded, but the number on which actual work is now going on does not probably exceed a dozen. Most of the veins are small and irregular, but the rock from nearly all is quite rich, and as the granite in which they are located is generally much decomposed, they can be worked, with proper care and economy, with considerable profit until the water level is reached. Some of them have been followed to a depth of over 100 feet without any blasting. On arriving at the water level and its accompanying hard rock, it is probable that most of these small mines will have to be abandoned on account of the great expense of working.

The most extensive enterprise in the district is that of the

NEW YORK AND CLEAR CREEK MINING CO.,

Represented here by Mr. J. C. Birdseye, and Mr. E. Bigler, a son of ex-Governor Bigler of Pennsylvania. This corporation owns twenty-five different veins, upon four of which I believe they are now at work. They have a fine 10-stamp mill which will be in operation in a few days. It is to be driven by a 40-horse power engine, and to contain all the best approved appliances for saving gold, including one of Prater's and one of Hunter's concentrators. They have also completed an excellent road to their principal mine, the Rochford, two and a half miles distant, and elevated above the mill about 1,500 or 2,000 feet. This mine is opened about 140 feet deep, and for about 150 feet along the vein, revealing a lode, running in a northeast and southwest direction, and dipping to the southeast, slightly. In width it varies from a few inches to five feet, averaging, probably twenty inches. Mr. Bigler sets down the average yield of gold at sixty-five dollars per ton. Besides the Rochford, which is the best developed of any, may be mentioned the French Friend and Cape Horn, both large fine looking ledges, also the property of this company.

Of nearly, if not *quite* equal importance with the above, is the enterprise of

COL. A. A. RAND & CO.,

Who own fourteen different veins. Their mill is situated a mile and a half northwest of Havilah, and consists now of one 5-stamp Bryan battery, which, however, is about to be replaced by a well built 10-stamp mill, driven by a 20-horse power engine. The principal mine belonging to this company is the Relief, which has been opened 195 feet deep, and 120 feet along the vein. The lode will probably average three feet thick, though its size is quite irregular. Col. R. estimates the average yield of this vein at twenty-eight dollars per ton. A small vein on the same property, the name of which I have forgotten, furnished fifty tons of quartz, paying over $100 per ton. Besides the Relief, this company own locations on the Fame, French Friend, Democrat and Josephine ledges, which prospect well. Most of these veins are quite near the mill, and the expense for transporting quartz is very light.

THE UNION MILL,

Located half a mile above the town of Havilah, and owned by C. T. Meader and J. H. Pieper, is probably the best mill now running in the district. It consists of two batteries of five stamps each, and a prospecting battery of two light stamps, with two of Hunter's concentrators, driven by a 25-horse power steam engine. It is employed partly as a custom mill, and partly in crushing the quartz from the Jenny Lind vein, which belongs to the same parties. This mine is situated on the south side of Jenny Lind cañon, three-fourths of a mile west of the mill, with which it is connected by a good road, over which the quartz may be drawn to the mill at a maximum cost of seventy-five cents per ton. A tunnel has been run into the hill on the ledge a distance of 125 feet, developing a chimney forty feet long and from one to five feet in thickness, containing *some* very rich quartz. The average pays about twenty dollars to the ton, while some goes as high as seventy-five dollars. A clay "gouge" or casing extends the whole length of the tunnel, and there are indications in the back end of the tunnel that another chimney will soon be struck.

The McKidney mine and mill have probably produced more gold than any other enterprise in Clear Creek district, but owing to a difference of opinion among the proprietors, the establishment is now closed, and I was unable to get an opportunity to examine it.

The above are the most important enterprises that have yet been undertaken in this district; but in addition to these may be mentioned the General Grant mill, of ten stamps, three miles east of the town on the opposite ridge, built to work a small vein located near, but idle just at the time of my visit for want of quartz. The Robinson mill, located between the Union mill and Havilah, of five stamps, is not yet in running order. The Thomas mill, of eight stamps, just at the lower end of town, which is kept running on rock from a series of ledges claimed by a Mr. Davis, and which are said to pay well. The Howe & Otis mill, of five stamps, is located about a mile above Col. Rand's on the ridge, and is kept busy part of the time on rock from a series of small leads owned by Messrs. Howe & Otis, which pay from $15 to $20 per ton. Messrs Marsh & Kennedy have a small water mill three miles below town on the creek, which is kept running constantly. I failed to visit this mill and make the acquaintance of its owners during my stay at Havilah, a fact which I have since very deeply regretted.

MT. SINAI DISTRICT

Is located in a depression on the summit of the second range of the Sierra Nevada, known as Tichnor's Basin, and on the headwaters of Kelso's Creek, from which it is often known as Kelso Cañon district. Claraville, the capital of this district, is about fourteen miles east of Havilah. The formation of the district is granite, the face of the country gently undulating, and good timber and water is abundant. I rode over from Havilah on the 15th, accompanied by Mr. Coleman, of the latter place, and we were joined in the evening by Messrs. Burke, Bigler and Amsbury, of Havilah, and Sanborn, of Keysville, making altogether about as merry a party as one usually finds. The whole party were very hospitably received and entertained by the miners of the new district, and in the morning, being furnished with reliable guides, we sallied out for a gallop over the hills to look at the leads, from which we returned to take dinner with Messrs. Kaufman and Chapman, of the Chapman mining company, at two o'clock in the afternoon. The principal vein in this district is the Antelope, which has been traced over a mile in a northeast and southwest direction. It is owned by about a dozen different parties, who have sunk shafts at different points on the vein, some of them as much as thirty feet deep. The vein appears to be about three feet wide, dipping slightly to the eastward, and is said to prospect well wherever opened. Parallel with the Antelope, and a short distance west of it, is the General Grant, the principal location on which is owned by the Chapman mining company. On this vein the deepest shaft in the district has been sunk by Messrs. Phillips & Henry, who are down eighty-five feet, showing a fine vein three or four feet wide, which is decomposed for a depth of seventy feet, but below this runs into a solid blue rock of a character entirely new to me, but which, I am informed, prospects well, both in gold and silver. There are several other veins in the district, most of which are small, but many of them, among which are the Hamp. Williams, the Yreka, Statesman, and others, are very rich.

D.

Visalia, May 26, 1866.

[To be Continued.]

[Written for the Mining and Scientific Press.]

From Placer County.

[By Our Traveling Correspondent.—Continued from p. 338.]

MESSRS. EDITORS: I arrived in this "ancient" and goodly town, famous in days past for its rich placer mines. It required no great skill to unlock those safes of Nature, and millions of treasure were easily extracted. It is different now. A bird's eye view discovers to me well defined gold bearing quartz ledges, crossing and recrossing mountain and cañon, peering boldly above the surface of the ground to tempt the cupidity of the "Honest Miner." And the miner is abroad. With pick and shovel in solitary places he fights the stubbornness of matter, ever assured from "indications" that far beneath lies wealth equal to that of the Grass Valley mines, which will be revealed when *capital* shall develop the claims. Favorable notices of the Newcastle and Ophir mines have so often appeared in print, that I pass them by for the present.

I first visited the Taylor company, situated on the Central Pacific Railroad, one and a half miles from Auburn. It is owned by Moses Taylor, Boggs & Woodin. It consists of 1,700 feet. The lode is three feet thick and is followed by a shaft to a depth of fifty feet. Its direction is northwest and southeast. There are two parallel veins of one foot in thickness. The one on the south dips fast toward the principal vein, and the two are supposed to connect or belong to the same lode. The rock assays from $20 to $160 per ton. This vein runs parallel to the Crœsus.

NORTH STAR DISTRICT.

The Black ledge is located three miles north of Auburn. Some very rich rock was tested by hand mortar, when at least $1,000 was taken from 300 pounds of rock. They had sunk a shaft to the depth of eighteen feet. This claim is owned by McGonagle and others. Adjoining the above is a very rich surface claim of three acres, from which over $60,000 has been taken in the past five years. Along and near the Black Ledge there is over 100 acres of placer mining ground not yet worked out. One nugget from this ground was worth $400 and another $850. Others have been taken varying from $100 to $800.

THE GREEN EMIGRANT.

This claim is located on Bald Hill about three and a half miles north of Auburn. It includes one large chimney and is very rich in gold specimens. The sulphurets are also rich. The day I visited this claim they took out the value of $100 in beautiful specimens. The deepest shaft is twenty-seven feet. They have a drift from the bottom of a 22-foot shaft, which runs sixty-five feet, cutting several veins, one of which prospected very well, paying from $75 to $80 per ton. They worked rock in an arastra which yielded upwards of $100. This vein is owned principally by McGonagle, Bell and Mitchell.

THE WHITE AND GARDINER

Is one mile north of Green Emigrant and probably a continuation of the same. It consists of 1,800 feet. The lode is four feet from wall to wall. The pay vein at the depth of an incline of 100 feet is about sixteen inches, with smaller veins coming in. Some of the rock yielded $115 per ton; $40 is looked upon as a low average. The mine is owned by White, Gardiner and Gautier.

THE WELLS LODE

Is not far from the White and Gardiner. It is of undoubted richness, gold being visible in much of the rock. The vein matter is four feet wide, and the whole amount is working ore. The owners claim for it a yield of $60 per ton, which opinion is concurred in by all who have examined the rock. The ore is now being sent to a mill for crushing, and before the closing of this letter I shall probably learn the result. A shaft is being sunk, and energy and skill are combined in bringing forth the treasure so abundantly indicated. The lode was named for its discoverers, who, with Mr. Jordan, are the present owners. Cahill & Monahan ledge is the south extension of the Wells lode, and the rock similar to the above.

GRAY EAGLE AND KENTUCKY,

Lies two miles northwest of the Wells, in Dead Man's Cañon. The lode is from six to fourteen inches wide, and the owners claim 2,400 feet. The direction of the ledge is northwest. It dips east forty-five degrees. The company

have a well built arastra which runs by water. They crushed three or four tons which yielded $15 to $20 to the ton. The rock contains much free gold. Occasionally nature presents a sample of artistic beauty amid the chaos of his subterranean works, and here I noticed among the rich sulphurets the corrolla of a flower in beautiful imitation of those which, at this season adorn the country. The owners of this ledge are A. B. Van Arsdale, W. T. and J. L. Ray.

Just below Auburn and in the same ravine, is a valuable property known as the Poland Ranch. There are several well marked veins within its bounds. The following are some of them, viz.. the American, Jackson, Conrad, Herald and Holdridge. These have been more or less prospected. Free gold is found by simply washing the dirt or crushed rock of the veins, but the chief riches seem to reside in the iron sulphurets. A ledge has been very recently located belonging to the above group. It is known as the Poland lode. The assay of the very ordinary looking ore gave seven ounces of gold and five ounces of silver to the ton. The vein matter is filled with sulphurets, and doubtless with proper concentration would furnish a very rich mass. To the same group belong the Golden Stag, Peter Walton and other leads, the value of which is well established. A very small, but very rich vein was located within the same range a few days ago. It belongs to the Stonewall company, and is a continuation of the Walton and the Poland. It varies from four inches to less than one inch in thickness. So rich in gold is it that the owners extracted $1,400 by pounding and washing within a few hours.

A large lead a few hundred yards from the incorporated limits of Auburn was located last week. It yields twenty-five ounces to the ton, mostly gold. It is a *sulphuret* vein. Another small vein of great richness was found by a wood-chopper a few days since near Bald Hill. I have not learned the names of these new discoveries.

I must not neglect the Mineralia ledge, owned by Messrs. Heley and Millett. It has been prospected fifty feet deep. The owners have entire faith in it, and are now erecting an 8-stamp mill, which they expect to have running within two months.

Truly Yours, PROSPECTOR.

Auburn, May 16, 1866.

[Written for the Mining and Scientific Press.]

Letter from Placer County.

EDITORS PRESS:—A few days ago I met in this place your energetic agent, Mr. KNOX, who was then engaged in extending the circulation of your paper with the most gratifying success, and as he found his labors in that line quite sufficient to occupy his time, he requested me to relieve him of the additional duty of sending you a report from this place—that request elicits the present letter.

FOREST HILL,

As, perhaps, the most of your readers are aware, is situated in Placer county, about twenty miles from Auburn, the county seat. I say most of your readers are probably aware of this, but there is a general ignorance in California, and particularly in San Francisco, as to the position of the different mining towns, and this place is not unfrequently confounded with Forest City, in Sierra county—I, therefore, designate it, so that its locality may be understood. The town is built upon a ridge or backbone of the lower Sierra, washed on one side by the North Fork of the American River, and separated from the associate hills of the chain on the other by a succession of mountain cañons.

For the present we will speak of this ridge from Todd's Valley, about two miles below, up to Sarahsville, an equal distance above.

CHARACTER OF THE GOLD-BEARING DEPOSIT.

A bed of gravel from one to two and even three hundred feet in depth, by perhaps a mile, and in places even two or three in breadth, extends uninterruptedly from Todd's Valley to Sarahsville, and, doubtless, much farther above and below; but within these limits it is perfectly continuous and generally uniform in character. Doubtless this gravel range, like all similar ones through the Sierras, owes its origin to ancient water currents, whose date is lost in the past. I think that about the year 1854, some casual mining operations led to the discovery of the wonderfully rich channel passing into the larger gravel bed of Forest Hill, and various tunnels were undertaken to reach it, all of which met with success—an unusual thing with general mining operations; but the rich channel continued its course with unvarying regularity through a long series of claims, and the names of the Deidisheimer, Rough and Ready, Main, Gore, Jenny Lind, New Jersey, Independence, Dardanelles, and many others which it is not worth while to particularize, would no doubt be familiar to many of your readers, and bring back reminiscences of extraordinary dividends belonging to the days of their glory.

In less than two years the Jenny Lind paid in dividends over *six hundred thousand dollars;* and the yield of other claims was equally large. But rich deposits, like other desirable things, may be exhausted, and in time the golden channel was stripped of its treasures. Then followed a period, extending over the last three or four years, of decay for Forest Hill. There were strong hopes of finding a channel further back in the hill; but much labor and money were expended without success, and the value of the mines began to be a question of grave doubt, when the discovery was made that the hard gravel forming a large part of the main deposit, impossible to reduce by any system of sluice washing, and therefore always considered worthless, might be made to yield the gold it was known to contain by stamping, and treating it in all respects like gold-bearing quarts.

An experiment was made with a stamping-mill at Sarahsville with complete success. The hard gravel there gave about ten dollars to the ton, and as the expenses for mining and milling did not exceed two, the profit was very handsome. At present, the Dewey claim at that place, with a 16-stamp mill, is paying in dividends regularly of sixteen hundred dollars per week. There are four interests in this claim, and some of them have lately changed hands at ten thousand dollars. They are now, however, being held higher.

The first mill erected upon Forest Hill was upon the Big Spring claim, and expectations of a handsome result were general; but there was a disappointment, owing either to the imperfect working of the gravel, or want of care in its selection. Soon after, Mr. Reamer, of the New Jersey, started a mill upon a claim purchased by him, and here the result was entirely satisfactory. Then Mr. Northwood began crushing from his claim with equally good results, and it may now be considered demonstrated, that in the immediate vicinity of Forest Hill there is a deposit of gravel six miles in length by perhaps three in width, of which a large part will pay for crushing. When one considers a mining field of this extent, its capacity for furnishing profitable employment, and the yield of gold which may be expected from it, it may well impress him with an idea of the future importance of this and other similar mining regions in California. A year or so ago it seemed as if the silver discoveries on the other side of the Sierra had followed upon the departed glory of the California mines, and that the bullion from them would fill the channel in which California's gold had once flowed. There is room enough no doubt for all the silver of Nevada, but any apprehension of a decrease in the yield of gold in California need be entertained no longer. Late developments in quartz and cement mines render the permanent supply of gold no longer a matter of doubt, and an increase rather than diminution may reasonably be looked for.

These cement deposits offer a wide field for the investment of capital. It is beyond question that a large amount of gravel will pay about five dollars a ton. A 10-stamp quartz mill can be erected in this district for from ten to twelve thousand dollars, and will reduce about fifty tons of gravel in twenty-four hours. The cost of extraction may be arranged at one dollar per ton, and that of reducing in the mill at about seventy cents, so that all the yield above two dollars may be considered as clear profit.

TODD'S VALLEY,

About a mile and half below, presents the same general features as Forest Hill, though the deposit of gravel was not so deep, and a great deal of it has been removed by hydraulic mining. There is still, however, a large amount of cement waiting to be worked in mills. I took a general view of the claims, and examined particularly the mine of Mr. Garland. This gentleman has a claim of six hundred feet front by more than a mile in depth, and is opening his ground thoroughly for future operations. The gravel he has taken out has paid for carrying on the work, and his claim may fairly be considered a valuable piece of mining property.

I have only given you a general view of the mining country about Forest Hill; but unless I am mistaken, you will hear of it, more particularly, as a very important gold-producing district before the year shall have passed.

Forest Hill, May 31st, 1866. V. W.

Mechanical.

AN ENGLISH TYPE-SETTING MACHINE.—Mr. Hattersly, of Hull, England, has recently invented and put in operation a type-setting machine, by the use of which, it is said, any good compositor can set up and justify at the rate of between three and four thousand types per hour, and that a much larger number per hour can be set up by those better accustomed to the manipulation of the machine. The machine has been in practical use upon a newspaper in the city of Hull for some six or eight months, and is said to work well. It should be recollected, however, that the English method of measuring type is by the "o" instead of the "m;" the "n" being considered the average size of the letters of the alphabet. The English machine, therefore, sets only about one-half the amount per hour which is accomplished by the Alden machine, an American invention.

A CHERRY STONER.—Among the recent inventions for domestic use, we may mention that of a machine designed to remove the stones or pits from cherries that are to be preserved, or prepared for pies, etc. The work is done by simply turning a wheel and placing the cherries, attached to the stem, in a little hopper or trough in front of the machine. When so placed, the cherries are first seized by a kind of fork, with a fall which detaches them from the stem, when they roll down an incline, where they are pierced and the stone or pit squeezed out and thrown in one direction, while the pitted cherry is dexterously flirted out in another, where it may be received in any convenient receptacle. The form of the cherry is not more injured in the process than it is by the most dexterous hand process, while the work is performed with great rapidity—the machine being set in motion by one hand while with the other the operator picks up the fruit by the stem and presents it to the action of the machine.

IMPROVEMENT IN PHOTOGRAPHY—A CALIFORNIA DISCOVERY.—The Copperopolis *Courier* of June 2d, says that a gentleman of Copperopolis, who has been for several years experimenting in the art of photography, has discovered a process of taking likenesses in colors, from nature. By the same process copies of paintings or engravings can be taken in a few minutes, making a perfect copy. These pictures, the editor is informed, can be taken on canvas, paper, leather or wood. What makes this discovery more valuable, is that in fixing the pictures after they are taken, a preparation of oil is used which resists water and dampness, making an oil picture which will never fade, and will last for ages. If the above report is correct, the invention is certainly a most important and valuable one.

ELECTRICITY AS A MOTIVE POWER.—Yesterday afternoon, says a late number of the *N. Y. Post*, at the Free Academy, Professor Doremus gave an exhibition of a new application of electricity as a motive power. The apparatus consists of a series of twenty-two electro-magnets, turning in double rows the periphery of a cylinder. By a simple combination, the electric current is open and broken, causing a driving shaft to revolve with wonderful rapidity and power. At its greatest speed the machine was instantly stopped and reversed, overcoming immediately the forward motion. The exhibition was very satisfactory. A more practical test will soon be made on one of the city railroads.

MACHINE FOR WORKING BLACK SAND.—William Thomas, of Birchville, Nevada county, has invented a machine for grinding black sand. The sand is separated at the end of the flume by an improved under-current machine. This sand is ground by the new machine, which consists of two arms. One of these is stationary, and the other turns in a hopper above it, in the same manner as a stone in a grist mill. He makes wages for one man, cleaning up about eighty dollars at a run.

THE transmission of sound through a deal board is quicker than through the air—about four times. By the way, to judge of the soundness of timber, place your ear to one end of the stick. If a rap at the other end can be distinctly heard, the stick is sound; otherwise not.

NEW HOISTING INVENTION.—Mr. George Williams, an English miner of twenty years practical experience, ten of which have been spent in America, the last five in the Colorado mines, is the inventer of an improvement in hoisting machinery, which, according to the Denver *News*, combines great simplicity, together with safety, durability and economy. The principal feature of the invention, for which a patent has been applied for, is the emptying of the bucket at the top of the shaft, together with the ease with which the same may be stopped and landed at the mouth of any drift in the mine. In lowering, hoisting and dumping the contents of the bucket, but a single reversion of the engine is required, and all these operations are done by a simple arrangement of the machine, or rather the guides upon which the bucket runs, and which cannot possibly get out of order. By this apparatus, there is not the slightest danger of anything falling from above, and the tedious delays attendant upon stopping, starting and reversing the motion when the bucket is at the top of the shaft is done away with, there being, as previously stated, but a single reversal necessary, and that is to lower the bucket after emptying.

AN EARTH TUNNELING MACHINE.—The *American Mining Journal* describes a new machine recently invented by Mr. R. Morton for tunneling in soft earth. It consists of a tube—the size of the tunnel—formed of circular or eliptical rings of cast-iron, (put together in segments), in front of which a large, wrought-iron wedge-shaped shield is pushed by a hydraulic pressure. This shield is made at the back of a similar section to the tube, but three feet or four feet larger diameter. In this annular space an ingenious arrangement of india-rubber tubes and glands forms a perfectly water-tight joint, at the same time leaving the shield capable of sliding forward. The pointed shield having been thrust forward a few feet, another ring of segments is added to the tube inside the shield, and the work proceeds as before. This machine, adds the *Journal*, seems to be a great improvement over those heretofore used in drifting through soft material, but it has many points in common with appliances that have for many years been used in various countries for sub-aqueous work, or such as contain quicksand, etc. Hence, while Mr. Morton is entitled to due credit for much, we imagine he hardly can have claimed it for all comprehended in his plan.

WHY is it that we can see heated and cannot perceive cold air? Refraction is usually assigned as the explanation of this phenomenon. When light passes at an inclined angle from one medium to another of different density, it is bent or refracted at the surface of the two media. As heated and expanded air rises from a warm body, it encounters air cooler and of greater density, and light in passing through strata of different densities is refracted at the dividing surfaces between the strata.

THERE is a magnet at the Free Academy of Cincinnati, which has supported seven men at one time. It is formed of two round bars of iron, each four inches in diameter and twenty-four inches in length. This is an electro-maguet, and retains its power so long as the current is running around it. Steel and cast-iron magnets are enfeebled by time.

A MASSACHUSETTS YANKEE has invented a cotton-picking machine, which, it is claimed, will do the work of twenty men, gathering cotton as clean as the most expert hand could do it, at a distance ranging from six inches to six feet, and taking it only from the bolls which are ripe and well open, leaving the undeveloped pods uninjured, and not harming the plant.

A TIMBER built up of sound plank and bolted at intervals, with holes suited to the size of the stick, is stronger than a solid one. The reason is that a built-up stick is of equal density throughout, while a natural one is weakest in the center.

WIRE CLOTHES LINE.—A galvanized wire clothes line is said to be a great desideratum, as it does not injure the clothes, and being itself uninjured by exposure, it does not require to be housed.

YOU can carry steam a thousand feet with little loss from condensation, provided the pipe is well protected against radiation by wood ashes.

VERY hot metal does not make as smooth a casting as dull metal, but will make a stronger one and finish up better.

THE love of pleasure betrays us into pain; and many a man, through love of fame, becomes infamous.

TO RENDER wood incombustible. Whitewash with chloride of lime.

Grinding Effects of Differently Formed Plates.

THIRD REPLY TO W. A. GOODYEAR, CIV. AND MIN. ENG.

BY P. M. RANDALL.

EDITORS MINING AND SCIENTIFIC PRESS:—In your publication of May 26th, Mr. Goodyear announces that he has retired from the field.

On leaving, he saw fit to honor me with a parting salute—a volley of words—and though its notes fall on the ear like the sullen mutterings of an exhausted and distant storm-cloud, which, while passing, cast its bolts around as though on destruction bent, yet courtesy, since I am all unhurt, compels me to respond.

This cry on the part of Mr. Goodyear of my deductions being "fallacious," and "resting upon assumptions and assertions more than questionable"—of his "want of time to reply"—of my "extravagant assertions and built-up demonstrations," though seeming like the cry of a madman rather than of a mathematician and philosopher, "ought not to be, cannot be, left unanswered to produce its effect, when that effect is obviously intended to be unfavorable.". If he has any facts, any reasons, any speculations, anything that would refute or tend to refute any statement, premise, calculation or deduction of mine, let him produce them; I hold myself ever in readiness to welcome truth and discard error. We read "that one of the good spirits would not bring against the arch-enemy of mankind a *railing* accusation; and what is *railing* but general reproach, and imputation without fact, time or circumstance?" But let us see what all this farrago of Mr. Goodyear means. I asserted in my first reply that "the tractory-formed pan would do much more work than the flat or conical pan of the same weight and diameter of muller, and do the *same* amount of work at a less expense of power." Mr. Goodyear, after correcting many of his radical errors which I pointed out to him, and proved to be errors both by absolute demonstration and by our standard authors on "*Applied Mechanics*," came to the conclusion at last that my deductions were right in reference to the theoretical grinding effects of differently formed plates of the usual ring form, and same hardness, weight, and diameter; that the ratio of these effects as to the tractory and plane plates is as three to two. In other words, that the tractory muller, in the capacity of a grinder, with the same expenditure of power, by two revolutions will reduce as much ore, or other substance, as the plane muller will reduce by three revolutions. In my second reply I set forth that in the practical treatment of ores by charges in pans a portion of the entire power is expended in stirring the mass, and that the power so expended and lost, as to any useful effect, depends, among other things, upon the number of revolutions made by the muller; that each revolution costs some power, and that this loss was variously estimated, some putting it as low as fifteen per cent., and others as high as thirty-three per cent.; but whether it was more or less than fifteen per cent. did not affect the truth of the proposition. Calling the power thus lost in the tractory pan fifteen per cent., and we have—

By one revolution of muller as a grinder, = 85 per cent.
By one revolution of muller as a stirrer, = 15 per cent.
By two revolutions of muller as a grinder, = 170 per cent.
By two revolutions of muller as a stirrer, = 30 per cent.

Total expenditure in two revolutions.. = 200 per cent.

By one revolution of plane muller as a grinder ... ... $85 \times \frac{2}{3} = 56\frac{2}{3}$ per cent.
By three revolutions as a grinder. $56\frac{2}{3} \times 3 = 170$ per cent.
By three revolutions as a stirrer. $15 \times 3 =$ 45 per cent.

Total expenditure in three revolutions.. = 215 per cent.

Now, 200 : 215 :: 100 : $107\frac{1}{2}$.

Thus showing a difference in favor of the tractory pan of seven and one-half per cent., and Mr. Goodyear cannot deny, unless in some of his extraordinary investigations on transcendent inventions he has discovered and applied perpetual motion to this case, that power is expended and lost in stirring the mass, aside from the power required for grinding purposes. To express this ratio in more general terms, let r represent the percentage for stirring, then the entire power expended in the tractory pan will be to the entire power expended in the plane, as 100 to $100 + \frac{r}{2}$. Now, this is what Mr. Goodyear terms a "*soi disant*" refutation of one of his two "*main* and *important* points"—"a built up demonstration, resting upon more than questionable assumptions and assertions—*fallacious*." But let him rave and rail at *stubborn facts*, if it affords him any relief; it will, perhaps, be fully as creditable to him as some of his attempted criticisms and demonstrations. However, that Mr. Goodyear is possessed of genius, talent and education, I have said already. His last strategic movement in quitting the field, he will probably in after years point to as one of his ablest achievements, and as fully confirming my expressed opinion. It has occurred before in the history of human affairs that the hero has gained more of renown by *one* retreat than by *all* his battles. Now, as to the other "*main* and *important* point," this *ignis fatuus*, which Mr. Goodyear takes for the polar star, viz., "Uniformity of vertical wear independent of the particular form of the surfaces," let the following suffice: Armengaud and Amouroux, as already quoted, say of Scheiles' invention: "The inventor was led to the consideration of this system (tractory) of working surfaces by the IRREGULARITIES OF WEAR in the common conical plugged stop-cock. * * * Perfect uniformity of wear in the grinding surfaces is attained by the use of the curved face. * * * And the inventor states that his experimental results go to show that a two-feet runner produces as much flour as a four-feet flat millstone." Weisbach says: "The moment has to be the same on all parts of the toe (pivot), if we wish to have equal wear of the toe (pivot) and its journal, consequently, the tangent for the whole generating curve of the toe (pivot) has to to be same, *a ;*" that is, the curve is the tractory, whose surface or solid of revolution is that of uniform vertical wear.

Professor Rankin, speaking of the tractory pivot, says: "The pressure is always uniformly distributed, and never becomes, as is the case in other pivots, so intense at certain points as to force out the unguent and grind the surfaces."

The *Engineer* (London), Vol. 21, No. 538, April 20, 1866, speaking of Ericsson's Engine, says: "The weak point in this very ingenious engine is, undoubtedly, the piston. The ends, for instance, must wear unequally, and at a rate increasing with the radius of any given point from the center of vibration. Ericsson is too good a mechanic to shut his eyes to this fact, and, accordingly, when, in 1859, the United States Navy Department submitted the problem of the best screw propeller engine for solution by the engineers of America, he presented the plan of an engine similar to that of the Princeton in all essential features, with the exception of the introduction of full cylinders instead of semi-cylinders."

It is not unfrequent to see conical mullers worn away fully three-eighths of an inch more at their upper and greater base than at their lower and less base. "Fallacious" and "extravagant" as my deductions may seem to Mr. Goodyear, it is quite evident that they are fully endorsed by those whom I hope he will yet better understand, and doubtless will, unless he be like some to whom it is said, "By hearing ye shall hear, and shall not understand; and seeing ye shall see, and shall not perceive." May this last quotation not be taken for a "*slang phrase*," as Mr. Goodyear has seen fit to term some of the choicest passages hitherto quoted from the writings of Pope, Poe, Cervantes, Ballantyne, Byron, Shakspeare and Webster. However, unfamiliarity with the writings of the most renowned poets, orators and statesmen in a "scientific man," a mathematician and mechanical critic, is, perhaps, quite excusable. But it is expected of the critic, having the public interest so much at heart as to offer himself a champion to do battle against hydra-headed error—"*fallacies*," that he will not be alien and hostile to his allies; but even if unacquainted with the standard authors on the subject which he essays to discuss, that at least he knows, or ought to know, something of the principles involved. Mr. Goodyear's attempt to appear a martyr to misrepresentation, "*slang*" and ridicule, will hardly avail him. Like the kid in the fable, it is not I, but my position, the "*stubborn facts*" on which I stand, that ridicule him. This is all the misrepresentation, all the "*slang*," all the wit, all the ridicule, there is about it. He has made his own record, and "cannot argue the seal off the bond." Mercy has constrained me hitherto not to offer a blow, but to pass by some of his premises and deductions, too lame to walk even with the aid of crutches. As for example, on page 210, first column, he committed himself to "plates of the same size," and it is evident that at the time he meant it, or else was culpably reckless as to his meaning. Much more is this evident, from the fact that he coupled with the condition another entirely incompatible with it, to wit: That the plates were to have the same vertical pressure at their outer circumference while in motion." On page 290, fourth column, he says: "My comparisons * * * were not for equal weights of the plates." What signification, then, is to be attached to the expression, "plates of the same size?" Again, he says: "The volume of a solid of uniform density is, of course, proportional to its weight, and to the total pressure produced by that weight." Now, be nowhere intimates that the plates were to be of different densities. Either a want of understanding, or an attempt at deception, is the only translation of such jargon. The most charitable construction to this, as well as to his "*railings*," is, that "clothed in a lion skin" he has confronted us. What his motives may have been, I will not pretend to predict; but let him treasure this lesson, that no one possessed of a manly spirit will suffer his business and reputation to be assailed with impunity, either by the follies of ignorance, or the madness of vaulting ambition, or the lusts of gain. Let it be understood, then, that I intend to hold my position in the field until dislodged and driven from it by superior forces.

ERRATA.—On 259th page, near the bottom, for .8889, read 1.0000; 260th page, near the top, for 1.7778, read 2.0000.

MINING SHAREHOLDERS' DIRECTORY.

List of Notices of Meetings, Dividends, Assessments and Delinquent Sales.

Comprising the Names of Companies, District or County of Location, Amount of Assessment; Date of Meeting, Delinquent Advertisement and Sale, and Amount and Time of Payment of Dividends.

COMPILED FOR EVERY ISSUE.

Advertised in the Mining and Scientific Press and other San Francisco Journals*.

NAME AND LOCATION.	AM'T OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE.
Arizona Copper Co., Arizona Ter.,	40c	July 7	July 24*
Arbitrios, Mexico,	$1 50	July 12	Aug 13*
Alpha, Gold Hill,	$50	May 25	June 25
Alameda Coal M Co,	$2	June 27	July 21
Boston Copper,	50c	June 22	July 18*
Batopilas, Chihuaha, Mex.,	25c	May 10	May 28*
Beleher Co			Sale June 9
Beleher, Baldwin & Abernathie Co,	$20		Sale June 9
Bullion			$10 00
Bunker Hill, El Dorado co.,	$1	May 23	June 11
Blue Ledge G & S M Co			Meeting June 18
Cosala S M Co., Sinaloa, Mex.,	$1	June 30	July 17*
Crocket Con., Esmeraldo co,	$1	June 23	July 10*
Capitoln, Santa Clara co., Cal.,	10c	June 12	July 2*
Capitola,	10c	June 12	July 2*
Cole, Silver,	$1	June 11	July 5
Crown Point			Dividend
Confidence S M Co., Storey co., Nev.,	$25	July 10	July 31
Diann O & S M Co., Lander co, Nev.,	$5	July 20	Aug 10*
Dios Padre, Alamos, Mex.,	$3	June 5	June 23*
Daney,	50c	May 12	June 9
Diamond Cop., Del Norte co, Cal.,	$2	May 26	June 21
Eagle, Austin, Nev.,	$1	June 16	July 6*
Evoca Cons, Cop., Del Norte co., Cal.,	25c	June 6	July 1*
Geo. Washington, Alpine co., Cal.,	$1,00	June 9	June 26*
Great Basin, Humboldt co., Nev.,	9c	June 12	July 2*
Green, Storey co., Nev		Annual Meeting	June 6*
Gold Hill, Storey co., Nev.,	$1	June 15	July 10*
Hanscom Copper,	30c	June 29	July 16*
I. X. L.,	$1-50	May 17	June 7*
Imperial			Dividend
Keokuk, Contra Costa co., Cal.,	10c	May 21	June 11*
Keystone M Co., Calaveras co., Cal.,	$10	June 23	July 10
Leland, Arizona,	25c	June 30	July 16*
Lady of the Lake, Arizona,	25c	June 30	July 16
Lady Bell, Low Divide, Cal		June 16	July 5*
Lady Bryan,	$1	June 30	July 16
Leland, Arizona		Annual Meeting	July 2
Lady of the Lake, Arizona		Annual Meeting	July 2
Mina Rica de las Flores,	$1	June 19	July 16*
Morning Star			Meeting June 20
North American Tin, Durango, Mex.,	40c	June 22	July 9*
Nuestra Sra de Guadelupe, Durango, Mex.,	$1	June 2	July 30*
Ophir of the Colorado, Arizona,	25c	June 26	July 16*
Old Colony, Austin, Nev.,	$3	June 18	July 9*
Ophir S M Co			Meeting June 20
Providence		Annual Meeting	June 20*
Rippon, Alpine co., Cal.,	$1	June 11	June 26*
Simpson M & M Co		Annual Meeting	June 14*
Sapphire, Storey co., Nev.,	$5	June 28	July 17*
Silver Queen, Lander co., Nev.,	$1	June 23	July 23*
Siskiyou M Co., Siskiyou co			Meeting June 11
Simpson & Bossell, Carson Valley,	$1	June 9	June 28*
Sierra Valley, Plumas co., Cal.,	$1	May 31	June 18*
Sierra Nevada, Storey co, Nev.,	$4	May 7	June 6
Siskiyou M Co, Siskiyou co.,	$1.50		Sale June 18
Sacramento and Meredith M Co			Meeting June 20
Salambo Copper, Tuolumne co.,	1	July 10	July 31
Table Mountain Copper			Meeting June 11
United States, Storey co., Nev.,	50c	May 26	June 13*
Union Mattole Oil co., Humboldt co., Cal,	$5	July 16	Aug 20*
Yankee Blade,	$25		June 18	July 9*

*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 77	$ 78
Gov. Legal Tender Notes	72½	73
State Bonds, 7 ₱ cent	84	85
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	..	..
San Francisco Bonds, 1858, 6 ₱ cent	72	73
Sacramento City Bonds, 6 ₱ cent	18	..
Sacramento County Bonds, 6 ₱ cent	58	65
Marysville Bonds, 10 ₱ cent	75	82
Stockton Bonds, 10 ₱ cent	80	85
Yuba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	70	80
California Navigation Co	58	60
State Telegraph Stock	33	35
San Francisco Gas Co	108	110
Sacramento Gas Co	..	75
Spring Valley Water Co	68	69
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	50	58
Central Railroad Co	..	..
North Beach and Mission	50	65
MINING STOCKS.		
Alpha	$210	$250
Bullion, G. H	52	53
Ophir	290	295
Gould & Curry	710	750
Empire M. & M. Co	140	145
Savage	850	860
Chollar-Potosi	210	215
Hale & Norcross	940	950
White & Murphy	....	....
Sierra Nevada	6½	9
Yellow Jacket	590	600
Overman	27	28
Crown Point	1000	1040
Antelope	....	....
Emeralda	1	5
Real del Monte	....	....
Buckeye	....	....
Dick Sides	....	....
Imperial	92	93
Ætna	....	....
Cedar Hill Tunnel	....	....
Wide West	....	....
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD

Friday, June 1.

AFTERNOON SESSION.

10 shs Chollar-Potosi at 210@190 pr ft, b 3.
49 shs Chollar-Potosi at 205@165 per foot.
5 shs Chollar-Potosi at 190 per foot, s 30.
10 shs Chollar-Potosi at 180 per foot, b 10.
11 shs Chollar-Potosi at 170@185 pr ft, b 5.
7 shs Chollar-Potosi at 180 per foot, s 3.
13 shs Belcher at 150@130 per foot.
2 shs Yellow Jacket at 660 per foot, b 3.
1 sh Yellow Jacket at 645 per foot, s 10.
15 shs Yellow Jacket at 640@625 per foot.
3 shs Yellow Jacket at 635@620 per ft, b 2
60 shs Ophir at 295 per foot, s 5.
212 shs Ophir at 280@305 per foot.
12 shs Ophir at 300 per foot, b 10.
4 shs Crown Point at 1000 per foot.
4 shs Crown Point at 1000 per foot, s 3.
5 shs Hale & Norcross at 960 per foot.
210 shs Exchequer at 8 per share.
25 shs Bullion at 50 per share.
30 shs Bullion at 50 per share, s 3.
5 shs Bullion at 49 per share, s 5.
22 shs Overman at 22 per share, s 10.
75 sh Overman at 22½@24 pr foot
10 shs Overman at 25 per sh, b 30.
15 shs Imperial at 110@92½ per share.
10 shs Imperial at 105@100 per sh, s 30.
15 shs Imperial at 05 per share, b 2.
12 shs Pacific Insurance at 150 per cent.
Amount of sales.....$ 60,763 00

Saturday, June 2.

12 shs Ophir at 300 per foot; s 5.
12 shs Ophir at 300 per foot, s 10.
168 shs Ophir at 293@288 per foot.
168 shs Ophir at 296@300 per foot, s 30.
48 shs Ophir at 284 per foot, s 3.
71 shs Chollar-Potosi at 210@225 per foot.
25 shs Chollar-Potosi at 222@221, s 10.
5 shs Chollar-Potosi at 222 per foot, s 3.
3 shs Belcher at 150@155 per foot.
5 shs Belcher at 150@150½ per foot, s 30.
1 sh Belcher at 160 per foot, b 5.
27 shs Yellow Jacket at 515@510 per foot.
8 shs Yellow Jacket at 530@510 pr ft, s 30.
2 shs Yellow Jacket at 540 per foot, b 30.
8 shs Crown Point at 990 per foot.
8 shs Crown Point at 980 per foot, s 3.
1 sh Savage at 860 per foot.
2 shs Hale & Norcross at 940 per sh, s 3.
20 shs Bullion at 58@57½ per share.
15 shs Bullion at 56@55½ per share, s 3.
5 shs Imperial at 105 per share, b 5.
20 shs Imperial at 105@100 per share.
5 shs Imperial at 110 per share, s 3.
5 shs Imperial at 110 per share, b 10.
5 shs Imperial at 109 per share, s 10.
44 shs Overman at 22@20 per foot, s 3.
40 shs Overman at 21½ per foot.
25 shs Overman at 20 per foot, b 20.
30 shs Confidence at 20@25 per share.
10 shs Sierra Nevada at 4¾ per share.
5 shs Cal. Steam Nav. Co. at 69½ pr ct.
Amount of sales.....$ 82,168 00

Monday, June 4.

8 shs Gould & Curry at 720@740 per foot.
59 shs Chollar-Potosi at 220@215 per foot.
15 shs Chollar-Potosi at 215@217 per ft, s 30.
2 shs Chollar-Potosi at 218 per foot, s 3.
8 shs Yellow Jacket at 540@605 per ft, b 30
8 shs Yellow Jacket at 525@585 pr ft, s 30.
19 shs Yellow Jacket at 545@540 per ft.
2 shs Yellow Jacket at 595 per foot, s 3.
2 shs Yellow Jacket at 600@575 per ft, b 3.
120 shs Ophir at 304@300 per foot.
36 shs Ophir at 300 per foot, b 3.
4 shs Belcher at 155@150 per foot
2 shs Ophir at 150 per foot, s 10.
70 shs Overman at 10@15 per foot.
10 shs Overman at 11 per ft, s 3.
60 shs Sierra Nevada at 5 per share. 3.
10 shs Bullion at 57½@60 per share.
10 shs Imperial at 110 per share.
15 shs Imperial at 107@105 per share, s 3.
20 shs Confidence at 20@18 per share.
5 shs Cal Steam Nav Co at 69½per cent.

AFTERNOON SESSION.

3 shs Yellow Jacket at 590 per foot, b 30.
8 shs Yellow Jacket at 579 per foot.
1 sh Yellow Jacket at 570 per foot, s 20.
2 shs Yellow Jacket at 580 per foot, b 3.
10 shs Yellow Jacket at 600 per foot, b 30.
6 shs Yellow Jacket at 570 per foot, s 30.
4 shs Yellow Jacket at 595 per foot, b 32.
3 shs Yellow Jacket at 580 per foot.
7 shs Yellow Jacket at 575 per foot.
1 sh Yellow Jacket at 585 per foot, s 30.
15shs Chollar-Potosi at 222½ per foot.
6 shs Chollar Potosi at 220 per foot, s 30.
10 shs Chollar-Potosi at 220 per foot
5 shs Chollar-Potosi at 221 per foot, b 3.
10 sh Chollar-Potosi at 223 per foot, b 30.
1 sh Chollar-Potosi at 220 per foot, b 3.
24 shs Ophir at 295 per foot, s 10.
12 shs Ophir at 296 per foot. b 7.
72 shs Ophir at 290 per foot, s 30.
48 shs Ophir at 295 per foot.
60 shs Ophir at 300 pr ft, 30 d.
1 sh Savage at 827½ per foot, s 3.
1 sh Savage at 825 per foot, s 3.
1 sh Savage at 8.25½ per foot, s 3.
1 sh Savage at 820 per foot, s 3.
1 sh Savage at 810 per foot, s 3.
5 shs Bullion at 60 per share, s 5.
5 shs Bullion at 60 per share.
20 shs Overman at 11 per foot, s 3.
20 shs Overman at 9 per foot, s 30.
30 shs Overman at 11½ per share.
5 shs Overman at 11¼ per sh, s 5.
5 shs Confidence at 18 per sh.
10 shs Sierra Nevada at 4 per share.
3 shs Imperial at 105 per share.
5 shs Imperial at 100 per share, s 30.
3 shs Imperial at 102¾ per share, b 5.
15 shs Imperial at 100 per share, s 5.
5 shs Imperial at 100 per share, s 10.
2 shs Imperial at 100 per share.
5 shs Imperial at 101 per share, s 5.
Amount of sales.....$119,672 00

Tuesday, June 5.

300 shs Ophir at 297½@305 per foot.
36 shs Ophir at 300 per foot, s 3.
12 shs Ophir at 300 per foot, b 30.
2 shs Savage at 825 per foot, s 3.
1 sh Savage at 825 per foot.
45 shs Chollar-Potosi at 215@225 per foot.
15 shs Chollar-Potosi at 222 per foot, s 30.
5 shs Chollar-Potosi at 224 per foot, b 3.
10 shs Chollar-Potosi at 226@231 pr ft, b 10.
4 shs Chollar-Potosi at 227 per foot, s 3.
8 shs Yellow Jacket at 575@600 per foot.
1 sh Yellow Jacket at 600 per foot, s 3.
1 sh Yellow Jacket at 605 per foot, b 3
11 shs Yellow Jacket at 605@600 per ft. s 3.
5 shs Yellow Jacket at 620@610 per ft. b 30.
1 sh Yellow Jacket at 600 per foot. b 10.
3 shs Belcher at 150@152½ per foot.
2 shs Belcher at 150 per foot, s 5.
4 shs Empire M & M Co. at 149 pr sh.
48 shs Overman at 18@24 per foot.
5 shs Overman at 20 per ft, s 30.
10 shs Overman at 23 per sh, b 3.
28 shs Confidence at 20@20¼ per share.
5 shs Confidence at 20 per share, s 3.
5 shs Confidence at 20 per share, s 5.
7 shs Imperial at 100 per share, s 3.
3 shs Imperial at 100 per share, s 10.
5 shs Imperial at 103 per share, b 5.
10 shs Bullion at 65@60 per share, s 30.
10 shs Bullion at 63 per share, s 5.
5 shs Bullion at 62¼ per share.
60 shs Exchequer at 6¼ per share.
$1,000 Legal Tender Notes at 74½@74⅝c.

AFTERNOON SESSION.

24 shs Ophir at 295 per foot.
12 shs Ophir at 300 per foot, s 10.
120 shs Ophir at 300 per foot.
1 sh Belcher at 160 per foot, b 2.
2 shs Belcher at 160 per foot.
4 shs Hale & Norcross at 916 per foot.
4 shs Gould & Curry at 700 per foot, b 3.
3 shs Chollar-Potosi at 226 per foot.
1 sh Chollar-Potosi at 227½ per foot.
1 sh Chollar-Potosi at 230 per foot.
20 shs Daney at 7 per foot.
2 shs Savage at 850 per foot.
1 sh Yellow Jacket at 6.9 per foot.
10 shs Confidence at 19 per sh, s 3.
10 shs Confidence at 18½ per share.
5 shs Bullion at 65 per share.
10 shs Bullion at 60 per share, s 30.
15 shs Bullion at 65 per share, b 30.
10 shs Bullion at 60 per share, s 3.
15 shs Overman at 30 per share.
30 shs Overman at 33 per share.
10 shs Overman at 32½ per sh, s 5.
10 shs Overman at 32½ per share.
25 shs Overman at 32 per share.
5 shs Overman at 31 per sh, s 30.
5 shs Overman at 32 per foot, b 2.
5 shs Overman at 32 per share, b 3.
25 shs Sierra Nevada at 4 per share.
Amount of sales.....$ 67,329 00

Wednesday, June 6.

261 shs Ophir at 305@307½ per foot.
36 shs Ophir at 305@32ft per foot, s 10.
24 shs Ophir at 325 per foot, s 3.
12 shs Ophir at 325 per foot, b 3.
2 shs Chollar-Potosi at 240 per foot, s 3.
74 shs Chollar-Potosi at 250@262½ per foot.
37 shs Chollar-Potosi at 265@250 per ft, b 30.
20 shs Daney at 8 per foot.
5 shs Yellow Jacket at 675@700 per foot.
8 shs Yellow Jacket at 700@690 pr ft, s 3.
8 shs Gould & Curry at 790@800 per foot.
2 shs Belcher at 170 per foot, b 3.
7 shs Belcher at 170@185 per foot.
2 shs Chollar Potosi at 190 per foot, b 30.
30 shs Bullion at 72½@65 per share.
25 shs Bullion at 72½@75 per share, b 30.
200 shs Overman at 36@40 per share.
20 shs Overman at 37½@39 per share, s 30.
25 shs Overman at 40 per foot, b 3.
5 shs Overman at 40 per foot, b 10.
15 shs Overman at 38@38¼ per foot, s 3.
15 shs Sierra Nevada at 4½ per share.
17 shs Confidence at 20 per share.
20 shs Confidence at 20½@21 per share, b 30.
10 shs Confidence at 22 per share, b 30.
5 shs Exchequer at 7 per share.
5 shs Imperial at 110 per share.
5 shs Imperial at 110 per share, b 3.
20 shs Lady Bryan at 1@1¼ per share

AFTERNOON SESSION.

4 shs Yellow Jacket at 685 per foot.
1 sh Yellow Jacket at 680 per foot.
1 sh Yellow Jacket at 675 per foot.
3 shs Yellow Jacket at 665 per foot.
2 sh Yellow Jacket at 650 per foot, s 20.
2 shs Yellow Jacket at 655 per foot.
1 sh Yellow Jacket at 652 per ft.
1 sh Yellow Jacket at 630 per foot, s 10.
1 sh Yellow Jacket at 660 per foot, s 3.
7 shs Yellow Jacket at 660@661 per ft.
1 sh Yellow Jacket at 665 per foot, b5.
3 shs Yellow Jacket at 650 per foot, s 30.
1 sh Yellow Jacket at 665 per foot, b 10.
5 shs Yellow Jacket at 662½ per foot.
6 shs Chollar-Potosi at 261@250 per foot.
1 sh Chollar-Potosi at 255 per foot, s 3.
3 shs Chollar-Potosi at 258 per foot, r w.
5 shs Chollar-Potosi at 265 per foot, b 30.
25 shs Chollar-Potosi at 256@257½ per ft.
11 shs Chollar-Potosi at 257@255½ per ft.
11 shs Chollar-Potosi at 259@265 per foot.
1 sh Belcher at 182¼ per foot
2 shs Belcher at 185 per foot.
1 sh Belcher at 190 per foot.
72 shs Ophir at 315 per foot, s 10.
103 shs Ophir at 330 per foot, b 30.
48 shs Ophir at 320 per foot.
36 shs Ophir at 320 per foot, b 3.
2 shs Overman at 39 per share.
21 shs Overman at 40 per share.
5 shs Overman at 41½ per share.
20 shs Overman at 42 per share.
5 shs Overman at 42½ per share.
5 shs Overman at 44 per share.
2 shs Confidence at 20 per share.
5 shs Imperial at 110 per share, s 3.
5 shs Imperial at 110 per share, s 10.
5 shs Imperial at 112½ per share, b 30.
Amount of sales.....$118,728 00

Thursday, June 7.

40 shs Chollar-Potosi at 265@225 per foot.
8 shs Chollar-Potosi at at 240@245 pr ft, b 30
27 shs Chollar-Potosi at 210@225 pr ft, s 10.
2 shs Chollar-Potosi at 242, b 5.
21 shs Chollar-Potosi at 240@225 per ft, s 3.
4 hs Gould & Curry at 800 per foot.
5 shs Belcher at 175@170 per foot.
2 shs Yellow Jacket at 655@650 per ft, b 30.
3 shs Yellow Jacket at 645@640 per ft, s 3.
8 shs Yellow Jacket at 645@635 per ft.
1 sh Yellow Jacket at 640 per foot, s 5
1 sh Yellow Jacket at 640 per foot, s 10.
170 shs Ophir at 315 per ft.
12 shs Ophir at 315 per foot, s 5.
12 shs Ophir at 315 per foot, s 10.
2 shs Savage at 825 per foot, s 3.
1 sh Savage at 825 per foot.
2 shs Empire M & M Co. at 145 per sh.
175 shs Overman at 36@39 per ft.
15 shs Overman at 37@30 per ft, b 10
10 shs Overman at 32@31 per ft, s 10.
3 shs Overman at 30 per foot, b 5.
10 shs Bullion at 62½ per share.
10 shs Bullion, at 60 per share, s 30.
25 shs Bullion at 61@62 per share, s 3.
15 shs Bullion at 60@61 per share, s 10.
5 shs Bullion at 60 per share, s 15.
13 shs Imperial at 107@107½ per share.
5 shs Imperial at 105 per share, s 30.
7 shs Imperial at 105 per share, s 5.
4 shs Imperial at 107½ per share, b 30.
10 shs Confidence at 21 per share.
5 shs Confidence at 22 per share. b 30.
20 shs Sierra Nevada at 4 per share.
30 shs Lady Bryan at 1½ per share.
100 shs Lady Bryan at 1 per share, s 3.
50 shs Exchequer at 7@7½ per sh.
20 shs Spring Valley W W, at 63 per cent.

AFTERNOON SESSION.

9 shs Chollar-Potosi at 210@215 pr ft.
2 shs Chollar-Potosi at 215@216 per foot, s 5.
6 shs Chollar-Potosi at 212½ per foot, s 15.
7 shs Chollar-Potosi at 210@215 per ft, s 30.
1 sh Chollar-Potosi at 216 per foot, s 5.
3 shs Chollar-Potosi at 22- per foot, s 3
6 shs Chollar-Potosi at 223¾@214¼ per foot.
5 shs Chollar-Potosi at 215 per foot, b 2.
5 shs Chollar-Potosi at 213 per foot, s 3.
8 shs Chollar-Potosi at 211@212 per foot.
84 shs Ophir at 312½@305 per foot.
1 sh Savage at 830 per foot, s 3.
1 sh Savage at 840 per foot.
2 shs Belcher at 155 per foot.
1 sh Belcher at 150 per foot, s 30.
2 shs Yellow Jacket at 615@612½ per ft.
1 sh Yellow Jacket at 610 per ft.
3 shs Yellow Jacket at 600 per foot, b 30.
1 sh Yellow Jacket at 600 per ft, b 3.
12 shs Yellow Jacket at 580@600 per foot.
6 shs Yellow Jacket at 580@585 pr ft, s 30.
1 sh Yellow Jacket at 600 per foot, b 10
1 sh Yellow Jacket at 615 per foot, b 30.
10 shs Bullion at 58 per share, s 3.
5 shs Bullion at 55 per share, b 30.
10 shs Bullion at 58 per sh, s 5.
50 shs Overman at 25@27 per sh.
20 shs Overman at 26@25 per ft, s 3.
20 shs Confidence at 22 per share, b 30.
10 shs Confidence at 20 per share, s 30.
Amount of sales.....$103,964 00

Friday, June 8.

60 shs Ophir at 295@230 per foot.
132 shs Ophir at 295 per ft, s 5.
1 sh Savage at 850 per foot.
24 shs Chollar-Potosi at 207½@320 per foot.
21 shs Chollar-Potosi at 200@215 per foot.
16 shs Chollar-Potosi at 206@212½ per foot.
10 shs Chollar-Potosi at 32 per ft, b 30
2 shs Hale & Norcross at 990 per foot.
4 shs Yellow Jacket at 695@615, pr sh.
1 sh Yellow Jacket at 595 per foot, s 30.
1 sh Yellow Jacket at 620 per foot, 20 d
40 shs Confidence at 19@20 per share.
15 shs Confidence at 21 per share, b 30.
6 shs Belcher at 155@150 per foot.
1 sh Belcher at 150 per foot, s 30.
1 sh Belcher at 160 per ft, b 10.
10 shs Imperial at 100 per share.
55 shs Overman at 29@27 per sh.
10 shs Overman at 28 per share.
5 shs Overman at 30 per share, b 10
Amount of sales.....$32,140 00

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, June 9, 1866.

There is more activity in the Money Market, but we observe no change in the rate of discount for prime business paper, nearly all of this description being readily taken by bankers at 1@1¼ ₱ cent. per month. At the present moment a strong desire to remit funds eastward, while the rates of exchange are so favorable, induces a good deal of borrowing for that purpose among merchants, either with the view of anticipating maturities, or of providing for future purchases. The financial panic in London has induced the agencies of the different banking institutions in this city to strengthen themselves a little, and most of their outstanding loans on short time have been called in recently. Telegraphic advices from London to the 25th of May, would seem to indicate a renewal of the financial storm abroad, with great anxiety as to when and where it would end. Since the date of our last report, The Commercial Bank of India and the East; the Oriental Commercial Bank, limited; the Bank of London, limited; and the European Bank of London — have suspended. The losses of the first-named institution have exceeded, during the past year or two, $2,500,000, including some $1,000,000 by the San Francisco Branch. The Oriental Commercial must not be confounded with the Oriental Bank Corporation, which latter has a paid up capital and reserve fund of more than $10,000,000, and is regarded as one of the staunchest banks in London. The failure of the Bank of London appears to excite some surprise, and was evidently not looked for on this side, although its paid up capital and reserve fund did not exceed $3,500,000. The business of that bank has been transferred to the Consolidated Bank, and remittances to cover drafts will be faithfully applied to their payment.

Receipts of Bullion from the interior, since the 30th ult., amounted to $1,250,000, and during the month of May the deposits of gold and silver at the Branch Mint in this city exceeded $2,250,000.

The Bullion Market is in a state of fermentation, and the shipping demand very active at higher figures than have ruled for a long time past. Sales of Gold Bars are reported at 880@890, and silver may be quoted at 1½@2 ₱ cent. premium for average grades. Higher rates also prevail for Exchange. Currency and Bills on the Atlantic cities are offered at 38@40 ₱ cent. premium on gold. Sales of Telegraphic Transfers have been effected at 5 ₱ cent., but the closing rate is about 4 ₱ cent. premium. Sight drafts, payable in coin, rule at 2 ₱ cent. premium. Sterling Exchange for best bankers' bills, may be quoted at 48¼d.

Legal Tender Notes are dull and inactive, and small sales were made this week within a range of 74⅝@73c, closing at 72½ bid. Telegraphic advices to a leading banking institution in this city, state that the shipment of specie from New York, for the three weeks ending June 2d, amounted to $29,000,000, The latest quotation for gold is about 147.

Nearly all Mining Shares rallied materially early in the week, but since then less strength has been exhibited, and the market closes dull and inactive for most stocks. Advices from leading claims are for the most part favorable, and the financial condition of others is better than it has been at any time since the beginning of the year.

Crown Point was sold at $990@$980, but is now inquired for at $1,020 bid, $1,100 asked. The total yield of bullion for the year ending May 1st, was $689,191.37, from 18,259½ tons of ore—an average of $37.73 per ton. The cost of mining this ore has been $8.97 per ton, and the expense attending the reduction of 8,896 tons, at outside mills, was $15.27 per ton. At present about 100 tons are hoisted to the surface daily, and the west stratum, 45 feet from the main lode, is said to show some improvement. The actual receipts of bullion last month were $109,500, and a dividend of $80 per foot will be declared to-day.

Savage fell from $860 to $800, rallied to $850, and closed at $850. During the week ending June 2d, 567 tons second and third class ore were extracted. No first class ore has been hoisted recently, but considerable has been taken from the stopes, and now lies waiting the completion of tunnels to afford convenient means of exit. During the month of May, 2,714 tons of ore were sent to different mills, and receipts of bullion for the same period are said to be $80,000 in excess of disbursements.

Hale & Norcross fell from $940 to $910, and closed at $990. There is no unfavorable feature to report in this mine, and the regular dividend will be declared to-day.

Gould & Curry steadily rose from $720 to $800, and closes at $715 bid, ex-dividend. During the month of May, 5,074 tons third-class ore were shipped from the mine. Of this amount 3,340 tons were crushed at the company's mill. After the payment of a dividend of $80 per foot, the company have on actual surplus at their credit of $34,000.

Yellow Jacket has been actively dealt in, and some 300 feet were sold, steadily advancing from $540 to $700, then declining to $585, and closing at $650@660. Receipts of bullion last month amounted to $130,366.24; other receipts were $13,760.36, and the balance at the credit of the company, May 1st, was $5,338.02, making a total of $149,464.62. The disbursements for the same period amounted to $124,003.11, leaving a balance on hand, June 1st, of $25,461.51, in which is embraced a lot of wood on hand costing $15,164. The cost of crushing 2,113 tons of ore at Yellow Jacket mill was $11.42½ per ton. Latest advices from the mine are thought to be favorable, and the ore is said to be improving as raised upon.

Ophir receded from $305 to $285, advanced to $327, dropped to $290, and closed at $300. In the lower level, ore is still found in running south above the fifth to the eighth floor. How far south this body extends, or high up, cannot at present be determined.

Chollar-Potosi has been in better favor, and nearly 600 feet changed hands, rising from $210 to $260, dropping to $240, rallying to $265, receding to 210, and then selling at $212½@$217½. The Piute station presents no change, and ore in the stope over head of incline has almost given out. In running west from the Bajazette ground some ore has been found, but in raising up, the old works have been broken into without finding ore. The drift from first station, new shaft, is in some 460 feet, and it is thought that flattering indications have been met with. During the week ending June 1st, 630 tons were sent to custom mills.

Empire Mill and Mining was sold at $149@145 per share, and closes at $145 asked. The old shaft has been sunk to a depth of 650 feet—50 feet below the lower level. The company's two mills are being actively employed, and last month reduced 1,549 tons of ore from the upper portion of the mine. With no liabilities, a surplus of $8,000 remains on hand. Belcher rose from $150 to $190, receded to $170, and sold yesterday at $155@$150. Small sales of Alpha were made this week at $255@$250.

Imperial rose to 110, dropped to $100, rallied to $110 again, then sold at $107@$105, and was dealt in yesterday at $107@108. Receipts of bullion last month amounted to $70,000. There is no change in the Alta mine, but in the Holmes ground recent developments are more favorable.

Bullion advanced from $55 to $72, dropped to $53, and sold yesterday at $58. Overman has continued active at fluctuating rates, receding from $22 to $10, rallying to $44, (assessment delinquent), receding to $25½, and closing at about $29. Confidence was sold at $25@$18, closing at $22.

The total recorded sales of Stocks, Legal Tender Notes and Bonds, since Saturday last, amounted to $593,494.

Mining Summary.

CALIFORNIA.

Alpine County—

The Alpine *Miner* (late Monitor *Gazette*,) says: So many claims are now being worked hereabouts, that hardly an hour passes that we do not have fine ore, rich rock, splendid specimens, etc., presented for our admiration and inspection.....The drift running for the second chimney in the Morning Star, is now 180 feet from the point where the ledge was first struck, and has only about seventy feet more to run. ....The Pioneer mill is working over the tailings which accumulated from the run last year of IXL, Buckeye and Wild Yankee. We learn that the saving in quicksilver amounts to about ten dollars per ton.....Good rock is now coming out of the Carson lode, situated at the lower end of town, and supposed to be an extension of the Little Monster lode. Everything indicates a permanent vein of first-class ore....The work of cutting across the lode by the American Company, is progressing finely, the cut being in about twelve feet. Several strata of fine looking ore have been discovered. ....In the George Law, two shifts are pushed ahead the work night and day, and having "picking rock" they are getting underground and toward the ledge very rapidly. They are now in over 240 feet....The Good Hope Gold and Silver Mining Company has, under the enabling act of 1864, removed its office from San Francisco to Markleeville....The Mountain Company No. 1, continue to push work, and now have their tunnel in over eight hundred feet. The new furnace for ventilating is a perfect success....Buckeye, No. 1, has been leased to an Eastern company for six years; the Buckeye company to receive thirty per cent. of the net proceeds....Buckeye, No. 2, is busily engaged in timbering and preparing a dump for ore....The Silver Mountain company are running alongside their ledge, which will be cut after going twenty-five feet further. ....Work will soon be resumed by the Lady Franklin company, on the same lode of the Buckeye, No. 2....The Pittsburg company are driving their work in good style....Work is temporarily suspended on the Rippon company's claim.

Calaveras County—

The *Chronicle* of June 2d says: We learn that two of the richest quartz leads ever struck in this county were discovered at Railroad Flat one day last week. We have not heard the particulars in regard to the width, etc., but our informant tells us that the surface rock is perfectly "lousy" with gold. Messrs. Post and Parks are the fortunate locators....We learn that Mr. Depew, who owns the fine mill in Spring Gulch, which he erected for the purpose of crushing the dirt from his tunnel claim, has procured the machinery necessary for quartz crushing, and is now prepared to do custom work. We understand he has already taken a contract to crush one thousand tons of rock for Lamphear & Co.

Fresno County—

The Mariposa *Gazette* of June 2d says: We have been shown some beautiful specimens of pure native copper, taken from the Bachman vein in Fresno county, at a depth of one hundred and fifty feet. It is found in thin layers, imbedded in the ore. Similar specimens have recently been found in the Washington vein in the same county, near Bachman....The New Idria Quicksilver mine is now producing five hundred flasks (thirty-eight thousand two hundred and fifty pounds) of quicksilver per month. This metal is all hauled to San Jose by teams, a distance of about one hundred and thirty miles.

Mariposa County—

The *Gazette* says: A rich specimen of gold bearing quartz from Snow & Co's vein, has been presented us. The vein is located near Sebastopol... Correspondent same at Buchanan Hollow, says: This morning two wagons left here for the San Joaquin, with four tons of smelted copper. The point on the river where they ship the ore and land the goods is only about thirty miles from here. Steamers of seventy and eighty tons burden can run up there regularly at this season, and boats of lighter draft can make the trip at any season....To-day, I visited the Buchanan vein, in company with Mr. Haskell, one of the proprietors....The furnace is capable of smelting about twenty tons of ore per day. The vein, or veins, for there are several of them running parallel with each other, appear to be all converging to a common center, and it is thought that they will all unite in one vein. The ore changes, as the depth increases, from carbonates to sulphurets, and the latter will probably be the character of the vein at the depth of 150 or 200 feet.

Monterey County—

A marble quarry has recently been discovered near Carmelo, and preparations are making to work it.

Nevada County—

The *National* has these items: The Kennebec company, Birchville, cleaned up after fifteen days run, $3,315....A ledge, supposed to be a very rich one, was struck by Tom Cloonan, on Daisy Hill, last Saturday. The ledge is eighteen inches thick, at a depth of eight feet. Free gold and sulphurets in abundance can be seen in the rock. It prospects at the rate of one hundred and fifty dollars to the ton. Quite an excitement exists in consequence of this discovery.....Two hundred more dwellings could be let in less than a week's time, if they were only to be had.... Brown & Brother, near You Bet, are said to be making three hundred dollars a day with their mill, crushing blue cement.

From the *Gazette* we gather the following: The work of putting up the machinery for the hoisting and pumping works on the Barrington mine is progressing rapidly. The engine will probably be ready to start on Tuesday or Wednesday next....A miners' meeting had been called at You Bet, to take into consideration the propriety of action in regard to the mineral lands in connection with the railroad grant....We understand their plan is to make out a large number of affidavits, showing that the entire township of Little York is mineral land, and file these affidavits with the Register of the Land Office in Marysville.... There has never been a time within the past ten years when the general prospects of this country were more flattering than at present ....The yield of the placer mines, though less than in early days, is considerably in excess of what it was three or four years ago, while the yield of the quartz mines has been steadily increasing, and this increase bids fair to be permanent....The Eagle company, organized at Hartford, Connecticut, for mining purposes, and incorporated under a special act of the Legislature of that State, is now commencing operations in Nevada county. The California claim, owned by the company, is now being opened. Steam hoisting and pumping works of the most approved character are being erected....The owners of the Deadwood mine, near the Oriental mill, have been engaged for some weeks in erecting works for hoisting and pumping. These are nearly completed, and they will commence operations some time this week....John Young has completed arrangements for the erection of a 10-stamp quartz mill on his ledge, near Eureka. The ledge is two feet in width, and rock enough has been taken out and in sight to pay for the mill....The Grass Valley *Union* has just paid a visit to the Allison Ranch mine, and says the company are working at a depth of four hundred and seventy-five feet, incline. We were shown one thousand ounces of amalgam, the result of four days run of the batteries. The amalgam is valued at seven dollars and a half an ounce, making the nice little sum of seven thousand five hundred dollars for four days run.

Excelsior—The *Transcript* says the 1st of July will be early enough for prospectors to go to this district. During the late snow storm, about five feet of snow was added to that already on the ground at Summit City. Previous to the last storm some few spots in the district were bare. In Meadow Lake City, a short distance from the lake, the snow was above the fences....Same of June 3d, says: The warm weather of the past week is rapidly melting the snow at the Summit. The weather during the day is almost as warm as it is at this place. Large parties of emigrants from Nevada and this place are going into the district every day....A Stock Board has been organized at Meadow Lake....A correspondent of the Lyon county *Sentinel*, writing from Meadow Lake, May 25th, says: The Ohio, in Old Man Mountain, is said to be very rich in free gold, also the Grant and Mohawk. The Excelsior mine is the deepest in the district, and shows rich in free gold one hundred and thirty-five feet from the surface. There are, I am informed, about six hundred and seventy-five locations made, and if only fifty of the number are as rich as they represent all to be, it is undoubtedly a big thing, and this is *the* country.

Placer County—

The *Herald* says the cement mills at Bath and Forest Hill are a decided success, gravel is a decided success, and the renewed prosperity of that portion of the county is fixed beyond a peradventure....From the Good Friday claim was taken the other day, three-fourths of a flour sack full of rock, which yielded $1,400....The *Stars and Stripes* says: Some specimens of float rock, picked up on Anthony Flat, below Newcastle, are exceedingly rich in small, free gold. Parties are in search of the ledge from which it came....We have been presented with a sample of rock from the Poland lead—located about a mile and a half southwest of town—which shows considerable free gold. The ledge on which the Poland company claim 1,600 feet, is about three feet in width, and shows free gold in most of the surface rock. The company have gone to work to open their ledge.

San Joaquin County—

A correspondent of the Nevada *Gazette* says Mr. L. Cook has discovered an oil spring on Mokelumne river, in San Joaquin county, near Amador and Calaveras. It exudes through the pores of soft blue rock, and floats on the water, presenting precisely the same appearance that kerosene oil does when poured upon water. All who have seen it pronounce it real petroleum. Mr. Cook expects to prospect it thoroughly.

Santa Cruz County—

The *Sentinel* says that the Petroleum company, in that place, is driving ahead in fine style. Four new retorts are now at the landing, and they will shortly be delivered at the works.

Shasta County—

The *Courier* of June 2d, has these items: The Kellinger are in with their lower tunnel 931 feet, and are in six feet on what appears to be a lead that is 26 feet wide in the upper tunnel, and assays $50 per ton.....We learn that the Chicago have sent an agent below with a quantity of the rock to show its wealth, and to buy a mill and machinery, if satisfactory terms can be made.....The erection of the flume from the Clear Creek ditch on to the divide, between Oregon and Olney gulches, is progressing, and will soon be completed..... Rector & Wright, whose discovery on Ross' Gulch, on the east side of the river, we noticed last week, are working with the most flattering success.....Steady work is being done on the Bunker Hill claim, with fair remuneration for capital and labor invested, but of late no rich pockets have been struck.....Accounts continue to come from South Fork district of a nature equally flattering and startling with those of the first discovery.....The Chinese have been admitted into the Spring Creek district, and large numbers are working there upon ground that pays two dollars per day .....Correspondence of same from Whiskytown says: The Pitchpine Co., are running a tunnel on their ledge. There is a company at work on the head of Mule Canyon on a quartz lode. The rock is decomposed..... Williams & Co. have completed their aqueduct, and it works splendidly. This company, under instructions from Messrs. Hallidie & Co., of San Francisco, have made a wire cable and suspended to it an iron pipe, seven inches in diameter, conveying the waters of Brandy Creek to their mine on Sawmill Flat..... Nate Farrington took his mill dam out last winter, and has formed a company to work the ground, which they suppose is rich. I have heard of a claim on it being sold as high as $500.

Sierra County—

Goodyear's Bar correspondence of the *Messenger* says the miners were anxiously waiting for the completion of the Water Co's flume and dam. Meanwhile, work was suspended.

Siskiyou County—

The Yreka *Union* of June 2d, says: Henry Wright, of Oro Fino, took out $8,000 in six weeks at that place.

Tulare County—

The Visalia *Delta's* Havilah correspondent says: Mining still goes on briskly, and all the mills which are working, with one exception, are paying well. The Pi Ute district grows in importance every day, and will doubtless prove exceedingly rich. New and rich lodes of copper, copper and gold, and copper and silver, are being brought to light, and some of the rock is so rich in these metals as to be malleable.

Yuba County—

The Marysville *Appeal* has these items: Specimens of rich rock from Templar No. 2, were brought down from Indiana ranch yesterday. We saw a small piece of rock; perhaps four ounces in weight, which, after being pulverized, showed about ten or twelve cents in gold....A small number of shares in the Pennsylvania company changed hands yesterday at $40 per share. The mill will begin crushing to-morrow on the new rock and run ten days before cleaning up....A year ago shares in the Jefferson mine, at Brown's Valley, could have been bought for $5. One gentleman owning 100 feet offered the lot at $1,000. This stock is now paying $10 per share per month, or $1,000, and the stock is now held at $300 per foot. The Pennsylvania stock has gone through similar mutations. It was sold a year and a half ago at $40 per foot. It then receded to $2 and $3 per foot. One gentleman gave away about 150 feet. To day $30 and $35 per foot is offered for it, and no sellers. It is worth $100 or nothing....Without particular reference to the Brown's Valley ledges, we predict that in less than two years the foothills of Yuba county will become as celebrated for paying quartz ledges as those of Nevada county. The county above Brown's Valley, is interlarded with hundreds of ledges, some of them scratched over, and others untouched. We know some of them are rich, and believe that their development will prove them valuable. There is one ledge we have in particular view, which ought not to lie idle for want of capital. A shaft has been sunk on this ledge seventeen feet deep, and several tons of quartz crushed, which paid $20 in gold and $20 in silver. If this ledge was in the vicinity of Virginia City or Gold Hill, it would be at once pounced upon by speculators, and stock held at an enormous figure.

NEVADA.

Washoe—

The Carson *Appeal* says Mr. Ash, who for some time past has been engaged in prospecting some quartz leads in the hills west of this city, got a return on Tuesday from one hundred pounds of quartz which he had worked at the Merrimac mill. The result shows an assay of $20.63 per ton. Dr. Gabbs had some rock submitted to a like process, and gets a return of $14 per ton....At the North Overman mine, Gold Hill, John Blight, was killed by falling into the shaft, 430 feet deep....Extensive improvements are being made at the Rhode Island mill.

Reese River—

From the *Reveille* we gather the following: E. S. Davis and Russell Scott, while taking a walk over the hills in North Twin River district, found, cropping above the ground, over which perhaps 500 men had passed, a huge ledge, ten feet thick, of richest silver-bearing quartz, which they located under the name of "Canada." We saw the assay, made to-day by J. S. Currie, which shows the splendid figures of $5,705.14 per ton. Same paper gives further particulars in the next day's issue, confirmatory of the above; and adds: The same parties had previously discovered and located in the vicinity three ledges, which they named the Flora Temple, Potosi, and Enterprise. The first named is about 150 feet east of the Buckeye mine, and is five feet thick, regular and well defined. The Potosi lies two hundred feet west of the Canada, and has a vein seven feet thick. The Enterprise lies on the same side of Summit Cañon as the Canada, and half a mile west of it. The ledge is apparently twelve feet thick, but its walls are undeveloped. ....In the Confidence, located by same parties in the South Twin River district, and which is believed, from its croppings, to be twenty feet thick, the ore obtained from the surface yielded by assay $113 per ton; but later developments in the croppings, which have been penetrated to the depth of seven feet, exhibit greatly superior ore, in which myriad flecks of native silver are easily discernible by the eye. ....In the Old Colony mine, about ten days ago, at the depth of 270 feet, the ledge suddenly widened to the handsome proportions of eighteen inches, displaying a mass of fine-grained, dark sulphuret ore, interspersed with occasional delicate tints of ruby. The gangue is pure quartz, holding largely silver, iron, sulphur and antimony....Two bars of bullion obtained from chloride ore of the Roanoke mine, were valued at $2,017 41, and were the product of six and a half tons of ore, which yielded at the rate of over $310 per ton.... The Nye county *News* has these items: The Succor mill, which has been running for some time past, closed down a few days since, in order to give the miners an opportunity to get ahead with ore....We are informed that the famous Buckeye claim, of North Twin River district, has been sold to the Sterling Mill company, whose fine large mill was erected at Kingston, Bunker Hill District, the past season....The Pleaides boys struck it richer than ever on Thursday last, while working in their mine, and are now getting out ore which it is calculated will pay $1,200 to the ton.... The Franklin has about seventy-five tons out. ....The Storm King about ten....The Atlantic and Pacific company will next week have a large force at work.

Humboldt County—

The *Register* of May 19th has these items: During two weeks past several parties have been making discovery, or re-location, rather, of very promising auriferous quartz veins in the range which terminates, some thirty miles down the valley, in Table Mountain....The Ruby Silver company, owning in Pine Forest District, thirty miles above Black Rock, has an excellent ledge. The entire ledge is infused with ore, which works, without assorting thirty dollars in silver, and shows by assay fifty per cent. copper.... Two assays made this week of quartz from the Silver Bullion claim show $140 and $198 per ton....The American Basin company has been considerably encouraged this week. At a distance of 600 feet in, and at a perpendicular depth of 350 feet below the croppings, a small "feeder" was struck, composed of the finest quality of Shebn ore.... A small lot of quartz from the Volunteer was worked this week at Holt's mill. It turned out a good-sized brick of crude bullion, in which gold shows plentifully.

Black Rock—

The Chico *Courant* says these mines are increasing in richness as they are developed to a greater depth, and considerable excitement exists regarding them, induced by the reports of their fabulous wealth. Assays have been made ranging from $1,000 to $10,000 per ton. They are situated directly on the Chico and Idaho stage route, about half way between Chico and Owyhee.

Pahranagat--

The Salt Lake *Vedette* of May 31st says: A friend recently from Pharanagat represents that miners are arriving daily, and much energy is manifested in the development of ledges there.

IDAHO.

The *World* of May 19th has these items: The warm weather this week has caused a rise in the waters of all the mountain streams. Moore's creek became unmanageable, and has done much damage among the claims....We understand that work is about to cease upon a number of the hill claims opposite town. It is caused by the bed-rock pitching into the hill, and the claims are becoming too flat to carry off the tailings. The proprietors will go back and lower the drains. The claims are said to pay well as far as work has been done in the hill.....A correspondent of the same paper at Florence says: "The days of rich placer strikes have passed, although all who can obtain a supply of water during the mining season are still well repaid for their labor, as is shown by the fact that wages for the last two seasons have been six dollars per day....The Meadow Creek quartz district, which has its center about six miles from Florence, on the trail to Warren's diggings, and extending from Florence Basin to four miles south of Salmon River, and up and down each side of the river several miles, abounds in silver-bearing quartz ledges, and will, in the opinion of the lucky discoverers and holders of feet, in a short time rival the far-famed "Owyhee" region....The first discovery was made by the Haepser & Liddell company, who located fourteen hundred feet. Extensions upon the east and west have been taken up. The ledge has been traced upon the surface, and good ore taken from it for eleven hundred feet easterly, and four thousand feet westerly from the discovery claims. ....A tunnel has been run between fifty and sixty feet from the surface, and a ledge of extremely rich ore, thirty-one inches in thickness, laid open. It is believed the whole body of ore exposed in the tunnel will yield from five to eight hundred dollars per ton, and specimens of uncommon richness, showing abundance of native silver, extend through the ledge as far as penetrated....The Daniel Boone, about one half mile south of the Haepser & Liddle, and running parallel with it, has been traced on the surface over two thousand feet, and prospects rich in silver ore. One company, the Californin, have run their tunnel twenty-five feet, and are progressing finely.

Owyhee—

The *Avalanche* of May 12th says: Silver and Ruby cities are to be condensed into one. The name will probably be *Owyhee*....The Ore Fino company is now working sixty hands, and supplying sixty stamps with ore....The Silver Legion—owned by the Cosmos company—has been worked all winter. The melting snows has made water troublesome, but it is nearly free now. A whim has been erected for hoisting ore and water, lowering timbers, etc., into the mine. The discovery ground of the Legion has passed into the Cosmos company's possession, at a large price, and it will be worked from two shafts. Considerable of the ore shows free metal. At the present works—first South Extension—there must be fully three hundred tons of pay ore taken out. ....The Allison mine is being worked with a large force of men. Three shifts are employed. The mine is being worked in the old tunnel and shaft, and a new tunnel is started two hundred feet south, to strike the ledge at a different place.

It is said that 125 tons of ore from the celebrated Poorman mine, at Owyheo, worked $300,000, or at the rate of $2,400 per ton.—*Reese River Reveille.*

MONTANA.

The *Post* of May 19th has these items: The Mesler lode is soon to have a 24-stamp mill, now on the way....Miles Kavanagh sold his interest in the I.X.L. lode for $25,000.... The weather has been delightful for a week. ....The first pack-train from the west had got in; they were thirty-six days from Idaho City (515 miles) by the Malade trail....The claims in Alder Gulch were flooded by the rapid melting of the snow....A 50-stamp mill is now on the road to Mill Creek from the States....A company of eight men are now engaged on a ditch which will supply water for the sluicing of about 1,200 acres of dry diggings, lying between Brown's Gulch and Silver Bow Creek. There is a fine prospect obtainable at the very surface of the ground. All the company, and those outsiders who have prospected the ground, feel sure that it will yield from twenty-five to thirty-five dollars per day to the hand....Bill Fairweather has struck it again. His hydraulics at Wisconsin Gulch are paying. The first clean-up was one hundred ounces to a fortnight's run; the second time the weather was favorable and all in working trim, therefore, in four days, one hundred and fifty-six ounces were washed out....Mallory's Bar is opening finely, and bids very fair for the future. On the rims, in the main gulch below, they are clearing from one to two ounces per day to the man....Uncle Johnson's Gulch, and the bars on White's Gulch, are yielding a rich harvest....New York Gulch is still attracting the attention of a large number of miners. It is no trouble to take out $100 to fifty square feet of bed rock....In Greenhorn Gulch as high as $46 to the pan has been taken out....The great quartz excitement near and beyond Trout Creek continues....Correspondence of same from Bannock says: The Bannock Ditch and Mining company are operating very successfully on Nugget Hill. This company are the proprietors of a ditch some twenty miles in length, which carries about six hundred inches of water....In addition to the rich placers of this region there are numerous and well defined quartz lodes, both gold and silver-bearing. No. 12, on the Dacotah, is a very fine vein. They have machinery on the way which will arrive during the summer.... The McLean and the Silver Mountain companies intend to erect mills in Rattlesnake district. ....The Huron, which was sold for $100,000, has a mill *en route* from Atchison....Messrs. McDonald, Clark, Gridley, Sullivan, Thompson and Governor Edgerton, have made large sales of property. It is reported that Mr. Sullivan has sold his own property for $80,000, Governor Edgerton for $25,000, and Gridley for $15,000....Mr. Reem writes that millions will be spent here this season, for property, furnaces and mills. Mr. R. is one of our best prospectors, and he and his partner (Mr. Bender) sold $60,000 worth of property, last fall.... Messrs. Bender, Estler, Godfrey and others, have formed the most extensive company for mining that has ever been organized in the East for this district....Col. Wood is still going down on No. 12 Dacotah, with the most satisfactory results....A friend just over from Diamond City informs us that seventeen pounds of gold were cleaned up, from one run, on the bar, below town, on the first of the week.... During the past week the work of mining has gone briskly on, in Main street, the business part of town, seriously interfering with travel and business....The pack train of Peter Riggs, consisting of twenty-four cayuse horses, all loaded with costly merchandise consigned to himself at Blackfoot City, has not been heard from since it left Walla Walla last fall.... Quite an excitement exists in relation to a new discovery, said to have been made in the early part of the week on the head waters of Big Rock creek, a tributary of Hell Gate river. We are informed that the prospecting party obtained as high as five dollars to the pan.

OREGON.

The Vancouver mines are still favorably spoken of. The *Register* says another ledge has been struck, a mile or more northeast of Vancouver ledge, and adds: "The confidence of holders increases, and they feel satisfied of a permanently rich thing."....The Columbia river at the Dalles, had been rising rapidly. At last accounts it had receded one foot; and all fears of high water this season were passed. So says the *Mountaineer*....Correspondence of same paper from Canyon City under date of May 11th, says: "The most important event of the week in the John Day mines, has been the advent of a small party of Chinese miners. ....The character of the diggings here, and the declining prospects of a considerable portion of the mines, has at length induced claim holders to turn their attention to the introduction of cheaper and more abundant labor, and it is probable that the result will prove the wisdom of the movement. The bed of Canyon creek, the flats at the mouth of the creek, and the newly discovered prospects on the main John Day river, promise well to employ thousands of laborers for years to come; that is to say, of that class who can and will work for a compensation of from $3 to $5 a day....It is to be hoped that by another year each honest miner in this country will have his dozen *coolies* delving in his claims. There is an eminent fitness in this relation of the races. ... On the south side of the main John Day, nine or ten miles below Canyon creek, is the cinnabar lead, of which so much has been said. A party has been engaged in sinking upon it, and the fact is established that it is a true lead. The ore rapidly increases in richness as they go down....Correspondence of same from Susanville, Grant county, says: "Our miners have for the past six or eight weeks, been constantly at work....One company near the mouth of Elk creek, will, before water fails, succeed in stripping their entire claims. A smaller quantity of water will suffice to clean up the bed rock where now all their pay lies, and it is known to be rich. They obtained enough from a small space of bed-rock to defray their expenses until they shall have completed their ground sluicing operations."....On the slope of the hill below the Elk Creek quartz ledge, four men in a run of two weeks, cleaned up seventy ounces of gold, as fine as that coming from a battery....Mr. McQuaid, proprietor of the Pacific quartz ledge, has made an opening in the side of the hill to the depth of fifteen feet, showing a well defined ledge, from three to four feet wide....Fred. Marhale discovered another ledge in March, which he christened Tyhee—it being one of the largest lodes in the district. A small piece of the cropping of this ledge, pounded fine on a flat rock and panned out in the usual way, yielded a fabulous prospect. An effort will be made soon to develop this ledge....The Golden Eagle are about to put an arastra at work.... A 20-stamp mill, with the necessary appliances for saving the gold, could now get all the work it could do at very reasonable prices....Mr. Milliken, in Elk creek, a few hundred yards above the town, brought in a nugget of gold, weighing, at $16 per ounce, $203. Mr. Hardy, on Deep creek, obtained from his claim last week, a piece worth at the same rate, $150. ....Same paper says in regard to the cinnabar already referred to: At the time of the discovery of the cinnabar lead on John Day river, a gentleman residing in Canyon City forwarded some pieces of the croppings to San Francisco for assay. The assayer's certificate attests that the ore yielded at the rate of $52.22 in gold, $3.50 in silver, and contained 14¾ per cent. of quicksilver.

COLORADO.

The *Journal* gives the following as the result of the last week's runs in five of the principal mills: Briggs company, 121 oz.; Black Hawk, 171; Narragansett, 130; John Sensenderfer, 140; Gunnel, 115½—in all 677½ ounces, which will leave for the East this week....The *Register* says Major Kinney, manager of the Black Hawk gold mining company's works, brought up town yesterday two hundred and fifty-six ounces handsome retort, worth about five thousand two hundred dollars, the result of five or six days run of a stamp mill on sixteen cords of ore....The *News* says: Present indications are, that not so much prospecting for new lodes will be done this season as in the past, as many of the companies propose to put in labor and capital in the development of lodes already claimed. This is as it should be, for the country needs more mining and less skimming over the surface.

UTAH.

The *Vedette* protests against the proposed division of the Territory, inasmuch as the principal mining districts would thereby be transferred to the State of Nevada. It says: "We have discovered the mines and are entitled to the benefits they will naturally afford, socially and politically, when developed. We hold now in our hands the key of the silver mines of Utah,—leave the key with us, and in a short time we will revolutionize the political and ecclesiastical systems now crushing this people."

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San Francisco:
Saturday Morning, June 9, 1866.

PETROLEUM AS AN ANÆSTHETIC.—According to the Boston *Medical and Surgical Journal*, petroleum naphtha has recently been brought into successful use as an anæsthetic. This is one of the most volatile liquids known, boiling at 70 degrees Fahrenheit. It has been proven that the mercury can be depressed by the evaporating qualities of this liquid to 19 degrees below zero, while through the agency of ether vapor the greatest cold produced is only six degrees below zero. It is thought that even a lower temperature than seven degrees can be produced by naphtha. Ether boils at about ninety-six degrees.

The naphtha used in the experiments made was manufactured expressly for the purpose, and it is proposed to give the name "rhigolene," from the Greek word signifying extreme cold, to this new anæsthetic. It is claimed that freezing by rhigolene is far more sure than by ether, inasmuch as the latter, requiring so high a degree of heat for boiling, often fails to produce an adequate degree of cold. It is also said that the new product is more convenient and more easily handled than any freezing mixture hitherto employed, and must eventually come into general use for small operations or local anæsthesia. When applied to the skin the first degree of congelation is evanescent; but if the application be too long continued there is danger of frost bite and consequent mortification. Dr. Bigelow, as early as 1861, successfully applied a product from kerosene as an anæsthetic by inhalation.

OIL WORKS NEAR SANTA CRUZ.—The Santa Cruz *Sentinel* says that the Petroleum oil company of that place, is now driving ahead finely under the superintendence of N. C. Walton. Four new retorts have just been received and will shortly be delivered at the works; they are of large capacity, with all the new improvements for opening and cleaning. Each weighs five thousand pounds; they are far superior to the old ones now in use. The company's team goes to town about three times a week, loaded with some two hundred gallons. These works, says the *Sentinel*, are about eight miles from Santa Cruz, and it is a great pity that the escaping gas cannot be conveyed to this place. There is enough constantly escaping to light the whole town. There are two large burners at the works, and every night the whole cañon is lighted almost as bright as mid-day. Such enterprises well deserves the success which they are now meeting.

MAP OF AMADOR.—We have received a copy of a beautifully executed and most full and useful map of the county of Amador, drawn from actual surveye by J. M. Griffith, County Surveyor, and approved by the Board of Supervisors. The map is drawn on a scale of three-quarters of an inch to the mile. We believe it has been the design of the publishers to lay down upon the map the locality of every mine and its name, together with the boundaries and name of the owner of every ranch. The general topography of the county is also very distinctly given. This is one of the most complete county maps which we have ever seen of any county outside of San Francisco, and is a credit to the publishers and the county which has had the energy and enterprise to encourage such a work to a successful issue. Every mining county in the State needs just such a map. It may be procured of H. H. Bancroft & Co. of this city.

THE PROPOSED TEACHERS' EXCURSION to the mountains will probably take place on Monday next.

IMPORTANT DISCOVERY—NITRO-GLYCERINE RENDERED SAFE.

Mr. Nobel, the Swedish engineer, and a brother of the gentleman who first introduced the use of nitro-glycerine as a blasting agent, has recently made the announcement of a discovery, which, if it should be fully realized and proved to be practical, must be looked upon as bigbly opportune and important.

It appears that since the terrible explosions in this city and at Aspinwall, Mr. Nobel has made the important discovery that nitro-glycerine may be rendered entirely inexplosive, *by adding to it about half its own bulk of the spirits of wood*—a cheap sort of alcohol distilled from woody fibre. The mixture so made is said to be absolutely inexplosive, and no more inflammable than camphene, kerosene, etc. In other words, be renders the oil entirely inexplosive for the purpose of transportation, with the capacity of being restored to its full power wherever wanted for use. Whenever it is desired to restore the explosive properties of the oil, it is only necessary to add to the compound a small quantity of water, which immediately absorbs the spirits, leaving the pure nito-glycerine to sink to the bottom of the vessel, from which it may be drawn by a faucet or syphon, in a condition ready for immediate use.

In order to satisfy the public of the genuineness of this discovery, Mr. Nobel invited some twenty scientific and practical gentlemen to accompany him to a rocky hill, just outside of the city of New York, where some heavy blasting operations were being conducted. After performing several experiments, illustrative of the character of the oil in its usual state for use, Mr. Nobel placed some of the oil, mixed with the spirit of wood, in a can, and applied the fuse in the usual way, but it refused to explode. Water was then added to the same mixture, when the oil was separated at once placed in another can and readily exploded.

Mr. Nobel then undertook to show how the explosions in Greenwich street and at San Francisco occurred. His theory is that in each of these cases the oil was contained in glass vessels, which were packed in boxes filled with sawdust. By some means a portion of the oil leaked out and mingled with the sawdust, forming a highly inflammable compound. This took fire in some manner—the burning stump of a cigar, or a spark caused by the heads of two nails coming in contact, being sufficient to ignite it, and the great heat caused by its combustion was sufficient to cause the explosion of the oil in the case. In order to illustrate this he filled a small can with the oil and packed it in a box filled with sawdust, in which he had previously poured some of the oil. On being touched with a lighted cigar, the sawdust took fire and burned with a fierce flame for a moment or two, when the oil in the inclosed can exploded with great force, utterly demolishing box and can so that no fragment of either could be discovered. Mr. Nobel claims that if the oil had been packed in sand or powdered shells, or any incombustible substance, that no explosion could have occurred, as the oil itself has no tendency to generate heat, and no temperature to which it could be subjected under ordinary circumstances, would be sufficient to ignite it.

We have condensed the above particulars from the New York *Tribune*, which paper says that the entire series of experiments seemed to prove, as fully as a single exhibition could do, the correctness of Mr. Nobel's views, and were entirely satisfactory to all who witnessed them.

The "spirits of wood" to which the *Tribune* refers, is evidently the substance described in the following section, on page 453 of Stockhardt's Principles of Chemistry:

"When pyroligneous acid is very slowly distilled, a spirituous, volatile liquid, very similar to brandy, first passes over, which is called crude *pyroxilic spirit*. The chief component of this fluid is a substance which, in its properties and changes, has great similarity to alcohol, or spirits of wine, though its constitution is different. On account of this similarity, it is called pyroxilic spirit (*hydrated oxide of methyle*).

STATE NORMAL SCHOOL—CLOSING EXERCISES.

The annual examination of the State Normal School, took place at Lincoln Hall on Thursday last. The exercises were of a very pleasing character, and were witnessed by a large number of persons. Some of the compositions of the graduating class evinced no ordinary degree of talent. The graduating class consists of twenty-two in number—five males and seventeen females.

An incident not laid down in the programme occurred at the close of the exercises, which consisted of the presentation of plate to Prof. Minns, consisting of an elegant silver goblet and a silver fruit dish, the gift of the pupils of the school. Prof. Minns responded to the compliment with much feeling, and in his usual happy manner.

An address was then delivered to the graduates by the Rev. Mr. Stebbins, at the close of which Professor Minns was again surprised by another presentation, in the shape of a costly gold watch and chain, the gift of the teachers in the public schools of this city. The contributors to this present numbered over one hundred persons, each teacher being anxious to testify in some way, however trifling, their esteem and admiration for the gentleman who has done so much for the cause of education here, and whose social qualities are the theme of universal praise among his friends and acquaintances. The presentation speech was made by State Superintendent Swett, and elicited a beautiful response by Prof. Minns, after which the exercises closed with chanting the Lord's Prayer.

A complimentary, social re-union was given at the same place last evening, by the pupils and graduates of the school, as a farewell testimony of respect and regard for the Principal of the school, Professor Minns, who is about to leave the State on a short visit to his friends at the East.

We regret to state that the only Normal School in California is without anything which can be called a library or any philosophical apparatus. For the latter the school is dependent upon such instruments as can be borrowed from other schools, or from individuals. Professor Minns has done much in this direction from his private apparatus. The building accommodations are also very meager and totally inadequate to the wants of such a school. The Normal School is exclusively a State Institution, and looks to the State alone for assistance. It is a shame that it should be thus neglected. It should be liberally aided and fostered by the State, as the great heart from which should emanate the very life blood of our educational system. It is a burning shame that such an Institution should be suffered to linger and struggle along, with a bare subsistence.

MINING IN THE EAST.—The New York *Tribune* says: "They have been finding gold in the White Mountains of New Hampshire and the Green Mountains of Vermont. In Lisbon, N. H., they are said to have a rocky peak which yields to each ton of rock twenty-eight dollars in plumbago, and twenty dollars in silver; while a vein of white quartz in that town has yielded (a little over) $867 per ton in gold and $150 in silver. One batch of samples yielded $1,500 per ton. There are similar reports from various parts of Canada and Nova Scotia.

WELL ATTENDED.—The lecture of Mr. Strong on the volcanoes of Hawaiian Islands, was well attended by a large and appreciative audience. The speaker did the fullest justice to the subject, which the time allotted to a single lecture would admit of. There are probably no volcanoes on the globe, whose phenomena may be more profitably studied and examined, than those upon the Hawaiian Islands. Their proximity to the coast of California, and the frequent mention made of them by travelers from this State, has of late elicited an unusual degree of interest, and excited a very general desire to hear and learn more about these most wonderful among the grand phenomena of Nature.

LIST OF OFFICERS OF CORPORATIONS AND MINING COMPANIES.

[PUBLISHED IN THE FIRST ISSUE OF EACH MONTH.]

[Below we give the date of recent meetings held in this city, and the names of officers chosen or appointed. Every bona fide company is invited to send us the result of their election, to be thus put on record, gratuitously, with any other facts of general interest.]

BACON MILL & MINING CO.—June 5th. Trustees: Chas. L. Low, A. K. P. Harmon, Chas. K. Grimm, A. E. Head, Lewis Gerstle. President, A. K. P. Harmon; Secretary, W. E. Dean; Treasurer, Jno. Sime; Superintendent, J. B. Low.

CROWN POINT G. & S. M. CO.—June 4th. Trustees: A. H. Barker, Isaac Glazier, Geo. F. Grimes, B. F. Sherwood, H. P. Blanchard. President, A. H. Barker; Secretary, J. H. Jones; Superintendent, C. C. Batterman.

KEYSTONE MINING CO.—May 2d. Trustees: Wm. A. Dana, C. T. Meader, O. P. Sutton, R. B. Parker, Thomas McCarty. President, W. A. Dana; Secretary, O. P. Sutton; Superintendent, H. H. Sheldon.

SAN MARCIAL S. M. CO.—March 21st. Trustees: Henry Brickwedel, James Branham, Wm. Glaskin. President, Henry Brickwedel; Secretary, R. N. Van Brant; Treasurer, Sampson Tams; Superintendent, F. A. Prescott.

RECENT INCORPORATIONS.

COLUMBIA COPPER M. CO.—Little New York, Nevada county. Capital stock, $110,000; 1,100 shares; $100 per share. Trustees—E. C. McComb, J. L. Sanford, D. M. McCraith, A. J. Downer, Isaac Swain. May 2d.

RATTLESNAKE G. AND S. M. CO.—Spring Valley District, Yuba county. Capital stock, $240,000; 2,400 shares; $100 per share. Trustees—C. J. Janson, A. N. Huard, W. B. Agard, Albert Miller and Henry East. June 6th.

CONTRIBUTED FOR OUR CABINET.

Under this heading we shall continue to mention and describe, according to merit, such specimens of ores, minerals, fossils, curiosities, etc., as may be presented or forwarded to us by mail or express prepaid. Each article will be numbered and placed in our cabinet, and recorded with the name of the donor, and the claim or location from whence it came.

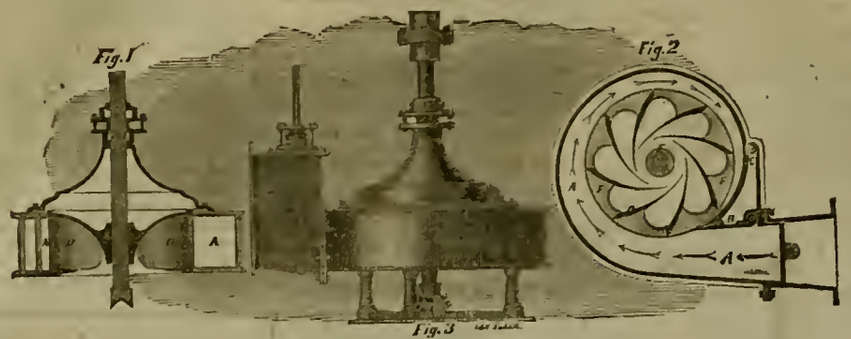
MR. SCRANTON, of Gold Run, Placer county, sends us a sample of antimony melted by himself from an ore of that metal, taken from a vein which he has located in Humboldt county, Nevada. This discovery is more fully described in our issue of the 2d instant.

MR. A. W. KING, who has recently returned from Mexico, has contributed for our cabinet quite a number of very fine specimens from the Concordia mining district, some sixty miles back of Mazatlan. The mines represented in this collection are the Cessandra, the Alacrans, the Arco, the Concepcion and the Napoleon. Each specimen presents quite distinct characteristics, evidently illustrative of the mine from which it is taken. Each of these mines was quite fully noticed by name, in our issue of last week. Some of the specimens are evidently very rich, chiefly in sulphurets of silver.

A VALUABLE CABINET.—We have received a call during the past week from Mr. M. J. Healy, an old resident of Dayton, Nevada, who has spent a large portion of his leisure time, during the last two or three years, in making a cabinet collection of minerals illustrative of the mineral resources of the State of Nevada and the adjoining territories to the eastward of the Sierra Nevada. We have not had the pleasure of examining this cabinet, but learn from the *Territorial Enterprise* that it constitutes one of the most extensive, varied and valuable cabinets of minerals ever brought together on the Pacific coast. This grand collection weighs several tons, and comprises from fifteen to twenty thousand different specimens. Mr. Healy leaves on the steamer of to-day for New York, taking his collection with him. He has also in course of construction a model of a stamp mill, with a grinding and an amalgamating pan, to be driven by a miniature steam engine, which will go forward by the next steamer. In order to better describe and illustrate the whole, Mr. Healy has also purchased the bound volumes of the MINING AND SCIENTIFIC PRESS for five years past.

MARINE RAILWAY.—The barque *Joaquin*, a New Grenada vessel of 600 tons, was put upon the marine railway of John G. North, at Point San Quentin, on the Potrero, last week, for repairs. This is the only marine railway in the city where steam is used to haul up vessels.

TYLER'S IMPROVED WATER WHEEL.



Power and Working Velocity, and Water required for these Wheels.

TABLE, showing the number of inches of water (miners' measurement) required to give one horse power, under heads from 3 feet to 100 feet, and the horse power of wheels of all sizes.

TABLE, showing the number of inches of water required for different sizes of wheels, from 9 inches to 48 inches in diameter.

TABLE, showing the number of revolutions per minute of different sized wheels, from 9 in. to 48 in. in diameter.

Head in feet.	Number inches water to one horse power.	Horse power of wheel 9 inches in diameter.	Horse power of wheel 14 inches in diameter.	Horse power of wheel 18 inches in diameter.	Horse power of wheel 24 inches in diameter.	Horse power of wheel 30 inches in diameter.	Horse power of wheel 36 inches in diameter.	Horse power of wheel 48 inches in diameter.	Inches water for wheel 9 in. in diameter.	Inches water for wheel 14 in. in diameter.	Inches water for wheel 18 in. in diameter.	Inches water for wheel 24 in. in diameter.	Inches water for wheel 30 in. in diameter.	Inches water for wheel 36 in. in diameter.	Inches water for wheel 48 in. in diameter.	Revolutions of wheel 9 inches in diameter.	Revolutions of wheel 14 inches in diameter.	Revolutions of wheel 18 inches in diameter.	Revolutions of wheel 24 inches in diameter.	Revolutions of wheel 30 inches in diameter.	Revolutions of wheel 36 inches in diameter.	Revolutions of wheel 48 inches in diameter.	Revs. of wh'l 40 in. in diam.
100	3.25	15.74	50.16	87.76	209.60	.....	.....	.....	60.02	193.10	335.67	.....	.....	.....	.....	1338	831	642	...	...	...	...	...
95	3.42	14.51	46.46	81.28	194.14	.....	.....	.....	58.34	187.00	326.78	.....	.....	.....	.....	1305	810	626	...	...	...	...	...
90	3.61	13.40	42.88	95.03	179.20	.....	.....	.....	56.92	181.70	317.92	.....	.....	.....	.....	1270	788	609	...	...	...	...	...
85	3.82	12.23	39.43	69.00	164.78	.....	.....	.....	55.02	177.42	310.50	.....	.....	.....	.....	1234	766	592	...	...	...	...	...
80	4.06	11.28	36.11	63.18	150.91	.....	.....	.....	54.00	172.88	302.46	.....	.....	.....	.....	1197	743	574	...	...	...	...	...
75	4.33	10.14	32.44	56.76	135.58	.....	.....	.....	51.81	166.65	289.47	.....	.....	.....	.....	1159	719	556	...	...	...	...	...
70	4.64	9.19	29.40	51.44	122.86	.....	.....	.....	50.07	160.22	280.34	.....	.....	.....	.....	1120	695	527	...	...	...	...	...
65	5.00	8.28	26.49	16.34	110.69	.....	.....	.....	48.85	156.26	272.24	.....	.....	.....	.....	1079	670	518	...	...	...	...	...
60	5.41	7.29	23.32	10.80	97.46	.....	.....	.....	46.55	148.95	260.10	.....	.....	.....	.....	1037	643	497	...	...	...	...	...
55	5.90	6.36	20.34	35.59	85.01	.....	.....	.....	44.27	141.61	247.34	.....	.....	.....	.....	993	611	476	...	...	...	...	...
50	6.50	5.58	17.86	31.26	74.67	106.02	129.39	279.30	42.75	136.85	229.13	571.22	811.05	989.82	2136.63	930	595	462	349	280	231	172	...
45	7.22	4.76	15.23	26.65	63.66	90.39	110.32	238.14	41.11	131.52	226.52	541.11	768.31	937.71	2024.18	884	563	438	330	263	219	164	...
40	8.12	3.99	12.79	22.37	53.44	75.88	92.61	200.12	38.25	122.48	214.41	511.01	725.60	885.58	1913.63	835	531	414	312	249	207	154	...
35	9.28	3.12	10.31	18.04	43.08	61.19	74.68	161.21	34.07	112.62	198.08	470.63	668.50	815.87	1762.46	781	497	387	291	232	193	144	...
30	10.83	2.58	8.27	14.48	34.58	49.10	59.92	129.36	32.57	105.63	185.10	440.88	626.02	763.97	1649.33	714	454	356	266	212	177	132	...
25	13.00	1.96	6.27	10.97	26.20	37.20	45.40	98.00	29.88	95.61	167.28	400.85	569.17	694.61	1499.40	652	415	323	243	194	161	121	...
20	16.25	1.41	4.51	7.89	18.86	26.78	32.68	70.56	26.88	86.02	150.88	360.68	512.16	625 00	1349.46	585	372	287	218	173	145	108	...
18	18.05	1.19	3.83	6.71	16.03	22.76	27.78	59.97	25.66	82.62	142.58	340.63	483.66	590.25	1274.36	549	350	277	205	164	136	101	...
16	20.31	1.00	3.21	5.61	13.41	19.04	23.24	50.17	23.93	76.83	134.07	320.48	455.05	555.42	1199.06	517	328	254	193	153	128	96	...
14	23.21	.80	2.63	4.60	11.00	15.62	19.06	41.16	21.12	71.91	125.63	300.43	426.61	520.57	1124.17	482	306	238	180	143	119	90	...
12	27.08	....	2.10	3.68	8.80	12.49	15.25	32.92	.....	66.87	117.30	280.50	398.11	486.08	1049.32	448	284	221	167	133	111	83	...
10	32.50	....	1.56	2.74	6.55	9.30	11.35	24.50	.....	59.77	104.80	250.53	355.72	434.13	937.12	412	262	204	154	123	102	77	...
9	36.11	....	1.35	2.36	5.65	8.03	9.80	21.16	.....	57.57	100.30	240.12	341.27	416.50	899.30	379	240	186	141	113	94	68	...
8	40.62	....	1.15	2.01	4.82	6.83	8.35	18.03	.....	55.05	96.10	230.45	326.55	399.22	862.05	346	219	170	129	102	85	65	...
7	46.42	....	.92	1.61	3.85	5.46	6.67	14.40	.....	50.32	95.46	210.33	298.31	364.42	804.26	....	208	161	122	98	81	61	...
6	54.16	....	....	1.29	3.09	4.39	5.36	11.59	.....	.....	82.32	196.98	279.86	342.10	739.08	....	186	144	119	87	73	55	...
5	65.00	....	....	.98	2.34	3.34	4.08	8.82	.....	.....	74.96	179.00	255.50	312.10	674.72	....	...	135	103	82	69	51	...
4	81.25	....	....	....	1.67	2.38	2.90	6.27	.....	.....	.....	157.77	227.58	277.31	599.56	....	...	...	90	72	60	45	...
3	108.33	....	....	....	1.09	1.53	1.89	4.08	.....	.....	.....	138.97	197.62	240.97	520.20	....	...	...	...	61	54	38	...

EXPLANATION.—Find the head of water in the left hand column; and in a line with it under the appropriate head will be found the number of inches of water (miners' measurement) required for each horse power; the number required for each sized wheel; the horse power of each sized wheel; and also the number of revolutions per minute of each sized wheel.

☞Orders solicited and promptly attended to, and Circulars furnished, by

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A. L. PREVOST, who has one million or more of silk worms at the Pavilion, Sacramento, was called upon the other day by a Chinaman, who solicited and received a few of the worms to take home and feed. He represented that he had been accustomed to raising silk-worms in China, and promised to have ready for the State Fair a fan made from the silk of the worms given him.

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The Bank of California.
SAN FRANCISCO, MAY 9, 1866.

NOTICE.—AT A MEETING OF THE STOCKHOLDERS of this Bank, held on the 5th instant, it was resolved to increase the Capital Stock of the Corporation to $5,000,000, Gold, to take effect on the FIRST DAY OF JULY next, and the President and Cashier are authorized to receive subscriptions for $2,000,000 of said Capital Stock. Parties desirous of subscribing will make application at the Bank, either personally or by letter, when further details will be given.

D. O. MILLS, President.
19v12-1m W. C. RALSTON, Cashier.

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Mantels, Monuments, Tombs, Plumbers' Slabs
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For sale, Mahogany, Spanish Cedar, and other Fancy Woods. 20v12-3m

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FIRE, HYDRAULIC & SUCTION HOSE,
And Leather Belting.
M. M. COOK & SON,
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The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

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CONSTANTLY ON HAND,
A Large and Complete Assortment
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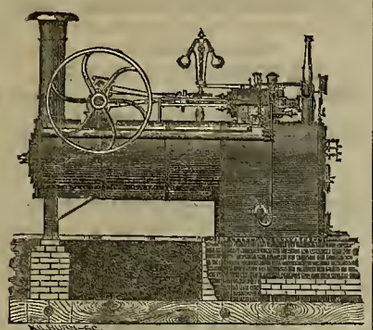

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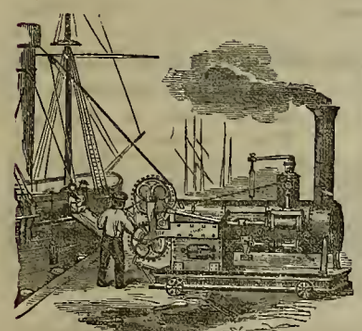

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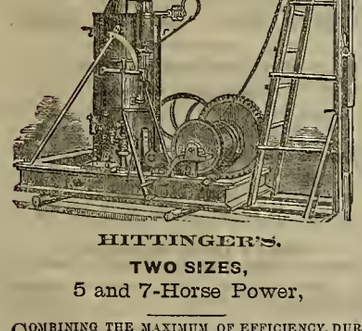

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These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

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GOODYEAR & BLAKE,

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—AND—

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The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

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COPPER, SILVER, GOLD, LEAD

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VOLUME TWELFTH.—The MINING AND SCIENTIFIC PRESS, with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

International Hotel,

JACKSON TREET,

BETWEEN MONTGOMERY AND KEARNY STS.,

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THIS OLD ESTABLISHED HOUSE IS IN PERFECT order for the accommodation of guests. Persons seeking comfort and economy will find this the best Hotel in the city to stop at. The beds are new and in good order, and the Rooms well ventilated. The Table will always be supplied with the best in the market.

Prices varying from $1 50 to $2 per day for Board and Room.

FINE BATH HOUSE AND BARBER SHOP ATTACHED TO THE HOUSE.

☞ Teams belonging to the House will be in attendance at all the boats and cars to convey passengers to the House FREE OF CHARGE, and to any part of the city for 50 cents
☜21v12 P. E. WEYGANT, Proprietor.

INTERNATIONAL HOTEL,

K Street, between Third and Fourth,

SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
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BRANNAN HOUSE,

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Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m A. J. SENATZ, Proprietor.

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BUILDING AND LOAN SOCIETY

Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING AND LOAN SOCIETY, announce to the public the removal of their business to their

NEW BANKING HOUSE,

California Street, one Door from Sansome.

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The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
Second—The Erection of Houses.
Third—The Erection of Manufactories,
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

MONTHLY DEPOSITS.

ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

CURRENT ACCOUNTS.

HALF PER CENT PER MONTH will be allowed on the daily balances to credit of Current Banking Accounts—the same to be ascertained and credited monthly.

REMITTANCES FROM THE COUNTRY

PROMPTLY ACKNOWLEDGED.

INTEREST on all sums commences from the day of deposit.

DEPOSITS of any amount received, from FIVE DOLLARS upwards.

OFFICE HOURS—9 1-2 A.M. to 3 1-2 P.M. daily.

SATURDAY EVENINGS from 6 1-2 to 9 o'clock.

THOMAS MOONEY, President.
W. C. WEIR,
SAMUEL CRIM,
ROBERT LEWELLYN,
JOHN DUNN,
C. A. JANKE,
A. ROSENFELD,
J. W. MCCORMICK,
16v12-3m L. R. TOWNSEND, Secretary.

WE ARE NOW OFFERING

OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LOW PRICES.

J. R. MEAD & CO.,
8v10 Cor. of Washington and Sansome streets

CAUTION.

LOST—CERTIFICATE No. 23, OF TEN SHARES IN the CAMARGO Gold and Silver Mining Company—Location, Reese River—said Certificate standing in the name of the subscriber. Any person finding the same is hereby cautioned against negotiating said Stock.

W. B. C. HARKER.
San Francisco, May 29th, 1866. 22v12 3

MONEY BY MAIL.—Subscribers and advertisers remitting us money in less sums than $50, can do so by mail at our risk, if they will register their letters; we will take no risk on unregistered letters, or letters by express. Remittances by express must be prepaid

THE FIRST PRAYER IN CONGRESS.—The following is the first prayer made in the old Continental Congress, in 1777, by the Rev. Jacob Duchet, then rector of the Christian Church, Philadelphia: "Be thou present, O God of wisdom, and direct the counsels of this honorable assembly; enable them to settle all things on the best and surest foundations; that the scene of blood may be speedily closed; that order, harmony and peace may be effectually restored, and truth and justice, religion and piety, prevail and flourish among the people. Preserve the health of their bodies and the vigor of their minds; shower down on them, and the millions they here represent, such temporal blessings as Thou seest expedient for them in this world, and crown them with everlasting glory in the world to come. All this we ask in the name and through the merits of Jesus Christ, Thy Son, our Saviour. Amen."

VALUABLE MINES!

FOR SALE

IN NEVADA COUNTY.

FOUR VALUABLE QUARTZ MINES, SITUATED AT THE base of Deer Mountain, and about equi-distant from Grass Valley and Nevada City, are now offered for sale These ledges run parallel with each other, are wide and well defined, varying from fifteen inches to four feet in width, and have been sufficiently developed to prove them to be of great prospective value. One of them is an extension of the famous Star Spangled Banner. A shaft has been sunk on the extension to a depth of thirty feet, where the ledge is fully two feet wide, and prospects quite as well as the Banner did at that depth. On account of water, further progress downward was impossible without machinery. These claims are accessible at all seasons of the year, and wood and water exist in their immediate vicinity in great abundance. Parties who would prefer putting up machinery and sinking on one or more of these claims, for an interest in them, can do so, and liberal terms will be granted by the present owners.

Persons desiring to purchase claims, or erect machinery to prospect the same, will find this a capital chance. For further information, reference may be had on application to the Editors and Publishers of the MINING AND SCIENTIFIC PRESS, 505 Clay street, San Francisco. 21v12

JOHN TAYLOR & CO.

IMPORTERS,

AND DEALERS IN

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OBERLINO (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGOISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco March 6, 1865. 11v10-tf

WM. H. KEITH & CO.,

Chemists and Apothecaries,

PROPRIETORS AND MANUFACTURERS OF

WM. H. KEITH & CO'S WINE OF PEPSINE, OR RENnet Wine, a new and efficacious remedy for Dyspepsia, Gastralgia, etc. WM. H. KEITH & CO'S GLUCOLEIN, a new and valuable compound of Cod Liver Oil, put up in glass jars. WM. H KEITH & CO'S LEMON APERIENT, or Purgative Lemonade, an agreeable, cooling and active purgative, or mild laxative, as required. WM. H. KEITH & CO'S SAPONACEOUS TOOTH POWDER. DEVINE'S PITCH LOZENGES, for the cure of coughs and colds. Wm. H. Keith & Co's Florentine Tooth Wash. Wm. H. Keith & Co's Granula Effervescent Citrate of Magnesia. Wm. H. Keith & Co's Rosemary and Castor Oil Hair Invigorator.

WM. H. KEITH & Co. being in frequent communication with Eastern and European markets, are continually renewing their stock of Pure Drugs, Rare Chemicals, Fancy Goods, and Toilet Articles, Pure Oils, etc. They also give special attention to replenishing ship medicine chests.

Also, just received, a large and well-selected invoice of HERNSTEIN'S CELEBRATED INSTRUMENTS, consisting in part of Amputating and Obstetric sets, Pocket Cases, etc.

Physicians and others at a distance ordering goods from us, can depend upon having their orders filled with the same regard to quality and prices, as though obtained in person, and we give particular attention to packing and forwarding the same.

WM. H. KEITH CO.,
Apothecaries' Hall, No. 521 Montgomery street,
15v12-1y Between Clay and Commercial, San Francisco.

Eyes! Eyes!! Eyes!!!

DR HENLY, OCULIST AND AURIST, HAS received from Scotland one of the most miraculous remedies for the benefit of the human eye ever before discovered. It is unparalleled in its effects upon the diseases incident to this organ. It gives wonderful power to the optic nerve, and removes all the granulations from the lids, and all mucous film from the sclerotic coat without the use of instruments. In fact, it works like a charm on the Eye, without giving any pain. You feel the effect of the medicine in different parts of the head. It drives the disease back into the system, which is better able to stand it than this tender organ.

Why will you suffer when you can be cured in a few days. Persons who have been blind for ten years have been restored to their sight in a short time by the use of this medicine. I will treat any person's eyes in the State, and if I do not give them relief in a short time, I WILL NOT CHARGE THEM ANYTHING. Office, No. 751 CLAY STREET, opposite the Plaza, San Francisco. 22-v12

The first bonnet worn in England was brought from Italy in the reign of Queen Elizabeth, and its form was a compromise between the pres- ent Italian peasant hat and the French hood. The materials employed in constructing these head ornaments were crimson satin, elaborately embroidered, cloth of gold, and similar rich materials. The Leghorn hat, with perpendicular crown and wide brim, standing out far round the face, was the first legitimate bonnet worn, and this appeared long after Queen Elizabeth's time. It was trimmed with artificial flowers and immense bows of ribbons.

A Great Cavern under Lancaster, (Pa.) Strong proofs are adduced of the existence of a vast though unexplored cavern beneath the city of Lancaster, Pa. In sinking wells, the bottom crust, which is limestone, breaks through before reaching the water, and the pumps are suspended from above by chains. There are also authenticated cases of the earth in the neighborhood of the place breaking through and engulfing farm animals. Shocks like those of an earthquake have been felt. These are curious stories, which are given for what they are worth.

Nevada and Grass Valley.—The assessable property of Nevada city is about $1,000,000, while that of Grass Valley will be in the vicinity of $2,000,000. So say the officials engaged in collecting statistics.

It is said that the cabbage seed gathered from the middle flower stem produces cabbage for use a fortnight earlier than those from the lateral flower stems.

The St. Louis *Dispatch* asserts that pilots on the Missouri River get from sixteen to eighteen hundred per month at present.

Conscience.—A tender conscience is like the apple of a man's eye: the least dust that gathers into it affects it painfully.

The quantity of maple sugar returned in Ohio in 1864, was 6,785,178 pounds.

Machinists and Foundries.

O. HANSCOM / S. SMITH. } **HANSCOM & CO.,** { T. PENDERGAST. / W. W. HANSCOM.

Ætna Iron Works!

Southeast corner Fremont and Tehama streets,
SAN FRANCISCO.

Practical Machinists and Iron Founders,
MANUFACTURE
STEAM ENGINES,
QUARTZ MILL MACHINERY OF ALL KINDS,
SAW MILLS, FLOUR MILLS,
Dunbar's Improved Self-Adjusting
PISTON PACKING,
Now so extensively used in the East and in this State. Requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.
HANSCOM'S CRUSHER,
the best of the kind now in use in this State or anywhere else
Wheeler & Randall's New Grinder and Amalgamator,
Which only needs examination to be appreciated.
Tyler's Improved Water Wheel,
Giving greater power at lower cost, than any wheel in use
Send for one of our circulars, giving full tables
All Wheels warranted to give the power as set forth, or the money will be refunded.
Sole makers for this coast of the "Pendergast White Iron Stamp Shoes and Dies.
None genuine unless obtained from us. Every one warranted.
Patented Machinery of all kinds will be furnished by us at market prices. Particular attention given to drawings and specifications of machinery, which will be made to order. The patronage of the public is respectfully solicited.
19v12

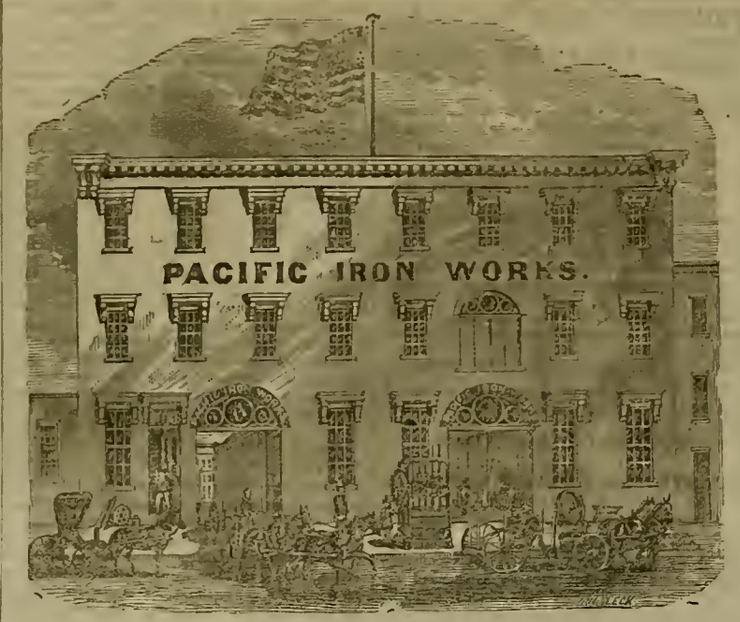
SAN FRANCISCO Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,
Manufacturers of
Marine and Stationery Engines,
Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.
—ALSO—
Wine, Cider, Cotton and Tobacco Presses
of the latest Improved Patterns.
Prodle's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Baux & Guiod's Amalgamator and Separator; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.
Dunbar's Improved Self-Adjusting Piston-Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.
MACHINERY, OF ALL DESCRIPTIONS,
Bought, sold, or exchanged. Bolt Cutting and Castings at the lowest market rates.
6v11-1y **DEVOE, DINSMORE & CO**

JAMES MACKEN,
COPPERSMITH,
No. 226 Fremont st., bet. Howard & Folsom.
All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.
Repairing promptly and neatly attended to.
13v11



THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

Vulcan Iron Works Company

[ESTABLISHED 1850.]
First, Natoma and Fremont Streets.

IRON FOUNDERS,
Steam Engine and Locomotive
BUILDERS,
Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery, Locomotives, Car Tracks, Car Wheels, Housings and Irons; and Flouring Mills, Quartz Mills, Sugar Mills, Saw Mills,

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR
BEATH'S AMALGAMATOR;
HENSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;
BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;
FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;
JONVAL'S IMPROVED WATER WHEEL;
LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.
STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

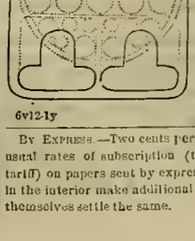
LEWIS COFFEY. J. S. MISLON

LEWIS COFFEY & RISDON,
Steam Boiler & Sheet Iron Works.

The only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.
Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

NEPTUNE IRON WORKS,

Corner of Mission and Fremont Streets,
SAN FRANCISCO.



MARINE,
Locomotive,
And all kinds of
HIGH PRESSURE
Steam Boilers
MADE.
All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.
All kinds of Sheet Iron and Water Pipe, Coal Oil Stills, Wrought Iron Worms, etc., etc. Manufactured to Order.
Old Boilers Repaired
6v12-1y **D. CAMERON.**

H. J. BOOTH. GEO. W. PRESCOTT. I. M. SCOTT.

UNION IRON WORKS!

Corner First and Mission streets,
SAN FRANCISCO.

ESTABLISHED IN 1849.

Having increased our facilities in every Department, we are now prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

Engines.

Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott and Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

Boilers.

Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

Amalgamating Machinery.

Wheeler & Randall's improved Tractory Curve Pan, Zenas Wheeler's Improved flat bottom pan, Beldin's pan, Veatch's tubs, Prater's concentrators, Waklee's pans, Beers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs.

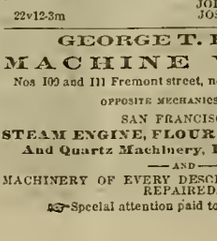
BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

Oil Boring Tools and Machinery,

Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania.
We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.
Russia Iron Screens, of all degrees of fineness and of all qualities of iron.
All work done in the best manner at the lowest cash prices.
21v10 **H. J. BOOTH & CO.**

California Brass Foundry,

No. 125 First street, opposite Minna,
SAN FRANCISCO.



ALL KINDS OF BRASS, Composition, Zinc, and Babbitt Metal Castings, furnished at the shortest notice. Brass Ship Work of all kinds, Spikes, Sheathing Nails, Rudder Braces, Hinges, etc., constantly on hand and made to order. Also, manufacture Ship and Steamboat Bells and Gongs of superior tone.
All kinds of Steam, Liquor, Water, Oil, and Flange Cocks and Valves made and repaired.
Hydraulic Pipes and Nozzles, and Hose Couplings and Connections of all sizes and patterns furnished with dispatch. **Prices moderate.**
22v12-3m JOHN P. GALLAGHER, JOSEPH H. WEED.

GEORGE T. PRACY,
MACHINE WORKS,
Nos 109 and 111 Fremont street, near corner of Mission,
OPPOSITE MECHANICS' MILL,
SAN FRANCISCO.
STEAM ENGINE, FLOUR AND SAW MILL And Quartz Machinery, Printing Presses,
—AND—
MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.
☞Special attention paid to Repairing.☜ qy-3

PALMER, KNOX & CO.,

Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,
SAN FRANCISCO.

MANUFACTURE ALL KINDS OF
MACHINERY,
STEAM ENGINES AND QUARTZ MILLS
DUNBAR'S IMPROVED
Self-Adjusting Piston Packing,
Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.
WHEELER & RANDALL'S
NEW GRINDER AND AMALGAMATOR
HEPBURN & PETERSON'S
AMALGAMATOR AND SEPARATOR,
Tyler's Improved Water Wheel,
Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.
KNOX'S AMALGAMATORS,
WITH PALMER'S PATENT STEAM CHEST,
Superior for working either Gold or Silver Ores.
Genuine White Iron Stamp Shoes and Dies
Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-1f

FULTON
Foundry and Iron Works.

HINCKLEY & CO.,
MANUFACTURERS OF
STEAM ENGINES,
Quartz, Flour and Saw Mills,
Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.
Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

Miners' Foundry
—AND—
MACHINE WORKS,

First St., between Howard and Folsom Streets,
SAN FRANCISCO.

Every description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as
Steam Engines and Boilers, Flour, Saw and Quartz Mills,
Machinery, Mining Pumps, Amalgamators,
Retorts, Etc., Etc.
Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.
*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, free of cost.
All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.
HOWLAND, ANGEL & KINO

Pioneer Iron Works.

KITTREDGE & LEAVITT,
MANUFACTURERS OF
FIRE-PROOF DOORS AND SHUTTERS

Steel Lined Bank Vaults and Safes,
PRISON CELLS, BALCONIES, AWNINGS,
Grating and Iron Fences, Stairs, Etc.
ALSO, AGENTS FOR
BUSSEY'S NEWLY PATENT COMBINATION
BURGLAR-PROOF LOCK,
☞ No KEY, or visible signs of OPENING. ☜
Corner of Battery and Jackson streets,
San Francisco.
Constantly on hand a large assortment of Second-Hand Fire-Proof Doors and Shutters. 18v12

UNION IRON WORKS,
Sacramento.
WILLIAMS, HEILBRON & CO.,
MANUFACTURERS OF
STEAM ENGINES, BOILERS,
And all kinds of Mining Machinery.
Also, Hay and Wine Presses made and repaired with neatness, durability and dispatch.
Dunbar's Patent Self-Adjusting Steam Piston
PACKING, for new and old Cylinders, manufactured to order.
Front Street, between N and O streets,
14v11 SACRAMENTO CITY

JOHN LOCHHEAD'S
STEAM ENGINE WORKS,
Beale Street, near Mission Street,
SAN FRANCISCO.
Steam Engines of every description built to order—Marin Stationary, or Locomotive.
Hoisting and Pumping Engines,
Portable Engines of all Sizes; Donkey Pumps, Etc
25v9q JOHN LOCHHEAD, Practical Engineer

By Express.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting express lines in the interior make additional charges, subscribers must themselves settle the same.

Occidental Homestead ASSOCIATION,

Office, 305 Montgomery street, San Francisco.

Capital Stock : : : : : : $33,600

102 Shares, $33 Each.

THIS ASSOCIATION was formed to enable its members to obtain desirable homestead lots in this city, at a cheap and easy rate, paying for the same by regular monthly installments. For this purpose they have purchased blocks 499, 500, and 501 in the Western Addition to this city, bounded by Devisadero, Pine, Broderick and Clay streets. Subscribers will pay an initiation fee of $5 on each share taken, to form a fund for defraying current expenses, and $11 per month for thirty months, commencing in April, 1866. The property is within three blocks of the Turk Street Railroad, is nearly all on the grade, and is most desirably located for homestead purposes. It is directly east from the lands of the California Homestead Association. The property has been purchased on very reasonable terms, and offers a rare opportunity for investment. A number of fine houses are in process of erection, and streets are being graded near this property, which will greatly increase its value.

When twelve monthly payments have been made, the property will be divided among the members in the usual manner, and each shareholder will receive a contract for a deed to the lot or lots to which he may be entitled, and have the privilege of taking immediate possession of the same. The lots average 27 feet in front by 120 feet in depth. The whole amount due upon any lot may be paid at any time, and discount at the rate of 1½ per cent. per month will be deducted therefrom. Persons wishing to visit the lands of this Association will take the Turk street cars to Devisadero street, and thence go northerly along Devisadero to Pine street.

$20,000 of the capital stock is taken, and the books are open for subscription to the balance, at the office of the Secretary, where the Official Map of the Association can be seen, and all particulars obtained.

The Title to this property is perfect.

J. S. LUTY, Secretary.

Office 305 Montgomery street, corner of Pine, Rooms 2 and 6. 20v12-tf

Pacific Mail Steamship Co's THROUGH LINE TO NEW YORK,

Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

On the 10th, 18th and 30th of each month that has 30 days.

On the 10th, 19th and 30th of each month that has 31 days.

When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceeding; when the 18th falls on Sunday, they will leave on Monday following.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departures of 15th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

June 9th—GOLDEN AGE.....Capt. E. S. Farnswortb, Connecting with Costa Rica, Capt. Bradbury.

June 18th—CONSTITUTION.....Capt. F. R. Baby, Connecting with NEW YORK, Capt. Gray.

June 30th—GOLDEN CITY.....Capt. Jas. T. Watkins. Connecting with ARIZONA, Capt. Manry.

Cabin passengers berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.

OLIVER ELDRIDGE, Agent.

Rheumatism!!

READ IT! READ IT!!

SACRAMENTO, April 16th, 1866.

H. BOWMAN—DEAR SIR: THIS IS THE FIRST WRITing I have done in two years, and it affords me great pleasure to be able to use my pen in the service of those who are suffering, as I have suffered, by stating the following facts:

I have for two years and upwards been afflicted with CHRONIC RHEUMATISM, and until a few weeks ago I have never found anything that afforded me any relief. For three months of the time I was unable to feed myself, and for the last five months my arms have been so bent that I have not been able to dress myself. I was five months at the Warm Springs, at San Luis Obispo, and three months at a Hydropathic Institute in Stockton, and I have been under the care of six different physicians, in the vain hope of relief. About four weeks ago I was induced by a person who had been cured by it to try a bottle of RICHARD'S REMEDY FOR RHEUMATISM, and in less than twelve hours I experienced great relief. In a few days I was enabled to straighten out my arms, and I have been getting better and gaining in strength and flesh ever since. I have now the complete use of all my limbs, and, for the first time in two years, I am out of pain. I do feel for those who suffer as I have suffered, and if they will take my advice, they will lose no time in giving the REMEDY a trial.

Yours truly, GEORGE TAYLOR.

☞ RICHARDS' REMEDY is for sale by

H. BOWMAN,
Druggist, Sacramento.

Price, $2 50 per Bottle. 20v12

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Arizona Copper Mining Company, Castle County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the second day of June, 1866, an assessment of forty cents per share was levied upon the capital stock of said company, payable on the fifth day of June, 1866, in United States gold and silver coin, to the Secretary, at his Office, No. 302 Montgomery street, in the city of San Francisco.

Any stock upon which said assessment shall remain unpaid on the seventh day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the twenty-fourth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

SAMUEL I. C. SWEZEY, Secretary.

Office, No. 302 Montgomery street, San Francisco, California. je9

Diana Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of June, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 20th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Friday, the 10th day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. je9

Dios Padre Gold and Silver Mining Company. Location of Works: Alamos, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the twenty-eighth day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
A D Rightmire	193	4	$12 00
A D Rightmire	266	3	9 00
A D Rightmire	331	5	15 00
William Bihler	299	20	50 00
William Bihler	223	5	15 00
William Bihler	339	25	75 00
Sarah Maddux	337	133	399 00
Sarah J Maddux	301	40	120 00
A J Cambill	242	25	75 00
A J Cambill	304	18	54 00
A J Cambill	305	22	66 00

And in accordance with law and an order of the Board of Trustees, made on the 28th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 418 Montgomery street, San Francisco, Cal., on the 23d day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

E. C. McCOMB, Secretary.

Office, No. 1 Government House, corner Sansome and Washington streets. je9

Evoea Consolidated Copper Mining Company: Location of Works—Court Hill District, near Black's Ferry, Del Norte County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the fourth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
C. S. Ashmead,	173	50	$12 50
C. S. Ashmead,	238	50	$12 50
F. Collier,	21	112	$28 00
J. H. Stewart,	256	17	$ 4 25
J. H. Stewart,	257	5	$ 1 25
W. F. Williamson,	14	112	$28 00
W. F. Williamson,	15	112	$28 00

And in accordance with law and an order of the Board of Trustees, made on the 4th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 418 Montgomery street, San Francisco, Cal., on the second day of July, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHARLES E. ABBOT, Secretary.

Office, 532 Merchant street, Room 3, San Francisco, California. je9

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 10th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Boggs, Geo W	137	6	$6 00
Boggs, A G	67	11	11 00
Cone, Jesse B	136	5	5 00
Cone, Jesse B	18, 133 and 134	10-ea 30	30 00
Cook, A J	93	10	10 00
Cornwell, James F	82	10	10 00
Calderwood, Matbew	150	10	10 00
Clark, J Warren	not issued	10	10 00
Davidson, Olo	57	5	5 00
Dutton, David	244	4	4 00
Dutton, David	219, 220, 242 and 213	10-ea 40	40 00
Forrester, E A	88	5	5 00
Francis, J H & J G	277	6	6 00
Gillam, John	73 and 74	10 ea 20	20 00
Grigsby, T L	99	10	10 00
Grigsby, R F	169	10	10 00
Hackney, H W	37	5	5 00
Hastie, Robert	259	10	10 00
Kather, Chas	90	15	15 00
Kercheval, Sarah A	240	10	10 00
Linn, Geo	253	10	10 00
Mudgett, John	251 and 252	5-ea 10	10 00
Miller, G A	91	10	10 00
McGill, Wm	41	5	5 00
Mason, Chas	254	5	5 00
Nelson, A G	55	1	1 00
Nelson, J G	56	5	5 00
Pearson, J N	212 and 213	5 ea 10	10 00
Ransdell, S W	215	5	5 00
Roberts, J R	279	5	6 00
Vanu, Matbew	161	5	5 50
Vack, J	285	10	10 00
Vack, J	293	5	5 00
Whitton, M S	185, 186, 187, 188 189, 190, 191, 192 193, 194, 195, 196	10-ea 120	120 00
Whitton, Wm F	214	10	10 00
Whitton, C J	299	5	5 00
York, John	275	5	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 10th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of Messrs. Olney & Co., 418 Montgomery street, on the 26th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. je8

North Star Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

All persons are hereby cautioned not to purchase or negotiate for the following described stock, sold this day, June 6th, 1866, for delinquent assessment No. 12, of twenty-five dollars ($25) per share:

In Name of	Certificate.	Shares.	Shares Sold.
John W Harker	380	6	6
John W Harker	455	6½	6½

As said stock will not be transferred on the books of the Company. By order of the Board of Trustees.

GOTTLIEB BEER, Secretary.

Office, 226 Front street, San Francisco. je9

Simpson & Bosselle Mining Company Mines located in Carson Valley District.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Andrews, Curtis	376	10	$10 00
Amstatz, C L	236	17	17 00
Amstatz, C L	306	5	5 00
Ayres, J G	367	10	10 00
Allen, O H	359	10	10 00
Bonney, O Jr	371	50	50 00
Bouney, O Jr	372	23	23 00
Bonney, O Jr	373	10	10 00
Briggs, N C	378 and 387	5-ea 10	10 00
Blum, Isaac	192	5	6 00
Blum, Isaac	232	10	10 00
Burnell, R	207	10	10 00
Bedell, M B	222	5	5 00
Bedell, B N	223	10	10 00
Ball, T D	301	10	10 00
Chevrillier, L E	167	5	5 00
Cheval ier, Margaret	174	3	3 00
Cagwin, H A	189	5	5 00
Crabtree, Ebon	261	10	10 00
Curtis, Tyler	307	10	10 00
Cook, H	388	10	10 00
Cronkite, John	375	10	10 00
Dole, Fred Jr	368	10	10 00
English, James	248	5	5 00
Echler, J A	276	10	10 00
Esty, M A	276	10	10 00
Felsenthal, P	128	5	5 00
Fulton, Jno	279	5	5 00
Grinage, F W B	153	5	6 00
Goff, C R	388	30	30 00
Goff, C P	390	5	5 00
Goff, Hannah J	278	5	5 00
Could, T H	386	10	10 00
Hartwell, C H	148, 149, 150	5-ea 15	15 00
Holser, John	379	5	5 00
Hogle, G T	237	10	10 00
Harter, D	270	15	15 00
Harbine, L	384	10	10 00
Ivens, C H	299	10	10 00
Johnson, W A	393	5	5 00
Johnston, W J	336	10	10 00
Johnson, J R	256	10	10 00
Ledlie, Mary J	339	10	10 00
Ledlie, Mrs J	340	10	10 00
Ledlie, Arthur	342	5	5 00
Lampman, Chas	360	20	20 00
Mitchell, D C	380	5	5 00
Murray, James	156	10	10 00
McKillican, D R	106	100	100 00
McKillican, D R	112	10	10 00
Mauk, F	202	10	10 00
Mauk, F	203	10	10 00
Moore, Charles	360	10	10 00
Nichols, John	19 and 20	50-ea 100	100 00
Nichols, John	21	25	25 00
Nichols, John	25, 26, 27, 10	0a 30	30 00
Nichols, John	370	15	15 00
Newman, Simon	191	5	5 00
Nelson, J	361	10	10 00
Nelson, J	362	5	5 00
Organ, Thos J	206	5	5 00
Osborn ——	381	6	5 00
Payne, G G	182	25	25 00
Payne, G G	374	10	10 00
Parker, J W	262	20	20 00
Parker, J W	263 and 264	25-ea 50	60 00
Peltier, Andre	358	5	5 00
Reisch, P M	199	10	10 00
Reischling, P	235	17	17 00
Reischling, P	211 and 305	5-ea 10	10 00
Robinson, Samuel	212	10	10 00
Robinson, J C	336	25	25 00
Severance, H	301	10	10 00
Seeley, J	233	10	10 00
Spear, Asa	303	5	5 00
Stanley, J P		5	5 00
Stanley, J P	365	10	10 00
Smith, Argus	392	5	5 00
Smith, J T	334	5	5 00
Stiles, E B	353	25	25 00
Simpson, Edwin	382, 383, 384	5-ea 15	15 00
Simpson, Edwin	385	65	65 00
Simpson, Edwin	73	100	100 00
Simpson, Edwin	246	11	11 00
Trumble, P	377	6	5 00
Timson, J	234	5	5 00
Wright, Nellie B	173	5	5 00
Wolfer, C	395	5	5 00
Watkins, Jas T	359	10	10 00
Wooden, Wm	345, 345, 347, 348 349, 350, 351, 352	5-ea 40	40 00
Wooden, Wm	353	10	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 20th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Maurice Dore & Co's salesroom, 327 Montgomery street, San Francisco, Cal., on the 25th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.

Office, 305 Montgomery street, San Francisco. je9

Union Mattole Oil Company. Location of Works: Humboldt County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the fourth (4th) day of June, 1866, an assessment of five dollars ($5) per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Treasurer, W. C. Parker, No. 608 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the sixteenth (16th) day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the twentieth (20th) day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. WINTER, Secretary.

Office, No. 608 Montgomery street. jy9

Mining Notices--Continued.

Arbitrios Mining Company, Batopilas District, State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of May, 1866, an assessment (No. 10) of one dollar and fifty cents ($1.50) per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 811 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 12th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 13th day of August, 1866, to pay the delinquent assessment thereon, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.

Office, 811 Montgomery street, San Francisco, Cal.

N. B.—Until further notice, all advertisements of this Company will appear in the MINING AND SCIENTIFIC PRESS. je2

oston Copper Mining Company, Ohio Mining District, El Dorado County, California.

Notice is hereby given, that at a meeting of the Board Trustees of said Company, held on the 21st day of y, 1866, an assessment of fifty (50) cents per share was ied upon the capital stock of said Company, payable the 24d day of May, 1866, in United States gold and silver in, to the Secretary, at the office of the Company, No. Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unid on the 22d day of June, 1866, shall be deemed delint, and will be duly advertised for sale at public auction, d unless payment shall be made before, will be sold on ednesday, the 18th day of July, 1866, to pay the delinquent sessment, together with costs of advertising and expenses sale. By order of the Board of Trustees.

J. C. HUTCHINSON, Secretary.

Office, 626 Montgomery street, San Francisco, Cal. my26

osala Silver Mining Company, Cosala District, State of Sinaloa, Mexico.

Notice is hereby given that at a meeting of the Trustees said Company, held on the 26th day of May, 1866, an assessment of one (1) dollar per share was levied upon the essable capital stock of said Company, payable immedicly in gold coin of the United States, to CHARLES BAUM, eretary, at the office of this Company, No. 510 Battery reet, opposite the Custom House, San Francisco.

Any stock upon which said assessment shall remain unid on the 30th day of June, 1866, shall be deemed delinent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold the 17th day of July, 1866, to pay the delinquent assessent, together with costs of advertising and expenses of le. By order of the Board of Trustees.

CHAS. BAUM, Secretary.

ffice, No. 510 Battery street, opposite the Custom House, San Francisco. jul

rockett Consolidated Mining Company.—Locaion of Works: District and County of Esmeralda, Nevada.

Notice is hereby given, that at a meeting of the Board Trustees of said Company, held on the 17th day of ay, 1866, an assessment of one dollar per share was vied upon the capital stock of said Company, payable day 25th, 1866, in United States gold and silver coin, to the ecretary, at the office of the Company, No. 10 Exchange uilding, corner Washington and Montgomery streets, San rancisco, Cal.

Any stock upon which said assessment shall remain unaid on the 23d day of June, 1866, shall be deemed delinent, and will be duly advertised for sale at public auction, nd unless payment shall be made before, will be sold on onday, the 10th day of July, 1866, to pay the delinquent assment, together with costs of advertising and expenses f sale. By order of the Board of Trustees.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Buildings, San Francisco, Califor-ia. my26

apitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

Notice is hereby given, that at a meeting of the Board f Trustees of said Company, held on the 30th day of pril, 1866, an assessment of ten cents per share was vied upon the capital stock of said Company, payable imediately, in United States gold and silver coin, to the ecretary, or to E. H. SWARTHOUT, Treasurer, San Jose, alifornia.

Any stock upon which said assessment shall remain unaid on the 12th day of June, 1866, will be deemed delinuent, and will be duly advertised for sale at public auction, nd unless payment shall be made before, will be sold on onday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses f sale. By order of the Board of Trustees.

D. R. BECKFORD, Secretary.

Office, 731 Clay street, San Francisco, Cal. my5

Eagle Quartz Mining Company.—Locution of Works: Amador County, California.

Notice is hereby given, that at a meeting of the Board of rustees of said Company, held on the 15th day of May, 866, an assessment of one dollar per share was levied pon the capital stock of said Company, payable immeiately, in United States gold and silver coin, to the Secreary, No. 10 Exchange Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unaid on the 16th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Friday, the 6th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOHN M. BURNETT, Secretary.

Office, No 10 Exchange Building, San Francisco. my19

Great Basin Mining Company.—Location of Works: Humboldt County, Nevada. Office, southeast corner of Pine and Montgomery streets, San Francisco, California.

Notice is hereby given, that at a meeting of the Trustees of said Company, held May 2d, 1866, an assessment of nine cents was levied upon each and very share of the capital stock of the said company, payable immediately, in United States gold coin, to the Secretary, at his office, in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 12th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale, at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of dvertising and expenses of the sale. By order of the Board of Trustees.

S. T. KING, Secretary *pro tem.*,

Office, S. E. corner Pine and Montgomery streets, San Francisco. my5-5w

Gold Hill Tunneling Gold and Silver Mining Company.—Location: Cold Hill Mining District, County of Storey, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May, 1866, an assessment (No. 7) of one dollar per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, R. WEGENER, 415 Montgomery street, San Francisco, California, or to the Superintendent, Mr. F. CHAPPELLET, Gold Hill, Nevada,

Any stock upon which said assessment shall remain unpaid on the 15th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 10th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal.

Hancom Copper Mining Company.—Location Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 29th day of May, 1866, an assessment of thirty (30) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, S. S. SWEET, No. 609 Market street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 29th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.

Office, No. 609 Market street, San Francisco, Cal. je2

Keokuk Gold, Silver and Copper Mining Company, Clayton District, Contra Costa County, State of California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 17th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
O B Turrell	70	30	$ 3 00
F Loehr	278	200	20 00
F Loehr	279	50	5 00
F Loehr	297	120	12 00
F Loehr	330	30	3 00
F Loehr	347	00	0 00
F Loehr	350	20	2 00
F Loehr	374	45	4 50
F Loehr	397	70	7 00
F Loehr	405	100	110 00
F Loehr	431	16	1 50
F Loehr	475	76	7 50
F Loehr	405	150	16 00
F Loehr	508	59	5 90
F Loehr	513	241	24 10
F Loehr	514	155	15 50
F Loehr	527	103	10 30
Chas W Cordray	551	25	2 50
Chas W Cordray	555	25	2 50
Geo Cofran	136	25	2 50
Geo Cofran	137	50	5 00
Geo Cofran	not issued	95	9 50
Mrs J C Turrell	151	20	10 00
Mary Brooks	310	20	2 00
Ruth Taylor	311	10	1 00
D O Leary	308	20	2 00
Geo T Sharp	425	200	20 00
W W Theobalds	9	100	10 00

Aad in accordance with law, and an order of the Board of Trustees, made on the 17th day of April, 1860, se many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, Cal., on the 11th day of June, 1888, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. B. WINECAR, Secretary.

Office, 308 Front street, San Francisco. my26

Leland Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin to the Secretary, at his office in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Monigomery street, San Francisco, Cal m19

Lady of the Lake Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin, to the Secretary, at his office in San Francisco., Cal.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery Street, San Francisco, Cal. my19

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 4th day of May 1865, an assessment of ten cents per share was levied upon the capital stock of said Company, payable in United States gold and silver coin, to the Secretary, C. HEYWOOD, 311 Market street, San Francisco, or to O. W. RUSSELL, Crescent City.

Any stock upon which said assessment shall remain unpaid on the 9th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Thursday, the 28th day of June, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. HEYWOOD, Secretary.

Office, 311 Market street, San Francisco, Cal. my5

POSTPONEMENT.—The day for deeming stock delinquent on the above assessment, is hereby postponed until Saturday, June 16th, 1866, and the sale thereof until Thursday, the 5th day of July, 1866. By order of the Board of Trustees.

je9 C. HEYWOOD, Secretary.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales of mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Mina Rica de las Flores Mining and Mill Company, Camp Flores, Near West Point, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the eighth day of May, 1866, an assessment (No. 12) of one dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, S. DICKINSON, at the office of the Company, No. 423 Washington street, Room No. 15, up stairs, San Francisco, between the hours of 11 A. M. and 1 P. M.

Any stock upon which said assessment shall remain unpaid on the nineteenth day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the sixteenth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. DICKINSON, Secretary.

Office, 423 Washington street, San Francisco, Cal.
San Francisco, May 9, 1866. my12-6w

North American Tin Mining Company. Location of Works: Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, A. D. 1866, an assessment of forty cents per share was levied upon the capital stock of said Company, payable in gold coin of the United States, immediately, to the Secretary, at his office, at 535 Clay street, in the city of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 22d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. N. THORNE, Secretary.

Office, Room No. 7, at 535 Clay street, San Francisco, California. my26

Nuestra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico,

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, (in the Drug store, near Dupont,) or to the Treasurer, A. HIMMELMANN, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 2d day of June, 1866, and unless payment shall be made before, will be sold on the 20th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug store, near Dupont street,) San Francisco, Cal. ap23

POSTPONEMENT.—Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of June, 1866, it was resolved to postpone the publication of the Delinquent Stock till SATURDAY, the 30th day of June, 1866.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug Store near Dupont street,) San Francisco, Cal. je2

Ophir of the Colorado Silver Mining Company, El Dorado Canon, Colorado District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of May, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, T. A. MUDGE, 523 Clay street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 26th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. A. MUDGE, Secretary.

Office, 528 Clay street, San Francisco. my26

Old Colony Quartz Mining Company.—Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of May, 1866, an assessment of three (3) dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, No. 523 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. O. HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco. my19

Office Providence Gold and Silver Mining Company.

NOTICE.—The annual meeting of the Stockholders of the above Company, for the purpose of electing Trustees, and transacting other necessary business, will be held at the Office of the Company, No. 10 Government House, San Francisco, on the 20th day of JUNE, 1866, at 2 o'clock P. M. of that day.

F. T. FOLSOM, President.

J. M. BUFFINGTON, Secretary.
San Francisco, May 19th, 1866. my19

Rippon Gold and Silver Mining Company, Silver Mountain District, Alpine County, Cal.

Notice is herchy given, that at a meetiug of the Board of Trustees of said Company, held on the 8th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the company, 338 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 11th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 2d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JAMES C. DAYLEY, Secretary,

Office, 338 Montgomery street, San Francisco, Cal. my12

Sierra Valley Gold and Silver Mining Company, Plumas County, California.

NOTICE.—There are delinquent upon the following described stock, the several amounts hereafter set opposite the names of the respective shareholders, on account of assessment of one (1) dollar per share levied on the 20th day of April, 1866, as follows:

Names.	No. Certificate.	No. Shares.	Amount
Ausous, V	151	5	$5 00
Ausous, V	154	10	10 00
Domenicoal, A	162	10	10 00
Martinoni, P	5	10	10 00
Martinoni, P	7	10	10 00
Martinoni, P	8	10	10 00
Martinoni, P	9	10	10 00
Martinoni, P	10	10	10 00
Martinoni, P	99	25	25 00
Martinoni, P	100	5	5 00
Millin, J M	102	5	5 00
Requa, J L	150	10	10 00
Requa, J L	100	10	10 00
Roqua, J L	161	5	5 00

Aad in accordance with law, and an order of the Board of Trustees, made on the 28th day of April, 1868, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Salesroom of Messrs. Olney & Co., at No. 626 Montgomery street, San Francisco, on the 18th day of June, 1866, at the hour of 12 o'clock, M., of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. NOEL, Secretary,

Office, 007 Washington street, San Francisco, Cal. je2

Office of Simpson Mining and Milling Company, San Francisco, California, June 1st, 1866.

NOTICE.—The annual meeting of the Simpson Mining and Milling Company, will be held on the second THURSDAY of June, 1866, at their office, southwest corner of Frout and Jackson streets, San Francisco, at 12 o'clock, M., for the choice of five Trustees for the ensuing year, and for aoy other business proper to be transacted at that time.

je2 T. B. BIGELOW, Secretary.

Sapphire Quartz Mill and Mining Company. Location: Gold Hill, Storey County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of May, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, Room No. 5, Lucas Turner & Co's Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 28th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 17th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. KOENIG, Secretary.

Office, Lucas Turner & Co's Building, N. E. corner of Jackson and Montgomery streets, San Francisco, Cal. my26

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

United States Mining Company, Virginia District, Storey County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 19th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm Green	328	10	$10 00
Sarah Torrens	317	10	10 00
Horace Porter	323	250	250 00.
C E Weber	319	50	50 00
Geo Torrens	316	10	10 00
Wm Van Housen	390	10	10 00
B C Brown	418	50	50 00
W P Davidson	423	50	50 00
John Prince	307	50	50 00
A A Smith	454, 555 25-ea	50	50 00
Elisha Eldrid	373, 374 20-ea	40	40 00
Elisha Eldrid	375	12	12 00
Tunnel T Duval		15	16 00
David S Turner	382, 363, 364		
	365 25-ea 100		100 00

Aod in accordance with law, and an order of the Board of Trustees, made on the 10th day of April, 1868, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 620 Montgomery street, San Francisco, California, on Wednesday, the 13th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessmeot thereon, together with costs of advertising and expenses of sale.

J. M. BUFFINGTON, Secretary.

Office, No. 10 Government House. my26

Yankee Blade Mining Company, Reese River Mining District, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 329 Montgomery street, San Francisco, Cal.

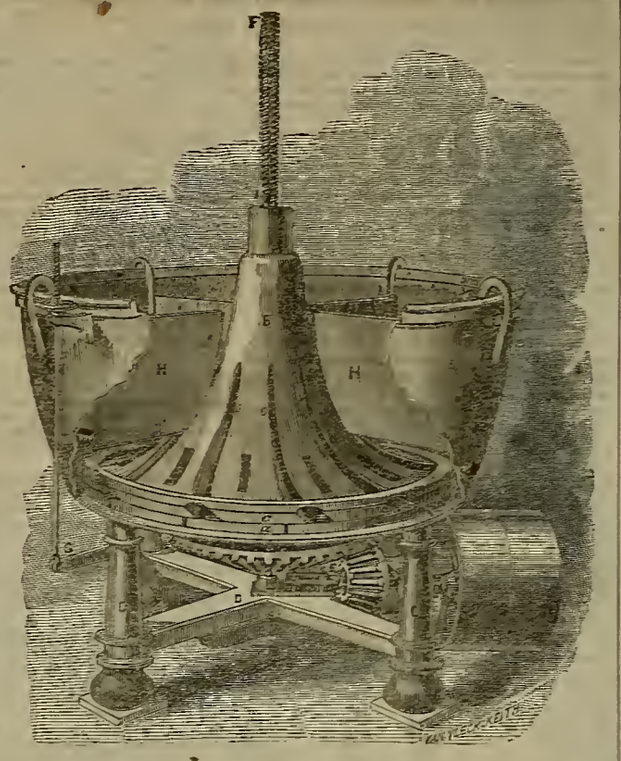
Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the ninth (9) day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. T. ATWOOD, Secretary.

—Office, No. 329 Montgomery street, San Francisco. my19

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings.



The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 118 and 132.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan one hundred and eighteen tons, and the Conical Pan one hundred and thirty-two tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works.

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

GYPSIES.—The Massachusetts *Ploughman* says that there is a band of about one hundred gypsies located on the dividing line between Cambridge and Somerville, Mass. They obtain their living chiefly by dealing in horse flesh, although some of the women gather considerable money from the credulous by telling fortunes. The band is regularly organized and governed by a queen, who was appointed some two years since for a term of seven years. She is married and has one child, and lives in great luxury compared with the style of her subordinates. Since their sojourn in Cambridge they have had a beautiful chariot built for her accommodation. The interior is provided with a bed upon which the queen can recline while traveling through the country, and there are also apartments provided for her husband and child.

TO HAVE SUNSHINE IN THE HOUSE.—Put the children to bed *early*, with light suppers, that they may sleep well. They get up bright-eyed, clear-headed, sweet-tempered with sunlight on their countenances. The effects are magical. So writes one who has tried it. She says that with well rested brains and limbs she does more in twelve hours than she used to accomplish in eighteen, and finds far less friction in the household movements now than then. She finds her own feelings and spirits are contagious. Try two extra hours of sleep for a week, and note the results.

FRENCH IRON CLADS.—It is said that an alarming discovery has been made at Toulon where the iron-plated frigate Province is undergoing repairs, which shows the danger that menaces the entire iron-coated fleet of France. the Province was fitted out for sea only fifteen months since, and already a great number of her plates are nearly consumed with rust. The Director of Naval Architecture is of opinion that if a composition be not discovered to prevent the action of rust, the iron-plated fleet must be renewed every five years.

Machinery.

SAVE YOUR MONEY AND BUY,

For $100!

HUNTER'S

Premium Concentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

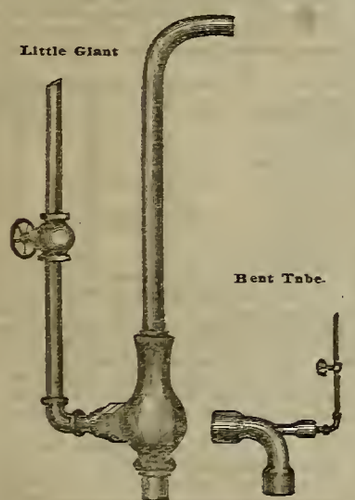
THE ABOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 125 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent. more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 113 Washington street, below Davis, where ALBERT JACOBS will fill their orders promptly.

ANDREW HUNTER,
17v12-tf Inventor.

TO PLACER MINERS AND OTHERS.



BREARS'

Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 144 Center street, New York.

Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee, or at W. T. GARRATT'S Brass and Bell Foundry, corner of Market and First Streets San Francisco, where the Pumps are on exhibition and for sale.

LIST OF PRICES:

LITTLE GIANT.		BENT TUBE.	
Brass	$65	Iron, 4 in oil	$100
		" 3 in. dl	75
		" 2 in. dl	50
		" 1½ in. dl	35
		Brass, 1 in. dl	25

13-v12

BAUX & GUIOD S
Separator & Amalgamator

Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD S Pan, are the following: The trifling cost for attendance. Its small cost: Its portability: The large quantity of pulp it can operate upon in a given time: It may be worked even weeks without stopping, as it is constructed to work continuously: The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them: They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county: The French Mill, Nevada City: Cluff's Gravel Cement Works, Nevada county: Waltman's Chlorination Works, Nevada, Cal.: Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Keugh & Tom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6tf

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self-acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,
Virginia City, Nevada.
13v11-tf Through Wells, Fargo & Co's Express.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 DEVOE, DINSMORE & CO.

Cotton-Filled Gum Belting,

3, 4, and 5-Ply,

FROM 4 TO 22-INCH,

IN LIBERAL SUPPLY.

FOR SALE BY

GILLIG, MOTT & CO.,

Corner C and Taylor streets,

VIRGINIA, NEVADA.

—AND—

Nos. 148 AND 150 J STREET,

19v12 tf SACRAMENTO, CALIFORNIA.

A RARE CHANCE FOR INVESTMENT.

THE PATENT RIGHT FOR SALE

FOR STATES, TOWNS AND COUNTIES.

For the Best Chimney Top

Ever invented. Numerous testimonials from Proprietors of Factories, Foundries, Steamers, Hotels, etc., can be shown, attesting to its usefulness in creating draft, saving the expense of high chimneys, and a great saving of fuel.

Pamphlets containing descriptive drawings and testimonials will be sent free, upon application by letter or otherwise to the patentee,

B. A. HENRIKSEN,
Or J. E. JORGENSEN.
12v12 3m No. 226 Kearny street, San Francisco.

Pacific Forge Company.

FORGING AND IRON WORK.

THE PACIFIC FORGE COMPANY HAVE JUST ERECTed, in this city, on Fourteenth street, near the Machine shop of the San Jose Railroad, a large establishment for the purpose of forging and working in wrought iron. Our hammer is the largest upon this coast, and we are prepared to manufacture, at short notice all kinds of heavy forgings, car axles, shafts, steamboat cranks, piston-rods, wagon axles, and other similar work. This is the first general shop of the kind erected in this State, and we solicit the patronage of the public. All orders executed at reasonable rates, and with promptness and satisfaction. 19v12-3m

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,
San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.
15v12-3m

BRUCKNER'S

Mechanical Roasting Furnace

AWARDED A

PREMIUM SILVER MEDAL

—BY THE—

The Mechanics' Institute.

THESE FURNACES ARE NOW MANUFACTURED AFter an improved mode of construction, which

GREATLY SIMPLIFIES THEIR OPERATION,

and afford a much larger oxydizing surface to the action of heat and atmosphere.

The weight of a Furnace nine feet long by four feet in diameter does not exceed one ton.

THE IMPROVED FURNACE

will soon be more fully described and illustrated in the columns of the MINING AND SCIENTIFIC PRESS.

Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
19v12 415 Market street, San Francisco.

BLAKE'S

QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,
Box 2077 San Francisco Post Office.
CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Rubber Belting,

WITH COTTON FILLING.

A FULL ASSORTMENT OF 3 AND 4-PLY, NOW IN store and for sale by

THOMAS H. SELBY & CO.,
17v12 3m Nos. 116 and 118 California street

FLORENCE
SEWING MACHINES!

COPY OF THE REPORT OF THE COMMITTEE OF AWARDS AT THE FAIR OF THE

AMERICAN INSTITUTE,

New York, 1865,

—TO THE—

Florence Sewing Machine Company,

FOR THE BEST FAMILY SEWING MACHINE.

HICHEST PREMIUM—COLD MEDAL!

REASONS:

1st.—Its simplicity and great range of work.

2d.—The Reversible Feed Motion.

3d.—The perfect finish and substantial manner in which the machine is made.

4th.—The rapidity of its working and the quality of the work done.

5th.—The Self-adjusting Tension.

The "Florence" was awarded the First and Highest Premium at the State Fair of California, the only Fair on the Pacific Coast at which any two double thread Sewing Machines were exhibited in competition in 1865.

The "Florence" received the only premium awarded by the Mechanics' Institute of San Francisco, in 1864 and 1865, to any Sewing Machine, Sewing Machine Company, or Agent. The claim of a competitor to a medal is without any foundation whatever.

Wherever the "Florence" has been brought in competition with other Sewing Machines, it has always been declared the best. It is the most simple, the most substantial, the most efficient, and its use is easily learned. Every Machine sold is guaranteed in the full sense of the word.

Send for Circulars and Samples of Work.

SAMUEL HILL, General Agent,
20v12-14w 111 Montgomery street, San Francisco.

Hungerford's Concentrator!

—FOR—

SAVING GOLD, QUICKSILVER,

—AND—

SULPHURETS.

MORGAN HUNGERFORD HAS MADE IMPORTANT improvements on the original Hungerford & Prater Concentrator, whereby the construction of the machine is simplified, and its operations rendered more complete and easy. It is made more effective by being self-discharging, and delivering the sulphurets more free from sand and dirt.

The Machine can be seen in operation at the Miners' Foundry, 21 First street. Call and examine for yourselves before accepting the opinions of persons more or less interested in other machinery.

Hours from 10 to 12 M. and 1 to 3 P. M.

It should be borne in mind that Mr. Hungerford is the original builder and maker of the celebrated Prater Concentrator, and his name should be sufficient guarantee to warrant the public in examining his new machine before purchasing elsewhere.

The new Concentrator will soon be illustrated and described in the Mining and Scientific Press.

Address: M. HUNGERFORD,
22v12-tf Miners' Foundry, San Francisco.

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MACHINERY OIL

IS SUPERIOR TO ANY IN USE, AND IS WARRANTE NOT TO GUM.

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COAL OILS AND LAMP STOCK.

21v12-3m9p

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A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

REYNEMANN & CO.,
25v11tf 311 and 313 California street.

Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK, EMbracing all Modern Improvements, suitable for Mining, Milling, or other purposes. Will be sold at Manufacturers' rates and charges.

Apply to A. E. CRANE,
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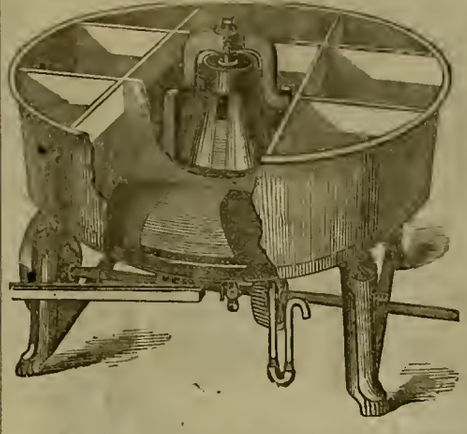
Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of EIGHT YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

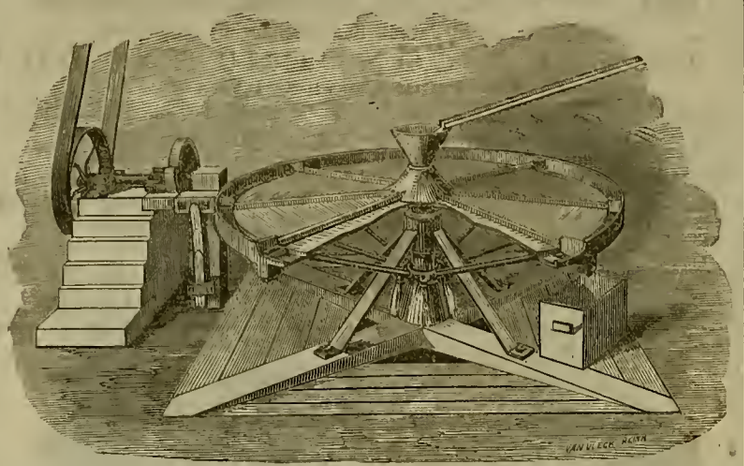
3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of ISRAEL W. KNOX, OR
W. A. PALMER, Inventors,
14v13-p12-j At the Golden State Iron Works, No. 19 First street, San Francisco.

VARNEY'S CONCENTRATOR,



With a disk 4 1-2 feet in diameter—total weight of Machine 350 pounds.

Is driven by one-eighth of a horse-power, and will concentrate eight tons of ore per day, and make the sulphurets clean. Larger ones do work in proportion to size.

☞ IT CAN BE SEEN IN OPERATION AT THE PACIFIC IRON WORKS, SAN FRANCISCO. ☜
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ARMY AND NAVY REVOLVER,

THE REMINGTON REVOLVER

Has been approved by the United States Board of Ordnance, and has so satisfactorily met the requirements of the Government, not only in the field, but in the official tests and examinations made by prominent officers of the Ordnance Department, that it stands at once the most popular, serviceable and approved arm of the kind in use. Upwards of 125,000 have been supplied to the Government within the past four years, for the land and naval service, furnishing ample evidence of the estimation in which the arms are held.

Simple and symmetrical in its entire construction, securely strong, of most modern improvement in mechanism and material; its unequaled range and penetration, together with its durability, are points in its favor now well known, and which challenge a comparison with any other pistol of the kind made in this country or in Europe.

The superior strength and capacity of the arm for constant and long use is apparent from the fact that the entire frame is constructed of a single piece of metal, thus preventing the extension of some portions of the frame, from the effect of firing—a serious defect in many pistols—in which the frame is composed of two or more parts.

The frame of the Remington Revolver furnishing a top STRAP or support above the cylinder, served to protect the base pin (on which the cylinder revolves) from any undue strain to which it would otherwise be subjected, and which would immediately render the line of fire from the cylinder to the barrel imperfect, thus destroying force and accuracy.

Another advantageous feature of the arm is the means afforded for the instantaneous removal of the cylinder from the frame. This not only facilitates the cleaning of the pistol, but by the quick adjustment of the cylinder, one pistol can be made as effectual as two—and, considering the difference of weight, it is far preferable—by simply possessing a spare cylinder loaded and capped to instantly replace the exhausted one.

The above is a general summary of the points of peculiar merit in the Remington Revolver which a trial of the arm is only needed to attest. For sale at Manufacturers' rates, by

ALBERT E. CRANE, Manufacturers' Agent,
16v12 310 Washington Street, up stairs.

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NEW MINING PUMP.

Excelsior Double-Acting Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind-mill, horse, or steam-power.

No. 1—Cylinder 2¾ in., stroke 6 in.
No. 2—Cylinder 3 in., stroke 7 in.
No. 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No. 5—Cylinder 6 in., stroke 18 in.
The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

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VARNEY'S
PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setters made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setters for themselves, at the PACIFIC FOUNDRY,
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American Double Turbine

THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction wherever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall. Let us know how much water you have either in miner's inches or cubic feet per minute, what fall you have, and what power you require. Write or send for circular to

KNAPP & GRANT,
—ALSO— San Francisco.

Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by KNAPP & GRANT,
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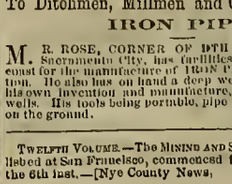
FAIRBANK'S



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CATTLE,
MINERS', AND
GROCERS'

Scales.

We would call the attention of Miners to our large scales for WEIGHING LOADED WAGONS, of from 10,000 to 20,000 lbs capacity.

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FAIRBANKS & BUTTERWORTH,
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IRON PIPE.

M. R. ROSE, CORNER OF 9TH AND K STREETS, Sacramento City, has facilities unsurpassed on this coast for the manufacture of IRON PIPE of every description. He also has on hand a deep well FORCE PUMP, of his own invention and manufacture, well adapted for oil wells. His tools being portable, pipe can be manufactured on the ground. 19v12

TWELFTH VOLUME.—The Mining and Scientific Press, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News.

THE PRISON COMMISSION.—The Trastees of this institution met in this city on Tuesday evening. The following report of Mr. Woodworth, the agent, for the past quarter, shows that the Commission is in active operation, and affords the reader some idea of its good objects:

Whole number of interviews with prisoners, before and after their release, 854; number of prisoners conversed with for the first time, 412; number assisted in various ways, 106; number furnished with board for periods varying from a single meal to three weeks, 15; number supplied with money, in small sums, generally those leaving the city for the interior, where they had friends or hoped to find employment, 14; with clothing, 4; number furnished with means to leave the city for various points, 14; number released from confinement, (in the City Prison), their further detention not being demanded by justice or the interests of society, such release being secured by the efforts, in various ways, of the Agent, 32; commutation of sentence secured in three cases; visits to the office of the Commission by discharged prisoners, 100; visits by the Agent to the State Prison, 5; to the County Jail, 44; to the City Prison, 81; addresses to prisoners, 41; letters written, 34; articles for publication, 5; money collected, $288.50, and about 1,000 business calls made. Correspondence has been opened with several societies similar in character in the East, and documents received from them, bearing on the work, which it is designed to place in the hands of persons who need and who desire information in regard to the nature and practicability of such enterprises as the one undertaken by the California Prison Commission.

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GREENBERG & MOORE,

Eagle Brass Foundry,

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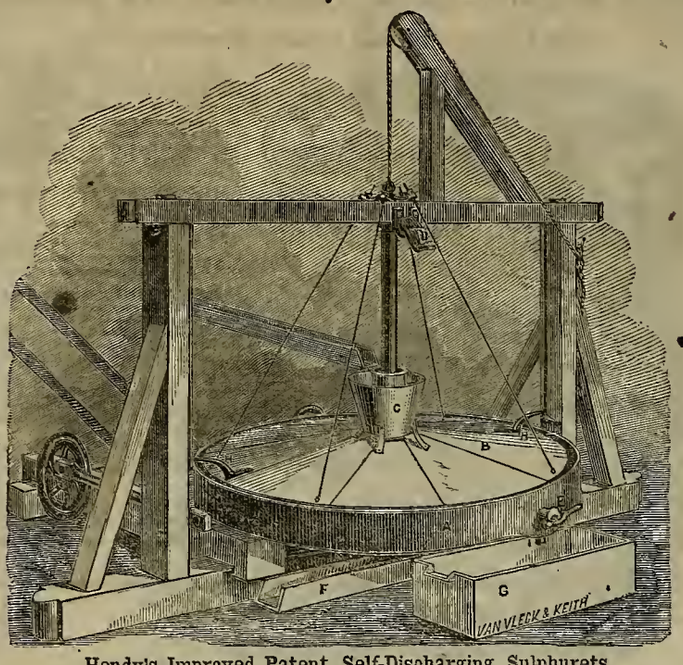

Hendy's Improved Patent Self-Discharging Sulphurets

PRATER CONCENTRATOR

Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " " "
U. S. REESE RIVER MILL, Austin, " "
UNION MILL, El Dorado County, near Mud Springs.
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OPHIR G. & S. M. CO., Newcastle, Placer County.
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CLIO MILL, Jacksonville, Tuolumne County.
CARROL & ASPINWALL MILL, Reese River, Nevada.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:

One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
Eight Concentrators for the Benton Mill, Bear Valley, Mariposa Co; ordered by Messrs Hodge & Bro, San Francisco.

They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.

☞ For explanation of the above engraving, and other particulars, send for a Circular.

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(Late Assistant Examiner in the U. S. Patent Office,)

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He will make Preliminary Examinations in the Patent Office, with a view to ascertain the Patentability of any invention that may be submitted to him for that purpose; will prepare the necessary papers for those who wish to make Applications for

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Already granted; will act as an Attorney in presenting Applications at the Patent Office, and in managing them to a final issue; will draw up Assignments; will examine into the condition of Rejected Applications when desired to do so, and undertake the prosecution of such as may be considered patentable, and do whatever else is usually done by Patent Solicitors.

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MINING LAWS AND FORMS.

Third Edition revised and enlarged.

Compiled by H. B. CONGDON.

THIS Edition contains all the laws of the *STATE OF CALIFORNIA* and *NEVADA TERRITORY*, relative to Mining Corporations together with the Mining Ordinances of Mexico, complete; Digest of Decisions of the Supreme Court Forms etc. 16 mo. flexible cloth, 192 pp. $2.50.

Published by H. H. BANCROFT & CO.

Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors.

SAN FRANCISCO, SATURDAY, JUNE 16, 1866.

VOLUME XII. Number 24.

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The Clear Creek Mines—Kern County.
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Editorial and Selected.
Mining Shareholders' Directory.
Stock Sales and Reports.
San Francisco Prices Current
New Mining and Other Advertisements, etc.

[Reported for the Mining and Scientific Press.]

California Academy of Natural Sciences.

REGULAR MONTHLY MEETING.

Monday Evening, June 4, 1866.

President in the Chair—eleven members present. Minutes of last meeting read and approved.

Donations to Cabinet.—Specimens of copper ore from Santa Clara county, and specimen of molybdenite from Coloma, El Dorado county, presented by Mr. Hanks; Land, fluviatile and marine shells collected in Nicaragua, at Panama, and in South America, by the late Thomas Bridges, presented by Mrs. Bridges; Mediterranean and Phillipine Islands shells, and two specimens of California birds, presented by Mr. Lorquin; Australian plants presented by Dr. F. Mueller; Lichens collected at Plover Bay, presented by Mr. Dall.

Donations to Library.—Publications of European Societies, through the Smithsonian Institution.

Messrs. Frederick Gulzkow, T. T. Gardner, Hugo Hocholzer, C. W. Lightner, Charles Bonner, W. A. Goodyear, Theodore Blake and C. R. King, were elected resident members.

Messrs. W. S. Keyes, E. B. Dorsey, W. W. Palmer, M. L. Stangrom, W. J. W. Harford, James T. Watkins, Jr., and Ferdinand Richthofen were proposed for resident membership

Mr. Dall stated that in the month of January last he visited Monterey for the purpose of collecting the shells of that locality; as the result of two weeks unremitting labor he succeeded in obtaining, without the use of the dredge, 219 specimens, by far a larger number of species than has heretofore been obtained by any other person.

Professor Whitney made some remarks on the absence of the Northern drift formation from the region west of the Rocky Mountains. It was shown that the observations of all geologists who have traversed the country west of the Missouri, agree in proving the entire absence of anything like Northern drift in the region in question. The explorations of the Geological Survey, and of Messrs. Gabb and Ashburner, in Oregon and British Columbia, as also those of Dr. Hayden in the Rocky Mountains, and Mr. Dall in Russian-America, were referred to in this connection.

The importance of the facts thus set forth in their relations to those of different geologists was commented on; Professor Dana's views on the formation of fiords were also obtained. Professor Whitney remarked in closing that he would, at a future time, take up this subject and treat it in a more thorough manner, as it is one of great theoretical interest.

Messrs. Whitney, Ashburner and Stearns were appointed a Committee to select periodicals to be subscribed for by the Academy.

Adjourned. H. N. Bolander, Secretary, *pro tem.*

Copperas.—Mr. Benj. Brady, 103 California street, advertises 200 barrels of copperas, sulphate of iron, for sale in lots to suit. Farmers and others, who use this article, will do well to call as above.

EXCELSIOR PUMP—HOOKER'S PATENT.

We give annexed an illustration of the "Excelsior Challenge Double-Acting Force Pump—Hooker's patent"—a California invention of very superior merit; pronounced so both by competent mechanics, and by numerous parties who have had practical experience in the use and durability of the same. As a

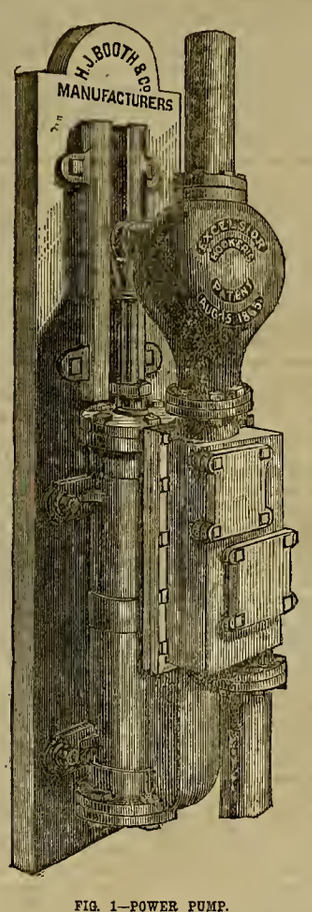

FIG. 1—POWER PUMP.

most important evidence of the value of this pump, we may state that the California Steam Navigation Company have selected it for their new and splendid steamer "Capital." The proprietors claim for it, and advertise that they will warrant that this pump will raise more water than any other of equal size, driven by the same power. It is readily placed in position; its valves are very simple in construction, so much so that it is said to be almost impossible for them to get out of order, while at the same time, the pump can be run at a very high rate of speed, which quality gives it a great advantage as a fire engine. These pumps are strongly and substantially made, and especially adapted for deep mine work. Some of them are now at work at a depth of 400 feet in the mines. By a careful inspection of the accompanying illustrations, it will be noticed that the valve chamber may be readily approached for repairs, examination or removal, by simply removing a "bonnet." Mechanics who have used other force pumps, will readily appreciate the great advantage to be derived from this arrangement.

Fig. 1 shows a power pump for mining or other heavy work, while Fig. 2 represents a hand pump for domestic purposes. All sizes on hand and for sale, adapted to any power; brass pumps for ships and steamers. Messrs. J. W. Britton & Co., 120 Front street, are agents, who will furnish any size pump and the proper fittings. Messrs. H. J. Booth & Co., Union

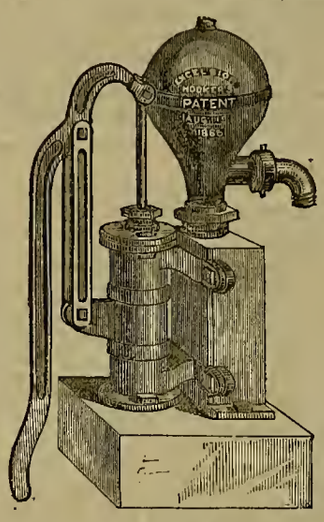

FIG. 2—HAND PUMP.

Works, First street, manufacture and sell these pumps. Liberal discounts always made to the trade. For further information, or for circulars, address through the post office, V. Cushing & Co., proprietors.

Origin of the Ague.—A new vegetable production had recently been discovered, and named the "ague plant." This is not a plant which cures the ague, as might be expected, but one that causes it. This plant is very minute, and it requires a good eye, aided by a good microscope, to find it; but when found, it cannot be said that it is "no great shakes," for it is the "genuine Shaker seedling" itself. Dr. Salisbury, of Cleveland, Ohio, announces in the *American Journal of Medical Sciences*, that fever and ague is caused by a minute plant, which is found where stagnant water has just dried away. The spores, or reproductive dust of this microscopic plant are diffused through the night damps, and being inhaled are the cause of that wide-spread disease—the ague. The habits of these minute plants completely accord with what was before known of the occurrence of miasma, and that they are the real cause of it has been shown by taking boxes of earth containing them to places where an ague was never known to occur. In about two weeks after the ague plant was taken there, well-marked cases of the disease appeared. The spores only rise in the night, and then to a hight varying with the locality, of from thirty to one hundred feet. This explains why night air brings on ague, and why elevated localities are free from it. After the ague is taken into the system the plant is propagated there, and the patient becomes a sort of animated hot bed.

MINERAL CURIOSITIES OF COLUSA COUNTY.

A rather curious combination of minerals is found in a claim known as the Manzanita mine, on Sulphur Creek, in Colusa county, about fifty-six miles due west from Marysville, and ninety-five from Sacramento, in the Coast Range of mountains. The first is a very rare specimen of *native gold* in cinnabar. This, we believe, has never been found before in California, except at this mine (although gold has been found in the slag of the New Almaden cinnabar mines, in Santa Clara county). At the Manzanita mine is also found a variety of limestone, in which free gold is plainly visible, and also bitumen in the same rock. There are also other rocks containing bitumen, as well as good indications of copper in this mine. Then there is quite a variety of salts, in solution, dripping from the rocks—copperas, arsenic, magnesia, and other salts. This, we think, constitutes the greatest variety of minerals ever found in one short tunnel of about ninety feet long by four and one-half feet wide

In front of this tunnel and in the creek, a few men worked and washed the gravel, and took out therefrom $300 in free gold and a quantity of cinnabar, from which was extracted about $300 worth of quicksilver. A short distance below this is another mine, known as the Oriental, where cinnabar, petroleum and bitumen are found in the same rock. The rocks in this vicinity seem to be of a volcanic nature, showing there has been great heat at some time in the past.

A short distance below this is quite an extensive sulphur mine, from which is now being taken large quantities of native sulphur of a good quality. There is also below this one or two places where boring is going on for oil, with good prospects, and now only waiting for more extensive machinery. There are, near by, three of the most valuable sulphur springs in the State, for the cure of rheumatism, and other diseases. These celebrated springs are well known as Simmons and Clark's and Wilber's Springs. At Wilbar's Springs a very remarkable gas spring is found, which has been burning for a number of months, and at times throws up a flame two or three feet high and three or four inches in diameter. There are also numerous other strange curiosities up and down this creek, which must be seen to be appreciated. Stages run from Colusa, in connection with the stages from Marysville, almost every day.

Emigration Across the Plains.—Reports from the East state that the emigration across the plains to California, for the present season, will not be so great as generally expected. Montana and Idaho are absorbing a large portion of the emigrant trains; while the intervening States and Territories are offering such inducements that thousands from the Eastern States, who had contemplated a trip across the plains, have concluded to set down in Missouri, Nebraska and Kansas. The lead mines and agricultural resources of Missouri are more inviting to many than the more distant gold and silver mines to the east of the Rocky Mountains. An accession of fully 10,000 voters is counted on for the State of Missouri.

Communications.

IN THIS DEPARTMENT we invite the FREE DISCUSSION of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

The Clear Creek Mines, Kern County.

BY OUR SPECIAL CORRESPONDENT.

[Continued from Page 354.]

EDITORS PRESS:—The first mill erected in the Mount Sinai district was that of the Pettis' Gold Mining company, who put up a "patent crusher," imported from Boston. This proved a failure, and the mill is now idle, but it ran long enough to prove the richness of the rock, and the owners intend replacing it with a stamp mill this summer.

Mr. R. H. Rogers, of San Francisco, has purchased, conditionally, some twenty or thirty claims, including one or two locations on the Antelope vein. He was putting up a 5-stamp mill for the purpose of testing them, which is probably running by this time. It is driven by a "Hoadley" portable engine of 15-horse power, and is erected in the most thorough and substantial manner.

The Olanche Silver Mining company, Mr. Farleigh superintendent, were engaged building a saw-mill, which they expected to have in successful operation in a few days. They have a 40-horse power "Little Giant" engine, and intend adding an 8 stamp battery for quartz, as soon as their saw-mill is fairly under way.

In the afternoon the whole party rode out to the Pi Ute district, situated in a range of slate formation, some three miles west of Claraville. This district is as yet entirely undeveloped. Though several fine-looking veins have been discovered which prospect well, none of them are opened more than three feet deep; yet, in this undeveloped condition, one of them, the Cherokee Dick ledge, which is nineteen feet wide on the surface, has been sold for $50,000, of which $600 was paid down to bind the bargain. The veins in this district run across the strata of the slate, are very well defined, with distinct and regular walls.

The next morning Mr. Burke and myself started for Walker's Basin, where we arrived about two o'clock. Four miles further, over a gently undulating country, covered with a scant growth of timber, we alighted at the famous

JOE WALKER MINE,

In what is called Quito Mining District, eight miles south of Havilah. The mine was located on the 20th of March, 1866, by Mr. Hamp Williams, by whom it was sold to Messrs. Burdett and McKidney, who afterwards sold a third interest to Mr. E. R. Burke, the present superintendent. At the time of my visit, a large, well-timbered shaft was down sixty-five feet on the vein, and the workmen were preparing to drift. The formation of this district, like that of all others south of the Kern River, with the exception of the Pi Ute, is granite. The course of the Walker vein is northeast and southwest, with a slight dip to the southeast. The narrowest point in the vein yet opened is three feet eight inches, and its breadth varies from that to seven feet, probably averaging from four to five feet. The walls are very regular and smooth, with a tough clay "gouge" on the foot or western wall. The rock throughout prospects well. The owners of this mine have secured some 1,500 acres of timber land, which will furnish them with wood for many years. Some other veins have been discovered in this district, but they are generally small, and no work has been done on any of them.

On the following morning I set out in company with Mr. Ostrom, of Havilah, to visit the mines in Cottonwood and Agua Caliente districts.

COTTONWOOD DISTRICT

Is located in the foot-hills east of Agua Caliente Basin, twenty miles southeast of Havilah. The formation and appearance of the country are quite similar to that of the Quito district. The veins in this district have been discovered and located by persons in the employ of the Enterprise Prospecting Company, composed of seven of the citizens of Havilab, in whose employ Capt. Titcomb and party have been traveling and prospecting for five months past. In this district this company own ten lodes, besides valuable locations elsewhere. At the time of our visit Capt. Titcomb was at work prospecting the Keystone, the largest and most promising of the company's claims in this district. The rock prospects quite well. There are no mills, arastras, or other means of crushing rock in this district. At the invitation of Capt. T. and Mr. Kelly we spent the night at their camp, and in the morning set out for the

AGUA CALIENTE DISTRICT,

Distant about three miles in an easterly direction. This district was discovered several years since, and over one hundred ledges have been located. A mill of five stamps, with engine of 30-horse power, well and substantially built, was erected some years since, but on account of miserable management proved a failure. It is expected to start it again this summer, under the management of Judge Walsh, the well-known prospector, and with fair reason to expect success. Several arastras have been running for the past year with very good success, and the hopes of the miners in regard to the district are very high indeed. I visited several veins, but few of which had been opened to any extent; but as far as opened many of them showed flattering prospects. One in particular, the Monarch, is from six to seven feet wide, and the surface rock prospects finely. All the others that I visited were small, but several of them prospect very well. I was informed that in the upper part of the district there were several ledges of equal size and prospects with the Monarch, but want of time forbid my visiting them. This district is well supplied with wood, and has sufficient water for steam and amalgamating purposes. I started on Monday morning for Keysville, on Kern River.

The most important enterprise in this district is that of the

MAMMOTH GOLD MINING COMPANY,

Who purchased the celebrated Mammoth lead, situated in a hill just back of the Keysville. This vein has been worked on the surface for over 2,000 feet, and immense quantities of gold taken out, but from some cause its owners have never managed to make it profitable. The present owners are erecting a 20-stamp water-mill, under the superintendence of Mr. McClellan. By the politeness of Mr. O. A. Sanborn, one of the present proprietors of the mine, I was shown the works. An old tunnel started by those who formerly worked the mine has been re-opened, and extended until it is now 440 feet into the hill, following the vein the whole distance. The course of the vein is northeast and southwest, with a slight dip to the southeast, and throughout this tunnel it varies in width from one to six feet, averaging three and a half; though in some places, in the upper works, the vein appears to have been much wider. A parallel tunnel, 130 feet below the old one, has been started by the present proprietors, and driven in a distance of 130 feet, but has not yet cut the vein. It is estimated that this tunnel will open the lead to a depth of 500 feet. After dinner I pressed on up the mountains some ten miles, to the

GREEN MOUNTAIN DISTRICT,

Situated on the summit of the western range of the Sierras, here known as Greenhorn Mountain. This district is the best supplied with timber and water, and possesses the most beautiful scenery and the finest agricultural lands of any mining district I have visited south of Visalia. The only mines in operation here at present are a series of ledges now owned by White & Butterfield, of San Francisco, and formerly by the Hudnatt Bros., who have been living in the district for the past ten years. The principal of these is that known as the Rough and Ready, which was opened by the former owners to a depth of 180 feet; but the works having been filled up by the floods of 1861–2, it had been abandoned until it came into the hands of the present owners, who have sunk on the vein to a depth of sixty-five feet, re-opening some of the old works, and showing the ledge with an average width of one foot. I was informed by Mr. Hudnatt that the rock from the old works had all paid from forty to ninety-six dollars per ton in arastras. Besides the R. and R., Messrs. Butterfield has also purchased the United States, Frenchtown, and several other promising veins. After spending the night and the forenoon of Tuesday with the hospitable miners of Greenborn, I set out for Long Tom, distant about sixteen miles in a northwesterly direction. The principal mine of this district is the

LONG TOM MINE,

Owned by Geo. D. Roberts & Co., who purchased it about a year since of the original locators, who discovered the vein about three years ago, and had been working it with arastras for about two years. The ledge is in granite, running northeast and southwest, and dipping to the westward at an angle of thirty degrees. It is opened to a depth of 110 feet by two shafts, from one of which the rock is hoisted by horse power with a whim, no water having yet been struck. The average width throughout these works is from six to seven feet. A 10-stamp mill, driven by a 20-horse power engine, built at the Miners' Foundry, is erected three-fourths of a mile below the mine. It is built after the Grass Valley style, with Attwood amalgamators, etc., and is capable of reducing twenty tons of quartz daily. From thirty-one days' run of this mill Mr. Roberts informed me that they have cleaned up $28,000 in gold, a result which they think the present run will largely improve upon, as they are now working what they consider much better rock. I spent the night with Mr. Roberts, and in the morning left for White River, where I arrived late in the evening. Directly at the village of White River is the mill of the

WHITE RIVER MINING CO.,

Of eight wooden stamps, driven by water-power, and capable of crushing four tons of quartz daily. It was employed on rock from the Josephine mine, situated some three miles distant, and which pays from seventy to one hundred dollars per ton. The whole affair is very crude, but as the rock is rich and easily worked it pays very well. The company own several veins, of which, however, the Josephine is the most thoroughly opened, and appears to be most valuable.

Half a mile below the village is the mill of Fleck & Piatt, consisting of a jaw crusher and two arastras, driven by a turbine water-wheel. The crusher is the invention of Mr. Fleck himself, and was described in the issue of the PRESS published two weeks since, under the head of California patents. It is said to be capable of reducing four tons of quartz daily.

Four miles below the village is the mill of Mr. John D. Carter, superintended by Mr. Rivers. Mr. C. owns seven different veins, and has been trying to work them heretofore by means of a water-mill, consisting of a jaw-crusher, and some of Beath's and Howland's pans. This, however, did not succeed to his satisfaction, and he is now building a fine 10-stamp steam-mill, which looks considerably more like work. Mr. C. is also building a private telegraph line to connect with that leading from Los Angeles to Visalia, thus placing his mill in immediate telegraphic communication with San Francisco. After looking at the mill, and conversing with Mr. Carter for an hour or two, we rode out in company with Mr. Rivers to visit the mines of the district, most of which are located in a range of slate hills at some distance from the river. After visiting several of the veins belonging to Mr. Carter, many of which appear well on the surface, though but one has been opened to any great depth, we passed on to the Josephine, owned by the White River company, which being the most thoroughly opened, and probably the best mine in the district, I have selected it as a type, and will describe it more minutely. The course of the vein is northwest and southeast, parallel with the strata of slate, with a dip to the northeast of forty degrees. It has been opened about fifty feet deep, showing a chimney of pay ore from one to two feet wide, and about fifty feet long, pitching to the northwest. The rock from this chimney is said to pay from seventy to one hundred dollars per ton, and as the mine contains no water, and may be cheaply worked, it certainly ought to pay handsomely. The people of White River are sadly in want of a post office, but as it seems to have been heretofore impossible to find a loyal man who was willing to accept the position of postmaster, they have been unable to obtain the proper accommodations. It is to be hoped that the authorities will soon make the necessary arrangements, for the village is directly on the line of the present mail route from Visalia to Havilah, and a post office here would require neither expense nor trouble to the Government.

Leaving White River about two o'clock in the afternoon, nothing of special interest occurred until I drew rein under the shade-trees in front of Mr. Daley's quiet and home-like hotel on Tule River, twenty miles distant on the Visalia road. The Tule River valley is certainly one of the loveliest farming sections it has ever been my lot to look upon. The banks of the stream are very low, affording easy means of irrigation, while the broad oaks scattered over the country in every direction give it a cool and shady appearance very inviting to strangers.

Leaving the pleasant retreat at an early hour yesterday morning, I arrived in Visalia a little after noon, and am now enjoying comfortable quarters in the Visalia Hotel, where my friend Harland does all that is in human power to make me feel at home, and succeeds so well that I shall probably stay here for several days.

Yours wanderingly, D.

DESPISE none, however humble; the rudest stone in the quarry may yet become the capstone of a beautiful structure.

[Written for the Mining and Scientific Press.]

Sierra Buttes Quartz Ledges.

MESSRS. EDITORS: Through rain and snow your correspondent has penetrated the mountains, and visited these valuable ledges. They are situated on the slope of the Buttes about half way from the level of the river to the summit in Sierra county. The Buttes consists of a cluster of bald and rugged peaks that lift themselves high above the surrounding ranges at an elevation of about 11,000 feet above the level of the sea. Their snow-clad summits are visible for many miles, and a near view presents a vision of grandeur in mountain scenery unsurpassed by any part of the Sierras. Though many visions of great beauty are presented to the observer, it does not belong to us to enter into a description of them, but to the mining interest our present letter must be confined.

SIERRA BUTTES QUARTZ MINING COMPANY,

Situated on the southern slope, is the oldest and at present the most valuable of all the mines here. The distance from Downieville is fourteen miles. The mountains are so rugged that wagon roads thus far have been an impossibility, and all travel and transportation of goods have been by mules. The mine is known in the country here as the Reis mill, on account of its being owned mostly by the Reis Brothers of San Francisco. Mr. F. Reis resides at the mine, and is superintendent of the works. The ledge or ledges upon which the mine is located was discovered in 1852 by some one now unknown. It was first worked by Mr. Sol. Woods, who let it out to Spaniards to be worked on contract. With their inexperience it did not give the promise of its present permanence and value, and the gentleman named was induced to part with his interest at a nominal sum. Since then the present owners have steadily developed it to its present condition, that is, one of the best mines on the coast. On our arrival at the mine we were kindly entertained, and after a bountiful repast, guided by Mr. W. A. Farish, the foreman of the works, candle in hand, we entered the levels and commenced our tour of sight-seeing. We found the mine to consist of three ledges, well defined and valuable in mineral deposits. The ledges are named Cliff, Æriel and Rose. The Cliff and Ærial are nearly parallel, running west and joining in the center of the hill. The dip of these ledges is to the north. The Rose ledge runs northwest by south, cutting the other ledges at an acute angle. On or near these ledges three main tunnels have been extended with respective drifts and chambers intersecting the ledges. The upper, lower and middle tunnels have a total length of 3,300 feet, besides many uncounted extents in sectional tunnels. The distance between the upper and middle tunnels is 240 feet; between middle and lower 220 feet. Between the middle and upper tunnel upon the Rose ledge, a body of good ore has been struck 240 feet high, with an average width of twelve feet, upon which workmen are now engaged in breasting. This body has already been taken out a distance of 600 feet. In the middle lead, where the Ærial and Cliff join, a body of mineral is in sight, running in a westerly direction 200 feet in length, with a thickness of from ten to twenty feet. In the lower level, 220 feet below, and at a distance of 1,200 feet from the mouth of the tunnel, the same body of rock is met still striking down. On the same level, the Æriel, before joining the Cliff, discovers a streak of mineral 250 feet in length, with a width of from five to ten feet. The quartz in the Æriel and Cliff is of similar character, a milkish color interspersed with brown sulphurets, which hold great quantities of free gold; it is also streaked with lines of ribbon rock. The wall rock is talcosa slate, and the hanging wall in places shows greenstone. The quartz of the Rose ledge is of different character, of a reddish cast, containing bright sulphurets and streaked with verdigris. This is the best paying of all. While speaking of the ledges, I forgot to state that they increase in both richness and extent as they descend. Two mills of twelve stamps each are in constant operation, making runs averaging sixty days. No amalgamating pans are used, copper plates and blankets take their

place. The tailings are worked on shares by a party of Italians, who have erected seventeen arastras below the mill, and make about $12,000 per year. The mills are all below the levels, and the rock passes down a cut grade upon which cars are so arranged that the loaded one hauls the empty one again to the depot. I desire to render my thanks to the superintendent and foreman for their continued kindness and consideration shown me during my visit.

THE INDEPENDENCE MINE.

Just a mile north of the Sierra Buttes mine, is on the same ledge, and though lacking the development of the last mentioned, is giving evidences of richness and extent, promising much in the future. The ledge here extends east and west, dipping to the north at an angle of forty-five degrees. There are three tunnels, one main one, however, situated at the lowest point on the slope. In this tunnel about 600 feet from the entrance, a deposit of mineral is met, 400 feet long by 42 feet wide, and at a distance of 400 feet below the surface, at this point, the tunnel bears east back toward the entrance directly on the ledge, showing mineral 500 feet in extent and twelve feet in thickness. The tunnel at this point is eighteen feet wide by twelve high. From the lower to the middle level above, an immense chamber has been excavated in which the eastern and western walls are of good rock. Between the middle and lower level is an extensive deposit of quartz, 300 feet long with average width of eight feet. This runs west from the point where the lower tunnel turns east. The middle level is entered from the south by a tunnel cutting it at right angles. The level runs east and west. In the eastern section of this level a body of mineral 120 feet high by seven feet wide has been opened, though its absolute extent is not yet known. In every direction from the different levels many large chambers have been opened, and the visitor is struck with wonder at the amount of labor and the results. The chambers and levels were full of laborers, and the noise of hammers and click of picks made a fine chorus. The mine is very much troubled with water, great quantities entering the roof. The rock is so hard and firm that no timbering except in the chambers is necessary. There are two mills, having together thirty stamps; at present only one mill is in operation. In this mill the batteries contain twenty-four stamps (580 pounds); copper plates and blankets are used in place of amalgamators. The mill is driven by two water wheels 72 feet 6 inches in diameter, with three feet breast. The tailings from the mill are worked on contract by three arastras. The rock in the ledge is the same as the Sierra Buttes mine, containing a great quantity of sulphurets; galena in small quantities is sometimes found. The present indications are most favorable for the value and permanency of the mine. The ledge is a true fissure, and is constantly growing in extent. The runs are of sixty days length. The clean up in February last was $13,421, in April, $13,532; last year, $98,400. Mr. E. Suid, a gentleman in every sense of the word, is the superintendent, and Mr. Thomas Phillips, the energetic and efficient foreman.

THE PRIMROSE,

About four miles north of the Sierra Buttes quartz mill, is supposed to be on the same ledge, as the indications are the same. The ledge is a good one, in some places over fifty feet wide, and will average at all points twenty. The rock yields fifteen dollars per ton, and is easily worked; a blast in three feet will throw down, it is said, fifty tons of rock. A tunnel 1,000 feet long has been run, entered by a shaft 160 feet perpendicular hight. A great fissure cuts the ledge about 100 feet from the shaft, and seems to have been the place of some great thermal spring. The disorganized and irregular character of the ledge at that point is proof of such an hypothesis. No work is done at the mine on account of want of machinery, which want will soon be attended to and operations will commence. Mr. P. A. Lamping, the banker of Downieville, is one of the principal owners. The length of this letter compels me to cease, although half is not told. In another letter the other interests of this section will be noticed. W.

Sierra county, June, 1866.

THE SIAMESE TWINS, according to the Raleigh (N. C.) *Standard*, are quite outside by two fourteen-year old negro girls, born in Anson county, N. C. The connection between these girls is closer than in the Siamese twins, there being more of the physical and mental organs common to each. The connection begins below the neck and terminates at the extremity of the spine. To touch one at any point of her body below the connection sends a sensation to the brain of each; while a touch of either above the connection is felt by that one only; but they can talk on different subjects at the same time.

ADVICES from New Zealand report a destructive flood and hurricane at Auckland, April 1st.

Mechanical.

AN INVENTION WANTED.—If any civilized inventor will get up a device for shutting doors without slamming, he will confer a great benefit on those who adopt it. Not one in thirty-four—by count—takes the trouble to prevent the slamming of doors, however heavy they may be. Of course, doors that are shut by springs ought to be light; but that is not the fashion; so there is needed a device to shut an abominably heavy door gently, and hold it securely. Cushioning will mitigate the nuisance; but a better action of the spring is needed. We think it may be got up if attempted by an inventor of genius and taste.—*American Artisan.*

Mr. Benj. F. Barker, of this city, has made an invention which exactly meets the above want. The spring is entirely concealed in the wood-work of the door, so as to admit of its being used anywhere. It is so constructed as to operate as a support, instead of tending to draw the panellings apart as most springs do. It is easily applied to any door; is simple, cheap, durable, and not at all likely to get out of order. Its power is so distributed along the motion of the closing door, that a gentleman's hat, when placed against an open door, will hold it open; while it will immediately close upon the removal of the hat, exerting its action until the door is completely closed, which is done without any slamming whatever—the power being exerted precisely in proportion to the degree of resistance. A door was hung at the Pavilion with one of these springs attached, during the last exhibition of the Mechanics' Institute in this city, and elicited the highest commendation from house-builders and others, who, without exception, so far as we heard, (and we had a very good opportunity to notice), pronounced it superior to anything of the kind ever before exhibited. We believe the inventor is willing to part with a portion of his interest to any party who will undertake to manufacture and introduce it. If the *Artisan*, "or any other man," is anxious to learn further with regard to this invention, he can do so by addressing Benj. F. Barker, San Francisco.

SACRAMENTO UNION IRON WORKS.—Not long since, the proprietors of this foundry, Messrs. Williams, Heilbron & Co., erected a substantial brick structure in place of the old wooden building, which stood below the grade of the levee, on Front street, between N and O streets, Sacramento. The new building is 40 by 46 feet, and three stories in hight. The first floor is occupied as the engine and store-rooms; the second story comprises the machine shop; the third story and loft being used for pattern making and storage. Adjoining the shop the company have a new office, with commodious yard and blacksmith shop. This is one of the oldest foundries in the State. Its pattern list shows that a great variety and amount of work has been performed. The shop is at present crowded with work, including orders for an engine for the steamboat "Pet;" one 20-stamp quartz mill, with 12-inch cylinder engine; one 10-stamp mill with 12-inch cylinder engine; a 10-stamp mill and water-wheel, and a large amount of jobbing and miscellaneous work. We esteem our acquaintance with the gentlemen and mechanics who conduct the business of this firm, and can recommend them and their work. The present company is composed of Messrs. W. R. Williams, H. F. Root, and A. Nielson.

FARMING ENGINES.—The ranchmen of California are wisely introducing machinery to take the place of high priced manual labor. The Golden State Foundry have just completed two staunch and well-built portable engines for driving threshing machines. Each engine is rated at from 12 to 15-horse power; cylinder 7-inch diameter, and 14-inch stroke. The entire engine and fly-wheel are solidly united to the boiler, which is mounted on wheels. The boiler is of locomotive style, about 12 feet in length, and the weight of all is about two tons. These engines show good workmanship, and are said to be light and superior in adaptation to imported ones. We believe that portable engines similar to these may be used to advantage for prospecting purposes in our mines.

TO RENDER WOOD UNSUSCEPTIBLE TO EXPANSION AND CONTRACTION.—Mechanics, miners and others, are much annoyed by the swelling and contraction of wood, especially when used for axe and pick-handles, for wheel felloes, etc. A practical man, who has paid much attention to this matter, gives his experience as follows:

"I ironed a wagon some years ago for my own use, and before putting on the tires, I filled the felloes with linseed oil; and the tires have worn out and were never loose. I ironed a buggy for my own use seven years ago, and the tires are now as tight as when put on. My method of filling the felloes with oil is as follows: I use a long cast iron heater, made for the purpose. The oil is brought to a boiling heat, the wheel is placed on a stick, so as to hang in the oil, each felloe for an hour for a common sized one. The timber should be dry, as green timber will not take oil. Care should be taken that the oil be not hotter than a boiling heat, in order that the timber be not burnt. Timber filled with oil is not susceptible to water, and the timber is much more durable. I was amused, some years ago, when I told a blacksmith how to keep the tires tight on wheels, by his telling me that it was a profitable business to tighten tires, and the wagon-maker will say that it is as profitable to to him to make and repair wheels; but what will the farmer, who supports the millwright and smith, say?"

ELECTRICITY IN A COTTON MILL.—The Lowell (Mass.) *Courier* of March 23d, says: "It is a general truth that friction develops electricity, and most workmen know that a machine belt at high speed by its friction with the air is highly electrified. It has for years been a common experiment for a workman to light gas burners by holding one hand to a fast going belt and the other to the open burner. This matter was curiously demonstrated in the Appleton Mills of this city on Wednesday. A strong smell of fire being noticed, the premises were carefully searched, and a small quantity of cotton lint inside a belt casing, was found on fire. The lint lay upon a beam which was within four inches of a belt some fifteen inches wide and moving two hundred and twenty revolutions a minute. In the beam was an iron bolt, the head of which was toward the belt. From the belt to the bolt was passing a stream of electric sparks, which had set the cotton lint on fire. After attending to this case Mr. Motley, the agent, opened the casing of a similar belt in another mill. The beam in this case was fourteen inches from the belt, but the stream of electric sparks was at once seen jumping across the beam, although it had not set fire to anything. Perhaps some of the cases of fire from supposed 'spontaneous combustion' are due to electricity from machinery. The subject is an interesting one for investigation, and probably a profitable one."

THE largest marine steam cylinder ever cast has been turned out successfully by John Roach & Son, at the Ætna Iron Works, New York city. It is 112 inches in diameter, and 12 feet length of stroke, and is for the new steamer Bristol, building for the Sound service. The triumph of American skill gives but another proof of our advancement in the manipulation of iron in this country. We have produced the largest wrought-iron solid fly-wheels, shafts, composition screw propeller, guns, and now the king of all steam-cylinders. With this cylinder on end, a round table placed in its center, would accommodate about thirty people.

The above cylinder is but two inches larger in diameter than the cylinders used in some three or four of the Pacific Mail Steamship Company's boats, and the length of stroke the same.

MAGNESIUM.—M. Deville lately communicated to the Academy of Sciences at Paris, the fact that magnesia, obtained by calcination from chlorida of magnesium, will, when exposed to the action of water for some months, acquire considerable consistency, and become hard enough to cut marble. A lamina of this magnesia of moderate thickness, is translucid like alabaster. With this substance M. Deville has been enabled to take casts, as if with plaster of Paris, only the former sets under water. A mixture of chalk and magnesia, in powder, made up into a paste with water, is good for molding, and will become exceedingly hard under water.

DESULPHURIZING ORES.—Messrs. Tait and Avis, of New York, have patented the process of desulphurizing sulphurets by a current of heated compressed atmospheric air, impelled by a suitable pump, in combination with a closed furnace containing the ore. Also the use in this process of nitric oxide gas in combination with the atmospheric air; also with the use of steam in combination with the heated air.

COMPRESSED AIR.—Compressed air, as a motor and medium for ventilating mines, has now been brought into practical and successful operation, and the day cannot be far distant when it will be in general use. Compressors are manufactured in this city, with which a pressure up to 220 pounds is readily attained. Practice at the Mount Cenis Tunnel has demonstrated that at the distance of two miles from the air receivers the loss of power is less than five per cent. In several places in Europe machinery in mines is driven by compressed air, which, when exhausted, cools and purifies the atmosphere. At the mines of the Cambria Iron Works, Johnstown, Penn., it has been successfully applied to driving coal-cutting machinery. Immense expenditures and great lose of time have heretofore been necessary to secure ventilation in mines by the sinking of shafts, and driving air entries, etc. By the introduction of compressed air these outlays can be almost entirely avoided, now that we have a power at hand available as steam for doing our mining work at points where steam cannot be used. We must seek out and set to work the best machinery for drilling the rock and cutting the coal. More than three years of steady work at the Mount Cenis Tunnel, and almost as long in English mines, demonstrates the fact that there are machines to be had which will do good work, and have them we must; if our own countrymen cannot furnish them we must import them or be behind the age. Is it not remarkable that in the department of mining and drilling rocks, few, if any, improvements should have been made, while in almost all other branches of industry the advance has been marked and regular. The time has now arrived for rapid development of the unbounded mineral wealth stored up in the bowels of our western world. That development should, and we trust will, be not only rapid but comprehensive and systematic. To accomplish this desideratum, mine superintendents must disenthrall themselves from the influence brought to bear upon them by the contracted ideas and clannish habits of Cornish miner laborers—perhaps of all men the most obstinate and troublesome to deal with.—*Am. Artisan.*

ARTIFICIAL STONE.—It is said that within the last two or three years, by a process of slow cooling, a durable artificial stone has been produced at several iron works in France and Belgium; and that this stone has been used for building purposes, and as paving stones for roadways.

THE GEOLOGICAL SURVEY OF INDIA has now been in operation for about ten years, under Mr. T. Oldham, LL. D., as director. It has thoroughly investigated and mapped out an area more than twice that of Great Britain, or 186,000 square miles.

IT is said that a machine for making ice has been invented in London, which will produce eleven pounds of ice in an hour, at a cost of not more than half a cent per pound.

AN IMPORTANT DISCOVERY in flax culture is announced in Australia, by which the same material is cleaned with but little labor, and at a slight cost.

OIL REFINERIES.—It is said that there is about 200 oil refineries in the United States.

SAGE BRUSH FOR FUEL.—We have frequently alluded to the growing importance of the sage brush of our Eastern and Southern plains as fuel for making steam. A late correspondent of the *Alta* of this city refers to this matter as follows:

Mr. Holt, of the Winnemucca Silver Mill, on the Humboldt river, Nevada, announces that he has used under his boilers, during the last four months, no other fuel than the large variety of the sage plant, which covers so vast an area in that country.

He assures us that it answers every purpose, and he has no objections except that it requires somewhat oftener feeding than the light cedar which is the firewood of that country.

With one horse or ox and an iron book the plant is readily pulled up by the root, which is equally good fuel as the stem and branches. It is used at once without seasoning. Sage brush is full of oil, burns with great flame, and holds fire long enough in its embers. The cost is one-fourth that of cedar wood at ten dollars a cord. The smaller sage plant can no doubt be utilized by compressing in a hay-press. Greasewood proves, on trial, a fuel scarcely inferior.

Thus it is that in the order of Providence well studied, man finds every provision is made for the development of whatever product may be found in any part of the world. And we have every reason to believe that some equally cheap and convenient material exists in our gold regions for the desulphurizing of ores now unavailable.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD

Friday, June 8.

AFTERNOON SESSION.

48 shs Chollar-Potosi at 212@217½ per foot.
6 shs Chollar-Potosi at 210@216 per ft, s 10.
1 sh Chollar-Potosi at 213 per foot. s 5.
8 shs Hale & Norcross at 980 per foot, s 30.
4 shs Hale & Norcross at 990 per foot.
2 shs Hale & Norcross at 990 per foot, b 3.
2 shs Hale & Norcross at 950 per ft, s 90.
4 hs Gould & Curry at 716 per foot—div. off.
4 shs Ophir at 300 per foot, b 3.
12 shs Ophir at 300 per foot, s 10.
36 shs Ophir at 300 per foot.
5 shs Yellow Jacket at 635@650 per foot.
1 sh Yellow Jacket at 625 per foot, s 30.
1 sh Yellow Jacket at 650 per foot, s 10.
8 shs Alpha, O. H., at 255 per foot, s 3.
8 shs Alpha, G. H., at 250 per foot.
14 shs Imperial at 107@108 per share.
5 shs Imperial at 107½ per share, s 30.
40 shs Overman at 30@29 per foot.
10 shs Overman at 26 per ft, s 30.
5 shs Bullion at 62½@57 per share, s 30.
33 shs Bullion at 58@57½ per share.
Amount of sales.....$ 31,160 00

Saturday, June 9.

2 shs Savage at 900@905 per foot, b 30.
1 sh Savage at 860 per foot, s 30.
60 shs Chollar-Potosi at 212½@194 per foot.
11 shs Chollar-Potosi at 210@196 pr ft, s 3.
10 shs Chollar-Potosi at 212 per foot. b 30.
16 shs Chollar-Potosi at 207@200 per ft, s 5.
10 shs Chollar-Potosi at 198 per foot. s 10.
6 shs Chollar-Potosi at 197½ per foot, s 15.
40 shs Daney at 8 per foot.
2 shs Belcher at 162½@165 per foot. b 10.
6 shs Belcher at 160 per ft.
1 sh Belcher at 160 per foot, b 3.
20 shs Hale & Norcross at 1000@945 pr ft, b 30
4 shs Hale & Norcross at 980 per foot.
18 shs Hale & Norcross at 960@940 pr ft, s 30.
12 shs Ophir at 305 per foot, b 10.
12 shs Ophir at 300 per foot.
60 shs Ophir at 297½@295 per foot, s 3.
36 shs Ophir at 307½ per foot, b 30.
4 shs Yellow Jacket at 640 per foot.
1 sh Empire M & M Co at 140 per sh.
5 shs Empire M & M Co. at 140 per sh, b 30.
20 shs Imperial at 112@110 per share.
30 shs Bullion at 58@57 per share, s 30.
6 shs Bullion at 62½@60 per share.
5 shs Bullion at 60 per share, s 3.
2 shs Confidence at 20 oer share.
10 shs Confidence at 20 per share, s 30.
8 sh Overman at 28@26½ pr foot
Amount of sales.....$ 54,930 00

Monday, June 11.

18 shs Yellow Jacket at 635@660 per foot.
2 shs Yellow Jacket at 645 per foot, s 30.
2 shs Yellow Jacket at 650 per foot, s 3.
1 sh Yellow Jacket at 660 per foot. b 30.
15 shs Hale & Norcross at 960@975 per foot.
4 shs Hale & Norcross at 965 per ft. s 3.
10 shs Hale & Norcross at 975@990, b 30.
6 shs Hale & Norcross at 980@985 pr ft, s 30
5 shs Chollar-Potosi at 200 per foot. b 30.
17 shs Chollar-Potosi at 187½@197½ pr foot.
3 shs Chollar-Potosi at 195 per foot, s 3.
9 shs Chollar-Potosi at 193 per foot, s 10.
28 shs Chollar-Potosi at 207½@205 pr ft, b 30.
6 shs Chollar-Potosi at 195@197¾ pr ft, s 30.
132 shs Ophir at 295@297½ per foot.
52 shs Ophir at 302½@305 per foot. b 30.
6 shs Belcher at 150 per foot, s 3.
1 sh Belcher at 162½ per foot
10 shs Imperial at 107½@110 per share, s 30.
5 shs Imperial at 111 per share.
5 shs Imperial at 110 per share, s 20.
20 shs Lady Bryan at 1½ per share, s 3.
85 shs Bullion at 59@57½ per share.
5 shs Bullion at 58 per sh, s 5.
5 shs Bullion at 60 per share, b 10.

AFTERNOON SESSION.

22 shs Chollar-Potosi at 200@210 per foot.
24 shs Ophir at 305@300 per foot, b 3.
36 shs Ophir at 303@300 per foot.
12 shs Ophir at 300 per foot, s 3.
12 shs Ophir at 307½ per foot, b 30.
3 shs Belcher at 164@165 per foot.
1 sh Yellow Jacket at 650 per ft.
5 shs Imperial at 110 per share, s 10.
5 shs Imperial at 110 per share, s 20.
5 shs Imperial at 110 per share, s 30.
10 shs Imperial at 110@109 per share.
5 shs Imperial at 108 per share, s 5.
10 shs Imperial at 109 per share. b 5.
12 shs Confidence at 22 per share.
2 shs Overman at 28 per foot.
70 shs Lady Bryan at 1½ per share.
Amount of sales.....$ 65,950 00

Tuesday, June 12.

36 shs Ophir at 302½@316 per foot, s 3.
80 shs Ophir at 305@320 per foot.
112 shs Ophir at 310 per foot, s 10.
80 shs Ophir at 310@330 per foot, b 30.
160 shs Ophir at 315 per foot, s 30.
12 shs Ophir at 320 per foot, b 10.
39 shs Chollar-Potosi at 207½@218 per foot.
5 shs Chollar-Potosi at 210 per foot, b 30.
3 shs Chollar-Potosi at 212½@207½ pr ft, s 3
17 shs Chollar-Potosi at 205 per foot, s 30.
5 shs Chollar-Potosi at 210 per foot, s 10.
14 shs Hale & Norcross at 962½@975 pr ft.
20 shs Hale & Norcross at 980 per foot, b 30.
1 sh Yellow Jacket at 645 per foot.
3 shs Yellow Jacket at 640 per foot, s 3.
4 shs Belcher at 166@170 per foot.
15 shs Overman at 27@26½ per foot.
20 shs Sierra Nevada at 3¾ per share.
44 shs Sierra Nevada at 4 per share, b 20.
15 shs Bullion at 57 per share.
5 shs Bullion at 58 per share, b 3.
25 shs Imperial at 109@108 per share, s 3.
25 shs Imperial at 107½@107 per share.
5 shs Imperial at 107 per share. s 30.
5 shs Confidence at 22 per share, s 3.
$5,000 Legal Tender Notes at 72¾ pr ct. s 30.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, June 16, 1866.

We have to report a continuance of the same ease in the money market noted for months past. The applications for discounts in Bank are, perhaps, rather more numerous, but the supply of money is abundent, and the rates remain as formerly—1@1¼ ₱ cent. per month for prime short puper end other good collateral. Mining share collaterals are still out of favor with capitalists. A few of the best—such as pay dividends—are, however, still made the basis of discounts but the weakness of the stock market, and the almost total demorulization of some shares that a short time since held a high position have greatly augmented the distrust of money lenders.

The latest telegraphic dispatches from London represent a less favorable condition of affairs than was reported a few days since, and although the Bank of England had reduced its rate of discount to 10 ₱ cent. per annum, additional failures in banking and commercial circles had occurred, and a feeling of decided uneasiness and insecurity continued to prevail both in London and upon the Continent. Preparations for war in Europe seem to be making much progress, both in the shape of armaments and also with regard to the means for meeting the expenses of the conflict. The best informed and most intelligent foreigners of this city, who, a short time since, were willing to believe that a war would not be the result of present negotiations, are now less sanguine, and feel that matters have assumed so threatening an aspect as to preclude the possibility of a peaceful solution of the difficulty

These difficulties abroad are not likely to materially affect us on this side, and, so far as we can learn, little or no capital invested here on foreign account is likely to be disturbed. A portion of the means of some firms will doubtless be sent home, but the amount required for this purpose must be inconsiderable, and the loss of it will not be felt.

Receipts of treasure from domestic sources since the 8th instant, have exceeded $950,000, making an aggregate of some $2,150,000, thus far, during the current month.

The bullion market has been very active this week, and bankers and others have taken at full rates all that was offered. The shipment East, per this steamer, promises to be unusually large. Gold Bars are ranging at 880@890, and Silver may be quoted at 1¾@2 ₱ cent. premium.

Legal Tender Notes closed last Saturday at about 73c., rose on Tuesday to 74¾c., seller 30, then were sold at 73@73½c, and since at about 73c. Gold was quoted in New York at 138 on the 11th, at 143 on the 12th, at 146 on the 13th, and at 148 on the 14th. Large shipments of specie abroad continue to be made, with gold scarce, and commanding ⅛th per cent. interest per day.

The Mining Share market was decidedly apathetic early in the week, but during the past few days rather more life has been exhibited, and a number of stocks are now in better request at enhanced rates. There is, however, an almost total absence of speculative inquiry among dealers, and transactions at the Board have been lighter than for six months past.

Crown Point has met with no sale this week, but is well held at about $1,150. During the week ending June 10th, 671 tons of ore were hoisted to the surface. It is said that considerable first-class ore has been disclosed recently, and that the south drift on the 300-foot level is looking particularly well. The average yield of 2,467 tons of ore last month, was $44 per ton, and 92 tons of first-class ore averaged $428 per ton.

Savage is in better favor, advancing from $860, seller 30, to $995, buyer 10, then selling at $1,010, and closing at $1,025 bid. During the week ending June 9th, 591 tons of second and third-class ores were hoisted from the mine, the upper stations yielding 105 tons, and the balance coming from the sixth station. Some little ore has been found in the north drift from the sixth, and the winze sunk 20 feet from the latter is said to show good ore throughout the whole distance. The body of ore in that level continues to extend toward the northwest and southeast, and two months' work has not yet exhausted two floors of the ten to the fifth station. The old shaft has been sunk 70 feet below the sixth level.

Hale & Norcroes has been sought for at higher figures, and some 80 feet were dealt in within a range of $962@$1,000, selling yesterday at $950@$960, ex-dividend of $50 per foot. A decided improvement has taken place recently in the *quality* of the ore met with in raising up from the 700-foot level. The drift from foot of incline (780-foot level), is vigorously under way.

Gould & Curry rose to $745@$750, and closed at about $760 bid. There is nothing new in the lower explorations, but the upper portion of the mine continues to hold out remarkably well. In January last the Superintendent of the company estimated that some 30,000 tons of ore could be taken from the upper levels. Since then more than that amount has been extracted, and from present indications it would appear that 25,000 to 30,000 tons yet remain.

Yellow Jacket rose from $635 to $660, receded to $637½, rallied to $675, and was dealt in yesterday at $690@$695. Private letters speak favorably of recent developments, and it is probable, that the present balance at the credit of the company will be materially increased at the close of the current month.

Ophir steadily advanced from $295 to $352½, and sold yesterday at $355@$340. The eighth floor of the ninth gallery still shows ore going south, but it is of low grade. The eighth gallery hee been cleaned out, and the development of the top of the ninth will thereby be much facilitated. Some 20 tons of ore per day are now taken from the fifth station, and receipts of bullion to the 12th inst. amounted to $21,000.

Chollar Potosi has been actively dealt in, and nearly 600 feet were sold within a range of $187½@$212, closing at about $203. The Piute station is producing about the same quantity of ore as formerly, and the New Santa Fe station continues also to look well. The Superintendent reports, "in other parts of the mine no material change," also remarking, "it is pleasing to mention that the mine generally presents a more flattering appearance than for some time past." The first station drift from the new shaft is in some 475 feet, but recent indications are thought to be less encouraging than they were last week. During the week ending 9th inst. 648 tons of ore were sent to custom mills.

Alpha rose from $300 to $350, declined to $320, and then sold at $250.

Belcher steadily advanced from $160 to $194, and was dealt in yesterday at $190@$195.

Empire Mill and Mining Company was sold at $140@142½, seller 10, closing at $150 asked.

Imperial receded from $112 to $107, rose to $122, and sold at the close at $117@$110. It is thought that some 10,000 tons of ore (worth $25 to $30 per ton), may yet be found above the sixth level of the Holmes mine.

The aggregate sales of Stocks and Legal Tender Notes since Saturday last, amounted to $262,822.

AFTERNOON SESSION.

1 sh Chollar-Potosi at 207½ per foot.
1 sh Chollar-Potosi at 205 per foot.
1 sh Chollar-Potosi at 201 per foot, s 3.
1 sh Chollar-Potosi at 200 per foot, s 5
2 shs Chollar-Potosi at 199 per foot.
2 shs Chollar-Potosi at 198 per foot, s 3.
5 shs Chollar-Potosi at 198 per foot.
1 sh Chollar-Potosi at 198 per foot, b 5.
1 sh Chollar-Potosi at 195 per foot.
12 shs Ophir at 315 per foot, s 3.
12 shs Ophir at 320 per foot, b 30.
24 shs Ophir at 312½ per foot.
48 shs Ophir at 300 per foot, s 10.
24 shs Ophir at 311 per foot, s 3.
24 shs Ophir at 312 per ft.
1 sh Yellow Jacket at 645 per foot, s 3.
2 shs Yellow Jacket at 640 per foot, b 3.
5 shs Yellow Jacket at 640 per foot, s 3.
2 shs Yellow Jacket at 640 per foot.
1 shs Yellow Jacket at 637½ per foot, s 3.
1 sh Belcher at 175 per foot.
1 sh Belcher at 172½ per foot.
20 shs Alpha, G. H. at 300 per foot.
2 shs Hale & Norcross at 980 per foot.
1 sh Savage at 925 per foot, b 30.
15 shs Overman at 26 per share.
15 shs Overman at 26½ per share.
5 shs Overman at 27 per share, b 10
5 shs Overman at 24½ per sh, s 30.
15 shs Overman at 27 per share.
1 shs Imperial at 108 per share.
5 shs Imperial at 103½ per share, 4 3.
$ 1,500 Legal Tender Notes at 73 per cent.
Amount of sales.....$ 79,614 00

Wednesday, June 13.

24 shs Ophir at 315@320 per foot.
60 shs Ophir at 320 per foot. s 5.
12 shs Ophir at 320 per foot, s 10.
24 shs Ophir at 330 per foot, s 30.
12 shs Ophir at 322½ per foot, s 3.
37 shs Chollar-Potosi at 190 per foot.
7 shs Chollar-Potosi at 195 per foot, c.
2 shs Chollar-Potosi at 195 per foot, s 3.
68 shs Chollar-Potosi at 194@196 per foot.
8 shs Alpha, G. H., at 310 per foot. s 3.
4 shs Alpha G. H., at 320 per foot, s 3.
12 shs Alpha at 350 per foot.
4 shs Alpha, G H, at 350 per foot, s 3.
8 shs Alpha, O. H., at 350 per foot, b 3.
4 shs Alpha, G. H. at 340 per foot.
4 shs Alpha, G. H., at 350 per foot, b 5.
1 sh Yellow Jacket at 640 per foot, b 3.
4 shs Yellow Jacket at 640 per foot.
6 shs Yellow Jacket at 645 per foot.
1 sh Yellow Jacket at 645 per foot, s 3.
4 shs Yellow Jacket at 640 per foot, s 30.
1 sh Yellow Jacket at 645 per foot, s 30.
2 shs Savage at 925 per foot.
1 sh Savage at 945 per foot, b 30.
1 sh Savage at 900 per foot, b 30.
5 shs Hale & Norcross at 985 per foot.
8 shs Hale & Norcross at 980 per foot.
2 shs Hale & Norcross at 995 per foot.
4 shs Hale & Norcross at 1000 per foot.
1 sh Belcher at 200 per foot, b30.
3 shs Belcher at 180 per foot.
12 shs Gould & Curry at 750 per foot.
4 shs Gould & Curry at 745 per foot.
5 shs Imperial at 110 per share.
10 shs Imperial at 110 per share, b 3.
5 shs Imperial at 112½ per share.
10 shs Imperial at 115 per share.
10 shs Overman at 27 per share.
20 shs Sierra Nevada at 3 per share.
10 shs Bullion, at 55 per share, s 30.
$10,000 Legal Tender Notes at 74¾ pr ct, s 30.

AFTERNOON SESSION.

4 shs Gould & Curry at 750 per foot,.
8 shs Gould & Curry at 745 per foot.
2 shs Chollar-Potosi at 197 per foot.
5 shs Chollar-Potosi at 201 per foot, s 3.
5 shs Chollar-Potosi at 202 per foot.
5 shs Chollar-Potosi at 202½ per foot.
5 shs Chollar-Potosi at 202 per foot, b 2.
2 shs Chollar Potosi at 205 per foot, b 30.
8 shs Chollar-Potosi at 200 per foot, s 3.
16 shs Chollar-Potosi at 200@202 per ft.
1 sh Yellow Jacket at 655 per foot.
1 sh Yellow Jacket at 675 per foot.
4 shs Alpha, O. H. at 335 per foot.
4 shs Alpha, O. H., at 327½ per foot.
2 shs Hale & Norcross at 1000 per ft, b 3.
24 shs Ophir at 330 per foot.
12 shs Ophir at 330 per foot, s 10.
1 sh Belcher at 180 per foot.
60 shs Sierra Nevada at 3 per share.
40 shs Sierra Nevada at 3¼@3¾ per sh.
10 shs Imperial at 117½ per share, b 3.
5 shs Imperial at 120 per share.
5 shs Imperial at 120 per share, s 30.
10 sbs Imperial at 121 per share.
30 shs Imperial at 122 per share, s 3.
10 shs Imperial at 121½ per share.
10 shs Imperial at 120 per share, s 30.
5 shs Imperial at 121 per share, s 10.
10 shs Confidence at 24 per share, s 30.
10 shs Confidence at 28 per sh.
10 shs Confidence at 28½ per share.
10 shs Confidence at 29 per sh, s 3.
10 shs Confidence at 27 per share, s 30.
20 shs Confidence at 30 per share.
5 shs Overman at 27½ per share.
5 shs Overman at 29 per share.
$5,000 Legal Tender Notes at 74¾c, s 30.
Amount of sales .....$ 67,302 00

Thursday, June 14.

24 shs Ophir at 325 per foot.
12 shs Ophir at 330 per foot, s 3.
12 shs Ophir at 330 per foot, s 30.
12 shs Ophir at 340 per foot, b 30.
24 shs Ophir at 335 per ft.
12 shs Ophir at 340 per ft, b 3.
24 shs Ophir at 350 per sh, b 30.
36 shs Ophir at 340 per foot.
12 shs Ophir at 340 per foot, s 3.
60 shs Ophir at 342½ per foot.
7 shs Yellow Jacket at 675@677½ per ft.
36 shs Chollar-Potosi at 201@201 per foot.
5 shs Chollar-Potosi at 203 pr tt, b 5.
1 shs Chollar-Potosi at 201 per foot, s 10.
2 sh Obollar-Potosi at 207@210 pr ft, b30.
5 shs Chollar-Potosi at 202@202½ pr ft, s 3.
2 shs Savage at 935 per foot.
2 shs Savage at 975 per foot, b 30.
2 sh Savage at 950 per foot.
3 shs Savage at 960 per foot.
7 shs Savage at 1000 per foot, b 30.
1 sh Savage at 990 per foot, b 10.
4 shs Gould & Curry at 750 per foot.
4 shs Alpha, O H, at 320 per foot,
4 shs Alpha, G. H., at 325 per foot.
2 shs Empire M & M Co. at 140 per sh.
3 shs Empire M & M Co. at 142 per sh, s 10.
5 shs Imperial at 122 per share, s 30.
4 shs Empire M & M Co. at 121 pr sh.
5 shs Imperial at 121½ per share.
2 shs Imperial at 121 per share.
10 shs Imperial at 120 per share.
5 shs Imperial at 119 per share.
1 sh Imperial at 120 per share.
10sh Imperial at 118 per share.
3shs Imperial at 121 per share.
shs Overman at 29 per share, s 10.
10 shs Confidence at 29 per share.
41 shs Confidence at 30 per share.
15 shs Confidence at 30 per share, s 3.
10 shs Confidence at 29 per share, s 10.
10 shs Confidence at 31 per share
10 shs Confidence at 34 per ft, b 30.
11t shs Bullion at 60 per share.
70 shs Sierra Nevada at 3¼ per share.

AFTERNOON SESSION.

1 sh Yellow Jacket at 662½ per foot.
1 sh Yellow Jacket at 665 per ft.
3 shs Yellow Jacket at 670 pr ft.
9 shs Yellow Jacket at 675 per foot.
2 sh Chollar-Potosi at 200 per foot, s 30.
3 shs Chollar-Potosi at 201 pr ft.
2 shs Chollar-Potosi at 2 0 per ft
2 shs Chollar-Potosi at 205 per ft, b 30.
1 shs Chollar-Potosi at 195, s 3.
2 shs Chollar-Potosi at 199 per foot.
1 sh Belcher at 190 per foot, s 3.
1 sh Belcher at 195 per foot.
2 shs Ophir at 340 per foot.
4 shs Ophir at 340 per foot.
5 shs Ophir at 340 per foot.
1 sh Ophir at 340 per foot.
5 shs Bullion at 30 per share, s 30.
30 shs Sierra Nevada at 3½ per share.
7 shs Imperial at 118 per share.
6 shs Imperial at 119 per share.
3 shs Confidence at 22 per share, s 3.
5 shs Confidence at 22 per share, s 3.
7 shs Confidence at 33 per share.
5 shs Confidence at 34 per share.
Amount of sales..... ...$ 51,840 00

Friday, June 15.

163 shs Ophir at 340@325 per foot.
132 shs Ophir at 325@342½ per foot.
150 shs Ophir at 330@355 per foot, b 3.
129 shs Ophir at 342@345 per foot.
96 shs Ophir at 355 per foot, b 30.
4 shs Savage at 990@1010 per foot.
13 shs Yellow Jacket at 675@690 per ft.
1 sh Yellow Jacket at 705 per foot, b 30.
3 shs Yellow Jacket at 680@682½ pr ft, s 30.
3 shs Yellow Jacket at 695 per foot.
25 shs Imperial at 117@112½ per share.
5 shs Imperial at 115 per share, b 20.
25 shs Chollar-Potosi at 197@200 per foot.
2 shs Hale & Norcross at 960 per foot.
8 shs Alpha, G H, at 275 per foot, s 30.
15 shs Belcher at 195@ 90 per foot.
2 shs Belcher at 195 per foot, b 30 and b 10.
15 shs Overman at 28 per share.
126 shs Lady Bryan at 2½ per share.
20 shs Confidence at 31 per share.
$30,000 Legal Tender Notes at 73c, s 30.
$10,000 Legal Tender Notes at 73¼ pr ct.
Amount of sales.....$140,138 00

MINING SHAREHOLDERS' DIRECTORY,

[Compiled for every issue, from advertisements in the Mining and Scientific Press and other San Francisco Journals].

Comprising the Names of Companies, District or County of Location; Amount of Assessment; Date of Meeting; Day of Delinquent Sale, and Amount and Time of Payment of Dividends.

NAME AND LOCATION.	AMT OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE
Arizona Copper Co., Arizona Ter., 6c		July 7	July 21*
Arbitrios, Mexico, $1 50		July 12	Aug 13*
Alpha, Gold Hill, $20		May 25	June 25
Alameda Coal M Co, $2		June 27	July 21
Boston Copper, 50c		June 22	July 18*
Bunker Hill, El Dorado co., $1		May 23	June 11
Blue Ledge G & S M Co		Meeting	June 18
Blue Ledge G. & S. M. Co., El Dorado co., $1		July 14	July 30
Cosala S M Co., Sinaloa, Mex., $1		June 30	July 17*
Crocket Con., Pencrucita co, $1		June 23	July 10*
Caprinda, Santa Clara co., $1		June 12	July 2*
Capitola, 10c		June 15	July 2*
Cole, Silver, $1		June 11	July 5
Crown Point			Dividend
Confidence S M Co, Storey co., Nev., $25		July 10	July 31
Diana G & S M Co., Lander co, Nev., $5		July 20	Aug 10*
Dun Fairie, Alamos, Mex., $1		June 6	June 23*
Diamond Cop., Del Norte co, $1		May 26	June 21
Daney G. & S. M. Co., Lyon co., Nev., 75c		July 14	Aug 6
Eagle, Austin, Nev., $1		June 16	July 6*
Evoon Cons. Cop., Del Norte co., 25c		June 6	July 1*
Geo. Washington, Alpine co., $1.00		June 9	June 26*
Great Basin, Humboldt co., Nev., 9c		June 12	July 2*
Green, Storey co., Nev		Annual Meeting	June 6*
Gold Hill, Storey Co., Nev., $1		June 13	July 10*
Hanscom Copper, 30c		June 29	July 16*
Imperial S. M. Co		Annual Meeting	June 26
Keystone M Co., Calaveras co., $10		June 28	July 16
Latrobe T. & M. Co., Storey Co., Nev.		Annual Meeting	July 2*
Leland, Arizona, 25c		June 30	July 6*
Lady of the Lake, Arizona, 25c		June 30	July 16*
Lady Bell, Low Divide, Cal		June 16	July 5*
Lady Bryan, $1		June 30	July 16
Leland, Arizona		Annoni Meeting	July 2
Lady of the Lake, Arizona		Annual Meeting	July 2
Mina Rica de las Flores, $1		June 19	July 16*
Morning Star		Meeting	June 29
Nonpareil G. M. Co., Tuolumne co., $1		July 9	July 31*
North American Tin, Durango, Mex., 40c		June 22	July 9*
Nuestra Sra de Guadelupe, Durange, Mex., $1		June 2	Je 30*
Ophir of the Colorado, Arizona, 25c		June 26	July 16*
Old Colony, Austin, Nev., $3		June 18	July 9*
Ophir S M Co		Meeting	June 29
Providence		Annual Meeting	June 20*
Rippon, Alpine co., Cal., $1		June 11	June 26*
Retugio M. Co., Mex., $3		July 16	Aug 10
Sapphire, Storey co., Nev., $5		June 23	July 17*
Silver Queen, Lander co., Nev., $1		June 23	July 23*
Siskiyou M Co., Siskiyou co		Meeting	June 14
Simpson & Bosselle Carson Valley, $1		June 9	June 29*
Sierra Valley, Plumas co., $1		May 31	June 18*
Sierra Nevada, Storey co, Nev., $1		May 7	June 6
Siskiyou M Co., Siskiyou co., $1 5		Sale	June 16
Sacramento and Meredith M Co		Meeting	June 20
Salambo Copper, Tuolumne co., $1		July 10	July 31
Triumfo G. & S. M. Co., L. C., $1		July 12	July 25
Triumfo G. & S. M. Co., L. C., $3		July 12	July 25
Table Mountain Copper		Meeting	June 11
United States, Storey co., Nev., 50c		May 26	June 13*
Union Mattole Oil co., Humboldt co., $5		July 16	Aug 20*
Ventana G. & S. M. Co., Mex. $2.75		June 19	July 10
Yankee Blade, $25		June 18	July 9*

*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 76	$ 78
Cov. Legal Tender Notes	72½	73
State Bonds, 5 ₱ cent	85	87
San Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	..	..
San Francisco Bonds, 1858, 6 ₱ cent	72	73
Sacramento City Bonds, 6 ₱ cent	18	..
Sacramento County Bonds, 6 ₱ cent	58	60
Marysville Bonds, 10 ₱ cent	75	82
Stockton Bonds, 10 ₱ cent	80	85
Yuba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	70	80
California Navigation Co	50	58
State Telegraph Stock	33	35
San Francisco Gas Co	112	115
Sacramento Gas Co	..	75
Spring Valley Water Co	68	69
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	45	50
Central Railroad Co	..	..
North Beach and Mission	48	50
MINING STOCKS.		
Alpha	$275	$280
Bullion, G. H	62	65
Ophir	355	360
Gould & Curry	790	800
Empire M. & M. Co	140	145
Savage	1000	1015
Challar-Potosi	198	200
Hale & Norcross	960	965
White & Murphy	....	....
Sierra Nevada	4	5
Yellow Jacket	690	695
Overman	27	28
Crown Point	1000	1100
Antelope	....	....
Emeralda	1	5
Real del Monte	....	....
Buckeye	....	....
Dick Sides	....	....
Imperial	112	113
Zilna	....	....
Cedar Hill Tounel	....	....
Wide West	....	....
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....

San Francisco Market Rates.

WHOLESALE PRICES.

FRIDAY, June 15, 1866.

Flour, extra, ₱ bbl	6 00 @ 6 25
Do Superfine	5 50 @ 5 75
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	1 75 @ 1 80
Oats, choice, ₱ 100 lb	1 80 @ 1 90
Barley, ₱ 100 lb	90 @ 1 00
Beans, ₱ 100 lb	3 50 @ 4 00
Potatoes, ₱ 100 lb	60 @ 1 15
Hay, ₱ ton	8 00 @ 14 00
Live Oak Wood, ₱ cord	8 00 @ 10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra, dressed, ₱ lb	12½@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ 00
Hogs, dressed, ₱ lb	12 @ —
GROCERIES, ETC.	
Sugar, crushed, ₱ lb	-- @ 14
Do Cbina	10 @ 12
Coffee, Costa Rica, ₱ lb	— @ 23
Do Rio	22½@ --
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	9 @ 10
China do	7 @ 8
Coal Oil, ₱ gal	75 @ 80
Candles, ₱ lb	22 @ 24
Ranch Butter, ₱ lb	37½@ 40
Isthmus do	35 @ 45
Cheese, California, ₱ lb	12 @ 18
Eggs, ₱ doz	40 @ 50
Lard, ₱ lb	18 @ 20
Ham and Bacon, ₱ lb	20 @ 22½
Shoulders	20 @ 22
Retail Prices.	
Butter, California fresh ₱ lb	45@ 50
do pickled ₱ lb	38@ 40
do Oregon	35@ —
do New York, ₱ lb	50@ —
Cheese, ₱ lb	25@ —
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	— @ 50
Lard, ₱ lb	22½@ 25
Hams and Bacon, ₱ lb	22½@ 25
Cranberries, ₱ gal	75@ 1 00
Potatoes, old, ₱ lb	1@ --
do New, ₱ lb	2@ —
Tomatoes, ₱ lb	@ —
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	3@ 8
Pears, table ₱ lb	8@ 25
Plums, dried, ₱ lb	20@ 22
Peaches, dried, ₱ lb	16@ —
Oranges, ₱ doz	50@ —
Lemons, ₱ doz	75@ —
Chickens, apiece	87@ 1 12
Soap—Pole & C. O	8@ 10
Castile	14@ 15

City College Laboratories,

Southeast Cor. Stockton and Geary sts.

Practical and Analytical Chemistry and Metallurgy.

THOMAS PRICE,

Professor of Chemistry,

(Formerly of the Normal College, Swansea.)

WILL GIVE PRACTICAL INSTRUCTIONS IN QUALITative and Quantitative Analysis and Assaying. The course qualifies students for the application of Chemistry to METALLURGY, MANUFACTURING ARTS, and MINING PURPOSES.

PHARMACEUTICAL and TECHNICAL CHEMISTRY, such as is required by Medical and Pharmaceutical Students, will be taught to such students as may require it.

Course of General Chemistry.

Evening Lectures will be delivered every Tuesday, at half past seven o'clock, P. M., in the Philosophical Hall of the College, without extra charge to the students in the Institution.

On and after the 14th of February, the Laboratories will be open every day, except Sundays, from 8 A. M. to 5 P. M. For further particulars, address

REV. P. V. VEEDER,
Principal of the City College.
6v12tf Or at 406 California Street.

SACRAMENTO SEMINARY.

BOARDING SCHOOL

FOR YOUNG LADIES,

Tenth Street, between F and G.

SACRAMENTO, CAL.

Session commenced January 8, 1866.

MR. AND MRS. HERMON PERRY,
7v12tf Principals.

SANTA CLARA COLLEGE, S. J.,

SANTA CLARA, CAL.

Conducted by the Fathers of the Society of Jesus.

The FIFTEENTH ANNUAL SESSION of this College will commence on

Monday, August 28th, 1865.

TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months..... $350

For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.

3v11 REV. A. MASNATA, S. J., President.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLAture of the State of California, entitled "An Act concerning Corporations," passed April 22, 1854, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD..... $750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of Insurance effected during the year, and which remained in force December 31, 1865:

Fire..... $12,973,949
Marine..... 484,408

This Company commenced underwriting Marine Risks, August 1, 1865:

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. W. Wilson,	O. W. Bell,
Alex. Weill,	M. Cheesemun,	Chas. Mayne,
Abm. Seligman,	Wm Hooner,	Lloyd Tevis,
Anson G Sules,	John B. Newton,	T. L. Barker,
John C. Bray,	Edward Martin,	Jas. De Frenery,
A. Hayward,	D O. Mills,	Wm. Sherman,
D W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer,	L. B. Benchley,	Alfred Burel,
D. J. Oliver,	Moses Heller,	G T. Lawton,
Alpheus Bull,	William Sehelle,	S. L. Lilienthal,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
5v12-3m

International Hotel,

JACKSON STREET,

BETWEEN MONTGOMERY AND KEARNY STS.,

SAN FRANCISCO, CAL.

THIS OLD ESTABLISHED HOUSE IS IN PERFECT order for the accommodation of guests. Persons seeking comfort and economy will find this the best Hotel in the city to stop at. The Beds are new and in good order, and the Rooms well ventilated. The Table will always be supplied with the best in the market.

Prices, varying from $1 50 to $2 per day for Board and Room.

FINE BATH HOUSE AND BARBER SHOP ATTACHED TO THE HOUSE.

☞ Teams belonging to the House will be in attendance at all the boats and cars to convey passengers to the House FREE OF CHARGE, and to any part of the city for 50 cents

21v12 F. E. WEYOANT, Proprietor.

INTERNATIONAL HOTEL,

K Street, between Third and Fourth,

SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m R EISENMENGER.

BRANNAN HOUSE,

(Formerly Vernon,)

J street, between Front and Second streets,

SACRAMENTO.

FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m MRS. J. DUNN, Proprietress.

WHAT CHEER HOUSE,

SACRAMENTO.

Fire-Proof Brick Building, cornor Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m A. J. SENATZ, Proprietor.

CALIFORNIA BUILDING AND LOAN SOCIETY

Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING and Loan Society, announce to the public the removal of their business to their

NEW BANKING HOUSE,

California street, one Door from Sansome.

LOANS.

The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
Second—The Erection of Houses.
Third—The Erection of Manufactories.
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

MONTHLY DEPOSITS.

ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

CURRENT ACCOUNTS.

HALF PER CENT PER MONTH will be allowed on the daily balances to credit of Current Banking Accounts—the same to be ascertained and credited monthly.

REMITTANCES FROM THE COUNTRY PROMPTLY ACKNOWLEDGED.

INTEREST on all sums commences from the day of deposit.

DEPOSITS of any amount received, from FIVE DOLLARS upwards.

OFFICE HOURS—9 1-2 A.M. to 3 1-2 P M. daily.
SATURDAY EVENINGS from 6 1-2 to 9 o'clock.

THOMAS MOONEY, President.
W. G WEIR,
SAMUEL CRIM,
ROBERT LEWELLYN,
JOHN DUNN,
C. A. JANKE,
A. ROSENFIELD,
J. W. McCORMICK,
16v12-3m L. R TOWNSEND, Secretary.

WE ARE NOW OFFERING

OUR IMMENSE STOCK

—OF—

Fine Custom Made Clothing

—AND—

Gents' Furnishing Goods

AT PRICES THAT DEFY COMPETITION.

Our Stock of Clothing Consists of

ALL THE LATEST STYLES

BOTH OF MATERIAL AND FINISH.

A Large Assortment of

Trunks, Valises, Carpet Bags, Blankets, Etc.,

AT EXTREMELY LOW PRICES.

J. R. MEAD & CO.,
8v10 Cor. of Washington and Sansome streets

CAUTION.

LOST—CERTIFICATE No. 23, OF TEN SHARES IN the CAMARGO Gold and Silver Mining Company—Location, Reese River—said Certificate standing in the name of the subscriber. Any person finding the same is hereby cautioned against negotiating said Stock.

W. B. C. HARKER.
San Francisco, May 29th, 1866. 22v12 3

VOLUME TWELFTH.—The Mining and Scientific Press with its last issue, commenced its twelfth volume. Since Dewey & Co. have "held the ribbons" its gait has been rapid toward a perfect journal. Its appearance evidences its prosperity, but doubtless, like some of the rest of us, it can stand increased encouragement. Let such be given, and, our word for it, volume thirteen will acknowledge receipt.—[Golden Era.

A Rare Chance!

A Splendid Business in Alameda County.

FOR SALE AT A GREAT BARGAIN,

400 ACRES OF LAND,

INCLUDING

Landing, Wharf, Three Capacious Warehouses,

Capable of holding 12,000 Tons, which amount of grain was stored and shipped the past year. Connected with said business there is an extensive Lumber Yard; sales during last year, two million feet, which sales, and the entire business, can be largely increased.

The above is a rare opportunity for parties desireus of engaging in an active business that will pay a large dividend on the investment. Satisfactory reasons given for selling, and all information desired can be obtained on application by mail, or otherwise, to

G. F. SMITH,
Notary Public and Searcher of Records, Office "Beatty House," San Leandro. 23v12-m

SPLENDID HOMESTEADS! IN THE COUNTRY.

Twenty-Two Acre Blocks

Adjoining the beautiful Town of

San Leandro, Harlan's Addition

BUT ONE HOUR'S RIDE FROM SAN FRANCISCO.

Property but a few rods from the Railroad Depot. Good schools, good water, splendid view, free from wind and dust, and the best of soil.

☞ Title—U. S. Patent. ☜

A rare chance to buy a beautiful Homesteed for your wife and little ones, at a low figure.

—ALSO—

Improved Homesteads and Farms of 20, 50 or 100 Acres,

In Alameda county. The most desirable locations in the State. Apply to or address

G. E. SMITH,
Notary Public and Searcher of Records.
Office, "Beaty House," (directly opposite the Court House,)
San Leandro. 19v12-3m

VALUABLE MINES!

FOR SALE

IN NEVADA COUNTY.

FOUR VALUABLE QUARTZ MINES, SITUATED AT THE base of Deer Mountain, and about equi distent from Grass Valley and Nevada City, are now offered for sale These ledges run parallel with each other, are wide and well defined, varying from fifteen inches to four feet in width, and have been sufficiently developed to prove them to be of great prospective value. One of them is an extension of the famous Star Spangled Banner. A shaft has been sunk on the extension to a depth of thirty feet, where the ledge is fully two feet wide, and prospects quite as well as the Banner did at that depth. On account of water, further progress downward was impossible without machinery. These claims are accessible at all seasons of the year, and wood and water exist in their immediate vicinity in great abundance. Parties who would prefer putting up machinery and sinking on one or more of these claims, for an interest in them, can do so, and liberal terms will be granted by the present owners.

Persons desiring to purchase claims, or erect machinery to prospect the same, will find this a capital chance. For further information, reference may be had on application to the Editors and Publishers of the Mining and Scientific Press, 505 Clay street, San Francisco. 21v12

WM. H. KEITH & CO.,

Chemists and Apothecaries,

PROPRIETORS AND MANUFACTURERS OF

WM. H. KEITH & CO'S WINE OF PEPSINE, OR RENnet Wine, a new and efficacious remedy for Dyspepsia, Castralgia, etc. WM. H. KEITH & CO'S GLUCOLEIN, a new and valuable compound of Cod Liver Oil, put up in glass jars. WM. H KEITH & CO'S LEMON APERIENT, or Purgative Lemonade, an agreeable, cooling and active purga tive, or mild laxative, as required. WM. H. KEITH & CO'S SAPONACEOUS TOOTH POWDER. DEVINE'S PITCH LOZENGES, for the cure of coughs and colds. Wm H. Keith & Co's Florentine Tooth Wash. Wm. H. Keith & Co's Granula Effervescent Citrate of Magnesia. Wm. H. Keith & Co's Rosemary and Castor Oil Hair Invigorator.

WM. H. KEITH & Co. being in frequent communication with Eastern and European markets, are continually renewing their stock of Pure Drugs, Rare Chemicals, Fancy Goods, and Toilet Articles, Pure Oils, etc. They also give special attention to replenishing ship medicine chests.

Also, just received a large and well-selected invoice of HERNSTEIN'S CELEBRATED INSTRUMENTS, consisting in part of Amputating and Obstetric sets, Pocket Cases, etc.

Physicians and others at a distance ordering goods from us, can depend upon having their orders filled with the same regard to QUALITY and PRICE, as though obtained in person, and we give particular attention to packing and forwarding the same.

WM. H. KEITH & CO.,
Apothecaries' Hall, No. 521 Montgomery street,
15v12ly Between Clay and Commercial, San Francisco.

Eyes! Eyes!! Eyes!!!

DR HENLY, OCULIST AND AURIST, HAS received from Scotland one of the most miraculous REMEDIES for the benefit of the HUMAN EYE ever before discovered. It is unparalleled in its effects upon the diseases incident to this organ. It gives wonderful power to the optic nerve, and removes all the granulations from the lids, and all mucous film from the sclerotic coat without the use of instruments. In fact, it works like a charm on the Eye, without giving any pain. You feel the effect of the medicine in different parts of the head. It drives the disease back into the system, which is better able to stand it than this tender organ.

Why will you suffer when you can be cured in a few days. Persons who have been blind for ten years have been restored to their sight in a short time by the use of this medicine. I will treat any person's eyes in the State, and I do not give them relief in a short time, I WILL NOT CHARGE THEM ANYTHING. Office, No. 751 CLAY STREET, opposite the Plaza, San Francisco. 22-v12

Mining Summary.

CALIFORNIA.

Alpine County—

The Silver Mountain *Bulletin* of June 2d, publishes a letter from B. Pilkington, Esq. to the President of the Buckeye No. 1, which we condense: "Wilmington, Del., April 24th, 1866. I have contracted with the Northwestern California Gold and Silver Mining Company, of Milwaukee, State of Wisconsin, to rent your mine for six years, on the terms and conditions of the power of attorney made by your company to me for such purpose. The terms of lease are 30 per cent. of the nett profits. * * * * They will at once, as soon as they can get subscribed their whole amount of stock, and collect 35 per cent. thereon, send on their superintendant to take charge."

Same paper has also these items: Advices from the East by Wednesday evening's mail, informs us that O. F. Thornton, Esq., who went East for the purpose of interesting capitalists in the Buckeye No. 2, will succeed.... The Wisconsin G. & S. M. company, in this district, has passed by Sheriff's deed into the hands of O. Tanner....O. Tanner and S. Gullickson have a contract for running a tunnel in the claim of the Imperial company 60 feet, at which point it is supposed they will cut the ledge.

The *Chronicle* of same date, says: To-day teams commenced hauling ore from the Mullan claim at Mogul, to the Pioneer Quartz Mill in this city. The mill will commence running next week.

The *Miner* of 9th inst. has these items: Work is going ahead on the Mountain, Pennsylvania, Balaklava, Washington, Silver Mountain, Kohinoor, Maine and Pittsburg claims. ....The result of the working of ore from the Balaklava is not made public....A 22-stamp quartz mill now running in the vicinity of Virginia, is to be removed to the Pennsylvania mine....A couple of gentlemen, superintendents of prominent claims in this vicinity, intend visiting the Swansea Smelting Works in Washoe Valley, next week, with a view to the introduction of similar works here....The drift from the bottom of the American company's shaft, to cut across the new lode, is now 33 feet from the west wall, and no signs of being through yet. The lode is evidently a very large one, and for nearly 20 feet the ore has been improving in amount, though all of a similar character....An assay of Winchester ore, made on the 4th inst. by Leopold Kuh, of Nevada, gives $85.64 of silver, and $8.83 of gold; total $94.47 to the ton of 2,000 pounds. During the present week a side cut has been run, opening the vein perhaps 12 feet from the tunnel southward; the present width is over six feet, and increasing both in width and the good appearance of the ore as they go in....The house over the new shaft of the Mullan company is now completed, and another shift, making four men, will prosecute the work, commencing Monday. The vein of ore is widening as opened and improving in quality.

Amador County—

The *Ledger* of June 9th, says: One hundred and thirty tons of rock, taken from the Vaughn mine, at Pine Grove, was crushed last week, and yielded a little over four thousand dollars. ....The Oneida mill, with its forty stamps, can be plainly heard every still evening thundering away.

Butte County—

The Forbestown correspondent of the Marysville *Express*, under date of June 2d, says: "Messrs. Parks & Platt, owners of several valuable quartz lodes here, are now thoroughly renovating and improving their steam mill, and will commence crushing ore from the Spanish leads Nos. 1 and 2, in the early part of next week....The lodes of Roberts & Co., and Plum, Maddox & Co., about two miles from here, are now being worked and show very flattering prospects. Shafts over one hundred feet deep are being sunk on these ledges."

Calaveras County—

The Copperopolis *Courier* of June 2d, says: The new mill of the Rawhide Ranch company is said to be working beautifully....The late rains have compelled the Kentucky company to suspend work in their new shaft. A few days previous to the rain the lead looked somewhat better than at any time before....But three claims are now being worked in this district. Are capitalists insane? If not, why do they not come and invest?

The *Register* says: Parties owning the quartz claims at Angels are busily engaged in prospecting them. Several of the claims which have in past years been worked with indifferent success, have changed hands, and the new companies are commencing in earnest to develop them. Mr. Bovie who has purchased the Winters' claim, has a shaft down about one hundred feet.

Colusa County—

The *Sun* says: Mr. Whiting has spent $20,000. In going down 607 feet he has gone through six different streams of oil. He intends now to pipe the well down and then cut the pipe at each of these. His best indication is below 600 feet and he is confident that he now has oil in large quantity, although it will yet take time, patience and money to develop it.

Fresno County—

The Millerton correspondent of the Mariposa *Free Press* says: "Some of the finest specimens of native copper I ever saw, have been taken out at the Washington vein, near Taylor's ranch. The copper lies in thin sheets in the seams of a white quartz, and when first taken out is as bright as gold. The vein is about five feet thick."

A writer in the *Gazette*, of June 9th, says: Fresno county will at no distant day throw all the Montanas and Idahoes in the shade. The only drawback to successful working of the mines is money, and nearly all of the companies feel the want of it very much. The mines are beautifully situated, and accessible for any and every kind of machinery. Other mines have been opened which are as rich, if not richer, than the one above spoken of. There is scarcely a doubt but that this is the richest copper district on the Pacific coast.

Nevada County—

The *Gazette* has these items: The Burrington company will be ready to start up their new steam hoisting works to-day or to-morrow....The owners of the Deadwood ledge have their machinery completed, and were intending to start the pump yesterday....The hoisting machinery for the California claim arrived on Tuesday. It will be put up and started in operation without delay....The engine for the hoisting works of the Pennsylvania company was received yesterday, and they expect the boiler up in a few days. The company have their incline down one hundred and ten feet....The new mill of the Empire Mining Company, on Ophir Hill, Grass Valley, was started up on Wednesday. From a number of our citizens who went down to see it start, we learn that the machinery worked finely. It cost about one hundred thousand dollars, and is doubtless the best quartz mill in the State. Connected with the mill are twenty-two pans and six settlers, together with all the modern improvements for saving gold and working the sulphurets.

The *National* says, of the new Empire mill, (in addition to the above): The 30 stamps crush 50 tons in 24 hours, receiving the rock from one of Blake's rock-breakers. The Beath grinder next grinds to fineness the entire mass, and amalgamates in connection. The Beaux & Guiod pans—sixteen in number—are used as amalgamators. Six of Howland's concentrating separators follow; then six Knox pans, Hunter's concentrators—twelve in number—complete the list of reducing, grinding, amalgamating, separating and concentrating machinery. The entire machinery of the mill is driven by a splendid engine of one hundred horse power, one of the finest pieces of work on the Pacific coast.

Same paper has these items: On passing yesterday the North Star company's works, on French Lead, we observed a general tearing away of things, preparatory, as we learn, for a series of extensive and expensive improvements....The town of Eureka, on the Henness turnpike, about twenty five miles from Grass Valley, is now a thriving place. Upwards of sixty quartz ledges have been located, and work on them has begun in downright earnest.

The *Transcript* says: The hydraulic claims at Columbia Hill are paying exceedingly well this season. The pay ground is a strata of gravel extending fifty and sixty feet below the surface. After a run of five days, Willis & Phelps recently cleaned up $2,500. Cregan & Bowel in the same time took out $1,200. Wilcox & Co., Woods & Co., and others, are working with excellent success in their claims. ....One hundred thousand dollars was offered for one-sixth of the Allison Ranch mine, last week, and rejected....A party of Chinese went out prospecting the other day, and struck a very fine quartz ledge on Deer Creek, which is about two feet in thickness. It is thought that if it pays well, when thoroughly opened, some old title will be wrong in on them.

We learn that Messrs. Buckman & Curren, of Little York, struck cement in their claims on Saturday week, which is immensely rich. Previous to the last strike the cement had yielded them, upon an average, $1,500 per week, and the top dirt, which is from sixty to eighty feet deep, has averaged $1,000 in addition. They have an 8-stamp mill.

The Marysville *Express* says: Work has been commenced on the cement claims of Messrs. Knowlton & Co., located at Brandy Flat, near Washington. Six men are now engaged in stripping off the surface ground, to enable them to work the cement to better advantage. After this work is done, the mill will be started.

Excelsior.—The Nevada *Gazette* says: The Excelsior company, at Meadow Lake, have contracted for a 20-stamp mill, which is to be finished and in running order by the first of August next. The mill is to be run by a 65-horse power engine, the stamps to weigh nine hundred and fifty pounds each, with the most approved pans, concentrators, etc., together with desulphurizing works....The Gould and Curry Gold and Silver Mining Company, whose principal place of business is at Meadow Lake, has a capital stock of $90,000, divided into 900 shares, at $100 each, and the incorporation is to exist for fifty years. The Manhattan Gold and Silver Mining Company, also at Meadow Lake, has a capital stock of $270,000, divided into 2,700 shares of $100 each....We are informed by parties recently down from Meadow Lake, that prospecting is being prosecuted vigorously in that locality, and that new ledges are located daily. Old quartz miners, who are not apt to be excited, are favorably impressed with the prospects of the district, and many purpose spending their time this season in prospecting near the summit. Not much can be done, however, before the first of July, as there is still an unusual quantity of snow in the mountains.

The Meadow Lake *Sun* says: The greatest demand of our people at this time, is lumber for building purposes. The three mills situated in the immediate vicinity, with a capacity of turning out about 12,000 feet per day, are constantly employed. We noticed yesterday several parties packing animals with the necessary implements for a prospecting tramp through the surrounding country. Extensive fields on the Excelsior range, both north and south of us, remain unprospected.

The Grass Valley *National* has the following: From private letters received in this place from Excelsior district, we are informed of a very rich strike that has lately been made in the Knickerbocker ledge, belonging to the California company. It is estimated that the rock that is now being taken out will yield upward of $500 per ton. Considerable excitement exists at present on account of this development.

Placer County—

The *Herald* of June 9th, says: The Wells lead, three miles north of Auburn, has proved to be very rich. The company recently hauled some rock to Grass Valley and had it crushed. It paid over $20 to the ton. Some of the sulphurets saved from the crushing assayed $560 to the ton. Parties in San Francisco are now negotiating for the lead....The shaft on the Taylor mine is now down sixty feet, and the vein at that depth is three feet thick. The rock is very close grained, and full of sulphurets. Mr. Taylor intends sinking to the depth of 100 feet before he has any rock crushed....The Pugh quartz mill, located at Ophir, is now receiving a complete overhauling and repairing before commencing operations for the summer....A new quartz ledge was struck in the rear of the *Herald* office. It is said to show free gold.

Plumas County—

The Quincy *Union* of 2d inst., has these items: The Monitor company, at Union Flat, is taking out rich pay dirt....The Buckeye company has easy working rock, and expects to strike gravel this summer....The Crescent company cleaned up last week between five and six thousand dollars.

We clip the following from the *Union* of 9th: Dodge & Co. on Hopkin's creek have commenced operations again....Gardner & Blanks, on the Flat, have recently run a tunnel and struck a good prospect....Nohrman & Thomas have been piping for the last four months, and are expecting a big clean up.... Cox & Co. are also at work with their hydraulic. They have not commenced to clean up any bed rock, as yet. All of the other claims on the creek are paying moderate wages.

Poorman's Creek.—Gentry & Co., and Brown & Riddle have been at work piping in their claims during the last four months. They have a good supply of water, and will not commence "bottoming up" for some time.... Turner & Co.'s claims are prospecting well. ....Bradley and Morn & Co., are at work in their tunnels....Foss & Siebert have been ground sluicing during the spring, and have a large piece of ground "stripped" ready to clean up....O'Neal, Coyle & Co., at Hopkinsville, have been sluicing all the spring, and have just set their sluices for a clean up.

Nelson Point and Vicinity.—The miners in this locality are all preparing for a summer's work....Murken & Co., and White & Richards have got most of their timbers upon the ground, and will commence operations in a few days. ....Several Chinese companies are getting ready to put in flumes and wing-dams in the river....White & Fell are at work upon Hottentot Bar. This bar has been abandoned for the last eight or nine years, but it is now paying from ten to twelve dollars per day to the hand....Jackson, Jolly & Co., at the Willow Ranch, are doing well in their lower claim. It is paying from twelve to fifteen dollars per day. They will commence cleaning up in their upper claims in a short time.

Shasta County—

From the *Courier* of June 9th, we clip the following: On Wednesday last Larkin & Fuller finished their contract for sinking a fifty foot shaft on the lode close to the Uninn mill.... In the South Fork district there is considerable demand for quartz miners to do underground work....Returns from a run of sixteen and a half days, by the Washington mill, give a result, after melting and assay, of $2,243.40. ....The lower tunnel in the William and Kellinger is now in 946 feet, and is 450 feet below the surface of the mountain. The workmen have just passed through a vein, about six inches wide, that gives out mineral which seems to be rich in copper....The Potosi have secured the services of a practical millman, experienced in sulphurets of the kind which they have to contend with. They are offered $208 per ton for their rock delivered in Sacramento....On Tuesday last we visited the Bunker Hill claim. The gold obtained is fine as flour, and is found imbedded in soft slate, in thin strata of decomposed quartz. There are places in the mine where from $500 to $10,000 have been taken out in from one to twenty-four hours. * * We are fully convinced, from a cursory examination, that the company would reap a rich return by milling all the slate rock in the lode....Last week Messrs. Hall & Co. located a gold bearing quartz lode near Hogtown, on Indian Flat. From twelve pounds of the rock, crushed in a hand mortar, two dollars was obtained; and besides this, the company have specimens weighing from one-half to two or three pounds, that would pay two or three dollars to the pound. They will commence taking out rock immediately, with a view to having it crushed in the Spring Creek mill....Daniel's claim is equal in novelty and perhaps in richness. He finds his gold as they do in the Bunker Hill claim—in seams and pockets where small strata of quartz have decomposed and left it. He and his partner have taken out already sufficient, if judiciously invested, to make them comfortable for life, and yet have made but a very small opening in the mine....We are informed that an English company at San Francisco are negotiating for one of the organized locations in South Fork district. It seems that some second class rock from a claim had been sent to the Bay; that the company in question got hold of it, tested it, and proved its value to be $385 to the ton, and announced that if one thousand pounds of such rock could be sent them, they would take the claim at $100,000, and that the proposition has been accepted and the rock sent forward. This may or may not be true so far as the bargain is concerned, but we know the rock has gone down to the amount of a half ton, or over, and of a quality that will prove better than any previously sent.

Every day new locations are being made in the district, and old locations being proven to a slight extent, with most astonishing results.

Sierra County—

The *Advocate* of June 9th, says: We are glad to hear that the claims on Silver Bow gulch are rising rapidly in value on account of striking the real pay channel, and the discovery of auriferous deposits in the bars lining the creek. A company of eight men are now engaged on a ditch which will supply water for the sluicing of about 1,200 acres of dry diggings, lying between Brown's gulch and Silver Bow creek. There is a fine prospect obtainable at the very surface of the ground. A friend of ours, owning an eighth in the ditch, was offered $800 in bankable dust for his share, before he passed a single dollar of assessment. There is any amount of work at $6 per day for all who want employment.

Siskiyou County—

The Yreka *Union* of June 9th, says Mr. Lash discovered a lode of rich gold bearing quartz last week on Humbug, which assays $601.07 gold, and $3.40 silver to the ton.... This county abounds in untold richness in gold and silver bearing quartz, which needs only capital and industry to develop it. On Deadwood, Humbug, Cottonwood, and in Scott Valley, are millions of dollars in the precious rock.

Trinity County—

The *Journal* says: It is gratifying to notice that the attention of people in other sections of the State is being attracted to the as yet but little explored New River mines of this county....All the miners employed there now are making money, water is plenty, and the opinion of old practical miners is that there are mines enough on that stream and its tributaries for a thousand additional men. The diggings can be reached in two and a half days from Trinity Center, or two days from Weaverville.

Tuolumne County—

From the *Courier* of June 2d, we clip the following items: This week we were shown some chunks of gold that were taken from a claim on Bald Mountain, on Saturday last. The sight of them was bewildering. They came from a pocket which in a day yielded to the labor of one man, 214 ounces of gold, and

has not yet been worked out. The same person, last March, took out in one pan of dirt upwards of $2,000....We have seen some good samples of rock from the Good Friday claim, located just this side of Soulsbyville, about half a mile from the Draper claim. The rock is very rich in sulphurets, and shows free gold. By mill it pays from $25 to $40.... The Grizzly mine and mill are again in operation, having been closed for some months, owing to litigation. The mill started on Wednesday, upon very fine quartz....The Buchanan claim, situated about 16 miles east from Sonora, near the north fork of the Tuolumne river, is turning out to be a leading mine. The ledge is 12 feet wide, and the rock yielded at the last crushing $65 per ton. The clean-up on Tuesday amounted to $3,500....The Deer Creek mill, on one of the forks of the Stanislaus river, is in full blast, crushing rock which pays well every time....The machinery for a 5-stamp mill, for the Starr King claim, in Sugar Pine, is being constructed at the foundry.... We were told yesterday that some Mexicans, working about a mile below Jamestown, toward Quartz Mountain, struck a pocket on Thursday and took out $40,000....A ledge belonging to Harry Gould and others between here and Jamestown, promises well. A working test of the rock gives a result of $63 to the ton. It is the same character of quartz that yielded so well at Brown's Flat....Hulck & Co., near Poverty Hill, have a good vein of decomposed quartz....Phelps & Co. have completed their contract for the 15-stamp mill to be put upon the Josephine claim, on Bald Mountain. The building is up, and a great part of the machinery is on the ground. It is expected to be running the 1st of July ...The claims about Columbia and Tuttletown are being actively worked, as also are those on Wood's creek, near this city.

Yuba County—

The Brown's Valley correspondent of the Marysville *Appeal*, says: The old Yuba will be hereafter known as the Rattlesnake Mining company, and the directors will resume work immediately. Their rock has always paid from $16 to $20 per ton. The Dannebroge, the pioneer mill, has commenced operations again, and "mashing" good rock; this mill is supposed to be running on a ledge of its own—that is, not on the Pennsylvania ledge, from which the Jefferson and Pennsylvania companies take their rich rock. The Sweet Vengeance mill has stopped. The Pacific company, which joins the Jefferson on the south, lying between the Dan Webster and Jefferson, is trying titles at law. The Jefferson company is still successful. The Pennsylvania, which joins it on the north is crushing about eight tons of rock per day. Their machinery is entirely inadequate for the labor to be performed. The rock recently struck is as good as the best taken from the Jefferson. Owners in the Dan Webster begin to stir.

NEVADA.

Washoe—

The suit between B. Hastings and the Burning Moscow company has been decided for plaintiff.

The Lyon county *Sentinel* of June 9th says: The Rock Point mill started up last Saturday, running its full complement as steadily as before the break. The dam has been very substantially repaired, and we understand that additions will be made during the summer.... They have replaced their breaking battery with one of Blake's patent rock breaking machines.

Reese River—

The *Reveille* has the following items: Work has been commenced on the Morgan & Muncey mine, under the new arrangement, and a contract has been left to sink an incline shaft to connect with the lower and steeper portion of the main incline, which had been cut at an irregular angle....We learn that powerful hoisting machinery has arrived to-day at the Ontario mine, about four miles northeast of Austin....Within the past few days Boalt & Stetefeldt have made a number of assays of mineral from the Philadelphia and Hot Creek districts, which take a high range—the former from $37 to $700, and the latter from $200 to $600....We learn from Mr. Atchison, who has just arrived from the Clan Alpine district, that the 10-stamp mill of the Silver Lode company will be completed and running on the 25th inst. It had already been tested, and reduced forty tons of ore with entire satisfaction.

The Nye County *News*, of June 2d, says: We hear of recent discoveries made in the south and eastern part of this county, which, if reports are to be relied on, beat anything yet discovered, the Comstock not excepted. Two new districts, the Silver Bend and Hot Creek, have recently been laid off in that direction, the ledges of which are pronounced No. 1....Teams are now hauling ore for the Knickerbocker Mill, which is expected to start sometime next week, provided certain machinery arrives in time, which has been sent for....Our miners still continue to work away as busily as ever, endeavoring to have a good supply of ore on hand against the time of starting the Knickerbocker mill. The number at work on the mines has been greatly increased during the week, and we learn that a large quantity of fine ore is being raised. We have heard of no every rich strikes, though all appear satisfied with the prospect of their claims, and we hope better days are in store for all.

The *Enterprise* says: The party of men who left here some three months ago for the Silver Peak and Red Mountain country, have been at work upon the New York ledge, located about four miles west of Silver Peak, and have struck very rich ore. This lode is reported to be about fifty feet in width, and shows thousands of tons of the very best looking quartz in the croppings.

Esmeralda—

The *Union*, of June 2d, says: The mining news from Hot Springs is encouraging. The Diana, Cornucopia, Kearsarge and Commanche companies are all taking out excellent ore. The Diana mill is kept running constantly, and the ore yields very well. Some of the companies are sinking deep shafts to explore their mines, and are saving the ore taken out in the operation for shipment to Europe.

Humboldt—

The *Register* of June 2d says: Mr. Lark, superintendent of the Rochester company, has been at work one month. Finding the ledge dipping to the west, he broke ground at a distance of 200 feet west from the east wall of the ledge, calculating that in making about 200 feet depth in a vertical shaft he will cut the ledge. He has a fine shaft four and a half by seven feet, and in one month has made almost one hundred feet in depth. He is pressing work as fast as six men can do it....Thousands of tons of ores lie in sight in the Montezuma, Jersey, Daisy, and neighboring ledges. We are glad to learn that parties understanding what is wanted in these Aralin mines are negotiating with capitalists in England for means to open and work several of these valuable ledges.

Placer Diggings.—In Woodman Cañon, fifty five miles up the river, good prospects of wash gold have been found. An Indian led parties to the place, and by pan process they washed out prospects as high as four bits.

Pahranagat—

The *Reveille* says: Lieut. Seamands writes very hopefully of the prospects of that section, and parties there promise to mould the first silver brick from Pahranagat ore on the fourth day of July next. He says two smelting furnaces will be completed by the 15th of June; they are being erected by New York companies, who have a number of men employed under the superintendence of an experienced German metallurgist. * * The recent act of Congress extending the eastern and northern boundaries of Nevada, seems to have been the occasion of unusual felicity to the Pahranagaters. It not only increased the area of the new (Lincoln) county, but its population at the same time, by taking in the Mormon settlements of Meadow Valley and Muddy, in Utah, and Callville and El Dorado Cañon, in Arizona, which will give it a population of about one thousand.

ARIZONA.

The *Miner* of May 23d has the following items:—Van Smith and Christie have bought the Swilling mill at Wickenburg, and will immediately put it on the Sterling lode....Most of the timber has been sent from town for the Big Bug mill, and we learn that part of the machinery is now on the road from La Paz. ....Jack Swilling and his followers, to the number of eighty or one hundred, have congregated at Wickenburg and Pima villages, and will leave upon the proposed expedition to the White Mountains on the first of June..... Correspondent of the same paper at Lynx Creek says: One mill is now running, and two more being built. Of the latter, one is by Mr. Lamson, with the newly-invented Thunderbolt Crusher, with capacity equal to twenty stamps, old style. * * The Eureka, opened at three different points, develops very rich gold quartz from good sized veins. In the Accidental the pay vein is tolerable small, but very rich, and pays well. The Boston, Deadwood, Plymouth, and several others on Eureka Hill, near the creek, are known to possess ledges of much the same character as those already opened. From the placers on this creek a large amount has already been realized, and extensive ditching is now done with the object of pursuing this work more vigorously and on a much larger scale. * * At Big Bug, Messrs. Borger & Co. have the foundation and frame-work for a 10-stamp mill nearly ready. The machinery is on the road from La Paz, and it is believed the mill will be in operation inside of sixty days....Woolsey's water-power mill will soon be running.

Correspondent of same at Williams' Fork writes thus of the copper mines there, under date of April 29th: Martin & Co., (Lightner,) of San Francisco, are working about two hundred men, mostly Mexicans, and taking out about two hundred sacks of copper ore per day. They have shipped some four thousand tons this spring, and will ship by the next boat one hundred tons more. They are taking out and sacking one hundred and twenty sacks per day at the Mineral Hill mine. The company are working some nine mines, including the Challenge mine, near Empire Flat. The ores taken from the mines average about thirty per cent. The Planet, situated on Williams' Fork, about fifteen miles from the Colorado river, and about three miles from Mineral Hill, is also being worked extensively, principally by Americans. This company is shipping considerable ore. * * Mr. Thompson is now placing reduction works upon the Eliza, near the Planet. Labor is from fifty to seventy-five dollars per month.

COLORADO.

The *Journal* of May 22d, has the following items: Work has been commenced on the Texas lode....The Mammoth mill is stopped for repairs to the flue. The Liebig company, at Empire, is going to build a Keith furnace next week....The Cook company's lease of the Excelsior mill having expired, the Alliance has taken the mill in charge....The Crosby & Thompson men feel more encouraged than ever, four or five test assays seeming to prove that they get 80 per cent. of the gold....Prospecting is lively over in Fall River. A new lode was recently struck near the Almy which assays $300 to the ton....The Montrose mill is again running, after detention for repairs and from bad weather....Charley Tyer is sinking on the Golconda Discovery, and showed us beautiful specimens of quartz full of native gold....Mr. Baker, an old resident of Russell gulch, has just returned from the East, where he succeeded in organizing a company on some of the best lodes near the head of the gulch—Iron, Nashville, Fairview, and others. Benson Bros. have come on to commence work. There is little doing in Russell as yet....Mr. Bruce started his mill yesterday, running by water, and on ore from the Simmons. Mr. Armor is working on the Simmons, and has struck a fine vein of ore fifty or sixty feet from the surface....A new mill has recently commenced running at Downieville Bar, on ore from the Hiawatha lode....Last week the B. H. company cleaned up 226 ounces, Sensenderfer, 162, Narragansett, 125. Small lots, 30. Cook company, (Crosby & Thompson) 25 oz.

From the Denver *News* of May 25th, we gather the following: Freight to Deaver, from the Missouri river, 650 miles, is only six and seven cents per pound....Work in the mines in the vicinity of Georgetown is being commenced in earnest. Several parties are about to erect furnaces for the reduction of the ores, large quantities of which are already exposed. The Pioneer Silver company have contracted for the opening of 15 or 20 veins, and the work has already been commenced.

The *Register* says the Hope desulphorizer sends 103 oz. 6 pwts. and 12 grs. (103 6-12), value, advanced $2,000. The Ophir company has from stamps 91½ oz., value, $1,600. The Philadelphia from among its first runs on Gardner ore, returns 34½ oz., value $700. The First National company sends 58 oz....Hereafter all the bullion from works will be sent to the mint in Denver and run into bars. Only one of the reverberatory furnaces is running at present. The failure of the McKenzie blowers to arrive, practically reduces the working capacity of the establishment eighty per cent.

IDAHO.

The *Alta's* correspondent at Boise City writes, under date of May 19th: "Boise county reports are very favorable. It is the opinion of those most competent to judge, that the mines in that county are paying far better than ever they did. The news from Alturas county, although all mills are yet at a stand, is good. The Waddingham mill will start up in a few days, and also the Idaho mill—the former on Confederate Star rock, and the latter on Idaho. Mons. De la Baume had been experimenting at Rocky Bar, with his new process for disintegrating rock, and reported that the cost at that place, was four dollars per ton; that his experiments have been perfectly successful, and that all the expensive machinery, and costly apparatus and magnificent mills, are dispensed with. * * * The Yoba district is twenty miles from Rocky Bar, and as soon as the road is finished to that place, several mills will go in. I will give the names and width of some of the lodes, on which most work has been done; the Atlanta varies from six to thirty feet; Pacific, ten feet; Minerva, ten feet; Olive Branch, fourteen feet; Golden Wreath, six feet; Great Mogul, eight feet; Mountain Pride, five feet; Red Jacket, ten feet; Dubuque, twelve feet; and all of these, so far as tested, have proved rich in gold, and all, except the Great Mogul and Minerva, in silver, also. The Altemonte is another, from which twenty-five to fifty per cent. is the prospect for an ordinary piece of rock.

The Havermire company, under the charge of Dudley Hoyt, have run a tunnel three hundred feet long into the Henrietta ledge, striking the lode about 250 feet from the surface, where they find it well defined, and the rock prospects well; the lode is five feet eight inches wide between the casings.

Placer mining is being carried on in Alturas county, and placer claims, although limited in extent, are, in some places, very rich. Charles Rogers & Co. have not, in the last two summers, taken out of their claims on Feather river (working twenty-four men about five months in the year) less than ten thousand ounces of gold.

Wages at Rocky Bar are now seven dollars a day for good workmen."

A party of fifty Chinamen, from Virginia City, were attacked near the Owyhee river by about 150 Indians, and 49 killed....Twenty teams have loaded the past week, says the Chico *Courant*, and start at once for Idaho. Some go to Boise City, some to Ruby City, and some to South Boise, taking 120,000 pounds of freight.

BRITISH COLUMBIA.

The *Oregonian* says that at last accounts from the Big Bend mines, there were about 1,000 men who had reached there in destitute circumstances, after much suffering, via "Victoria" routes over the mountains. The rush was too early for the mines, as but little prospecting had been done in consequence of the snow. The old claims were yielding handsomely. Some eighty of the disgusted class returned to Colville, and some would proceed in the direction of Blackfoot.

MONTANA.

From the *Post* of May 26th, we gather these items: The reports from the diggings on Indian creek are very encouraging. A party of three young men, who had run a ditch on to their bar claim, cleaned up $60, after about five hours' run. One of the partners states that though the gulch has been little explored, owing to the high water, yet the bars are good wherever they have been prospected, and they extend more than ten miles....We are sorry to say that immense injury to miners has been done by the high waters of last week. Up at Highland, Judge Potter succeeded, by the greatest exertion, day and night, in saving his claims and one other above him, but as a rule the most of the claims are washed level. Still, the miners are at it again, determined not to be balked.

Hydraulic mining is proving very successful in Alder gulch. Ellis, Blake & Co. cleaned up $2,016 after a run of five days. Not less than ten companies of California miners, and one Missoori company are organized, several of which are already actively in operation....The ditches of the Virginia Water Co. supply 700 inches of water.

The Helena *Radiator* of same date, says Mr. Ed Maclay, of the house of J. J. Roe & Co., arrived in this city from Fort Benton on Thursday evening, and reports the arrival of three boats—the Deer Lodge, St. Johns and Cora—at the latter named place....The whole number of boats will not exceed twenty-five or thirty—being much less than has been reported. ....A gentleman from Indian creek states that a nugget was picked up in the upper end of that gulch during the week, which weighed $87.

The Trinity *Journal* of June 9th, says: Information coming from the Montana mines now is not of as flattering a nature as many had expected. In fact a great majority of the reports received are calculated to dampen the ardor of those who contemplated going there the present season, but had not yet got off.... We learn that letters have been received at Shasta from W. H. Rodehamel, who left there two or three months ago. He writes that Californians who had not the means to go to Montana are in luck.

Don't Drive the Boys from Home.—Mothers who are disturbed by the noise and untidiness of boys at home, must be careful lest by their reproaches they drive their children from home in search of pleasure elsewhere. The Portland *Transcript* gives a case in point:

'There are those balusters all finger marks again,' said Mrs. Cary, as she made haste with a soft linen cloth, to polish down the shining oak again. 'George,' she said, with a flushed face, as she gave the cloth a decided wrench out of the basin of suds, 'if you go up those stairs again before bed-time, you shall be punished.'

'I should like to know where I can go,' said George, angrily. 'I can't go in the kitchen, I am so in the way; I can't go in the parlor, for fear I shall mass that up; and now you say that I can't go up to my own room. I know a grand place where I can go,' he added to himself; 'boys are never told they are in the way there, and we can have lots of fun. I'll go down to Niles' Corner. I can smoke a cigar now as well as any boy, if it did make me sick the first time. They shall not laugh at me again about it.'

And so the careful housekeeper virtually drove her son from her door, to hang about the steps and sit under the portico of the village grog-shop. Do you think she gained or lost?

Mining and Scientific Press.

W. B. EWER.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.
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San Francisco:
Saturday Morning, June 16, 1866.

THE NEW YORK METAL MARKET.—From Winterhoof & Co.'s metal circular of May 1st, we learn that tin bas declined to 21 cents for Straits, 22 to 22½ for Banca. English is quoted at 21 cents, gold. The fall has been owing to nnfavorable advices from Europe and heavy shipments from tbe East Indies. The stock oo band is estimated at from 32,000 to 38,000 slabs, against 8,000 on the 1st of May, 1865, and 52,000 on ths 1st of May, 1864. Ths London market shows symptoms nf still fnrther declins. The price is now lower than for sixteen years past.

COPPER.—No business of importance has been doue dnring ths month. Mauufactnrers are not buying aod holders are unwilling to sell below the oominal quotations of 28 cents for Baltimore, 28 to 28½ for Portage Lake, 29½ for Detroit. A further decline is geoerally looked for. The contioned decline in London has contributed to uneettle the market in New York, althougb it is taken for granted that ths Chile supplies for tbe present year will fall ebort. The price of Chile copper in London is oearly as low now (£81) as the lowest quotation in 1865, (£77.)

LEAD is quoted from 6½ to 6⅝ ceots for ordinary brands; 6¾ to 6⅞ for best Englisb. Market quiet. The stock oo hand is 6,000 tons, againet 5,800 oo tbe 1st of May, 1865,

TORPEDOS IN OIL WELLS.—We nlluded, sevsral months since, to tbe use of torpedoes as an agent for rendering exhausted oil wells agaio productive. They appear to he still quite in vogue, and are performing all that can reasooably be sxpected of them. Who knows but wbat they aight have the effect to bring ioto productiveness some of our California wells, which don't as yet seem to yield mucb. If ordioary torpedoes won't accomplish the purposs, perbaps a good doss of uitro-glycerine oil might work. Who knows? We subjoin the following item from tbe Reoo (Western Pennsylvanian) *Times:*

Torpedoes are gettiog to hs qnite in order oo the Reno Farm, and seem to bs performing all that the most sanguine can expect from them. Ws recently gave an account of ons which wae exploded in the Woodeu well, near the Lady Washington, and which at once increased its production from three to about thirty barrels. Another has recently been most successfully exploded in the Tar Homestead well, which had previously been yielding about two barrels daily. After being subjected to tbis treatment, it immediately commenced pumping at ths rate of tbirty barrels per day, which it still continues to produce. Another well, called the Bumstead, about thirty yards distant, wbich had previously dwindled dowo to almost nothing, and wbich the workmen were actually preparing to abandon, immediately after the shock given to its neigbbor, commenced improving, and is now yieldiog at tbe rate of eighty barrels daily.

PUBLIC DOCUMENTS.—Ws are indebted to Hon. John Conncss for a bound volums of the laet Annual Message of tbe President to the two Houses of Coogress, with tbe reports of the Heads of Departments, and eelections from accompanying documents; also the aonual rsport of the Agricultural Bureau, aod tbe statistics of manufactures of the United States, compiled from the eightb census.

AMERICAN SECURITIES IN ENGLAND.—Of the $22,500,000 ioterest on the oational debt which tbe Secretary of the Treasury had to pay on tbs 1st of May last, fully $6,000,000 were sent to Londoo; showing tbat England already holds mors tban one-fourtb of tbe eotirs fuoded debt of the nation.

IRON.

Gold is called the king of nll metals; bnt iron is universally acknowledged to be the most useful and important subject in the metallic realm. Among the ancients, iron was regarded as the symbol of war; its greatest utility was deemed to be the power which it gave to the nations who understood its uses, over the less civilized nations. Iron is still all powerful in war; bnt its chief power and value consists in the peaceful uses to which it may be applied. It is the ladder upon which the arts and trade and all human industries have mounted to the extraordinary hight which they have reached during the last half century. Gold is presented to man in its natural state almost pure; but iron can be obtained only at the cost of much labor, and before it can be rendered serviceable it must be submitted to the most tedious and skillful manipulations. Iron is not only useful in mechanical appliances, but of all other metals it appears to he the only one which forms a never failiug and indispensable constituent of tbe bumao system, and, iodeed, of all animal life, wherever fonnd.

Iroo oever occurs pure in nature, and indeed is oever found pure anywhere except in the laboratory of the chemist. When so found it is prononnced, on the authority of Stahlcmidt, to be a *pure white metal, and so soft that it can easily be cut with a knife!* As far as our present knowledge extends, no metal is more readily influenced than iron, either for good or bad, by the presence of foreign substances, in minute quantities. A few thousandths, only, of one per cent. of carbon, transforms iron into steel. A larger portion of the eame element converts it into cast-iron. A few thousandths of sulphur or a small percentags of silicium, renders it "red-short," as it is technically called, or brittle when red-hot. An almost infinitesimally emall quantity of phosphorus renders it "cold-short," or brittle when cold. We have already described, in previous numbers of the PRESS, the remarkable hardening qualities imparted to iron by an exceedingly small percentage of manganese nnd tungsten.

Thers are doubtless many persons who have often wondered how cast iron is converted into wrought-iron — how from being brittle and chrystalline in etructure, it is converted into an exceedingly tough and fibrous material — such an ore as can be rolled out into sheets so thin that it requires over one thousand of them to make an inch of thickness. We will endeavor to give a simple and brief explanatioo of this process.

A quantity of pig iron is meltcd in a furnace so constructed that a stout iron bar can be thruet througb an opening into the molten iron. This bar is worked about in the mass, very mucb as a boatman would handle n single oar in a row-lock. After being thus worked about for a considerable time, the metal gradually assumes a plastic condition, and finally aggregates into separate lumps. These agglutinated lumps are then worked together by tbe use of the iron bar aforesaid, uotil the operator has gathered a quantity of from 80 to 100 pounds nn ths end of hie rod. This ball or mass is then pulled to the front of the furuace and hoisted out, put oo a truck and carried to a "squeezer," wbicb clasps and flatteoe it out into a "bloom." This bloom is wrougbt-iron, and is now re-heated in another furnace, and bammered out into any desired shape for commercial usc. Tbe first part of this process is called "puddling."

This operation bas been compared to huttermaking, the manipulations of whicb it resembles more than any other well-known process. Take a quantity of cream and stir it about with a stick, very mucb as tbe molten iron is etirred, and you will have butter. The residue—buttermilk—would be represented in the iron puddling process, by the "slag" which is left as a residue, after scveral "blooms" have bcen taken from the mass. This slag consists mainly of silex, which existed as the principal impurity in ths pig iron.

The convsrsion of cast-iron into steel was formerly a very tedions and expensive process, and until receotly was effected ooly by first converting the pig-iron into wrought iron bars, by the puddling process; the hars were tben packed into proper receptacles with layers of pulverized charcoal mixed with salt and ashcs, covered up from the air, and the wbole mass subjected to about a continuons red heat for two or three days. During this process a small percentage of carbon is found to permeate the heated wrought iron, which is thereby so changed in its nature as to become steel.

During the past few years a great improvement in the manufacture of steel, and an immense reduction in the cost, has been brought about by the introduction of the Bessamer process of manufacture. It is not necessary that we should allude to the manner of this process, in this connectiou, any further than to simply say that by it a good article of merchantnble steel is made directly from the pig-iron, by melting the same in a proper receptaclc, and passing a current of atmospheric air tbrough the mass, thereby performing ths double operation of purifying the iron, otherwise done by the puddling process, and at the same time adding the necessary equivalent of carbon to convert it into steel. Some idea of the value and importance of this discovery may be formed from the following facts:

There are now ecventeen extensive Bessamer steel works in Great Britain. There are at present erected and in course of erection no less than sixty converting vessels, each capable of producing fully 6,000 tons of steel weekly, or equal to fifteen times the entire production of cast steel in Great Britain before the introduction of the Bessamer process. The average selling price of this steel is at least $100 per ton below the average price nt which cast-steel was sold at the period mentioned. With the preseut means of production, therefore, a saving of over thirty millions of dollars per annum is effected in great Britain alone, even in the present infant state of the Bessamer steel manufacture.

THE UNION FOUNDRY.—H. J. Booth & Co. ars now building two large boilers for the steamer Active, owned coujointly by the California Steam Navigation Company and Holladay & Co. These boilers are constructed on the principle of the drop and return flue; whcre the flues after passing the length of the boiler, return to the front aud again pass to the rear, and connect with the smoke chimney. In this manner, n large amount of firs surface is obtained, and the heat is utilized to the greatest possible extent. These boilers are 21 feet long, by 8½ in diameter. They contain each ten flues, of fourteen inches diameter, two of twelvs inches and two of eight. They are being made of the best of material nnd in the most substantial manner, with special reference to avoiding, so far as human foresight and careful construction will do it, any repetition of ths terrible disasters which occurred about a year since to twn of our river boats.

In addition to the above, this foundry is also constructing lor tbe Pabranagat mines, a 5-stamp mill, with engioe and boiler complete, one of Blake's Crushers and a set of Wheeler & Randall's Excelsior Tractory Pans.

Booth & Co., are also turoing out large nnmbers of Hooker's Excslsior Pump—the eame which is illustrated and more fully noticed on the first page of our present issue.

In passing through the works, the past week, we also noticed a large amonnt of miscellaneous work on hand, with which every department of this immense establishmeut appeared to be industriously employed.

THE GOLD YIELD OF OREGON.—The sbipments of gold from Portland through Wells, Fargo & Co., for the first five months of the present ycar, havs been $2,515,150. This amount doce not include shipments direct to New York, nor sums tbat have come forward in private hands. Morcover, it should be recollected that the real amount reported by ths above figures is likely to have been materially uncerrated to save insurance, etc.

TO CORRESPONDETS.—"F. A. H." will appear next week; also a communication from G. Kustel, on the Peat Deposit near the junction of the San Joaquin and Sacrameoto rivers. Edward Pique on the "Source of the Electric Current in the Voltaic Battery"—a very interesting discussion—is on file for publicatioo.

COAL DEVELOPMENTS.

EDITOR PRESS:—After due reflection, I have decided to ask your opinion upon the following subject, which I will explain as briefly as possible: I have every inducement to believe that by expending one or two thousand dollars, a large vein of excellent coal could be discovered. I have found several small threads, and my desire is to bore for the main vein. The location is south of San Jose. I thought of advertising in your paper, stating the main facts of the matter, hoping thereby to induce some gentleman who had the means, to take hold of it. Do you think any one would pay any attention to the advertisement? If you have time, please give me your advice.

We have received the above from a gentleman residing in Alameda county. In reply we would say, that one or two thousand dollars will oot go far in the development of a coal mine. If you have "ssveral small threads" of coal, under proper geological conditions, you have much reason for thinking that you will find a regular vein of coal at a depth of two or three hundred feet. If your ground is so situated that you can develop it to the depth of fifty, seventy-five or ooe hundred feet, either by sinking an inclins upon it or running a tunnel to strike the vein at any of the depths mentioned, at a cost of a few hundred or a thousand or two dollars, you will be able to do much better with capitalists nfter that is done, than to ask their assistaoce at the outset. Boring would be cheaper, bot euch a development would be very unreliable, especially in a coal field which has not beeo previously opened, and from which comparative observations could be made. Capitaliste in California, at ths present time, are not often willing to put money into an undeveloped mine of any kind. They prefer to pay a fair price for a development upon which ths owner has already manifested sufficient confidence to put at least a small sum into from his own purse. If he develops anything of value, there is not much difficulty in finding capitalists to buy his development. In mining for cnal, however, there is so much to be considered, in the way of accessibility to market, that it would be impossible to express an intelligent opinion of the value of a mine without knowing its precise locality—or at least the cost of getting the coal to market. It will cost from twelvs to fifteen thousand dollars to purchase hoisting and pumping machinery, and develop a coal mine to the depth of two hundred and fifty or three hundred feet. You cannot consider a mine anything like fully developed at a less depth than that named. If you wish to bring the matter befors capitalists, we know of no better medium through which to do so, than the columns of ths MINING AND SCIENTIFIC PRESS.

San Francisco Prices of Copper Ores.

SAN FRANCISCO, June 16, 1866.

We give the following as an approximate price at which copper ores can now be sold in this city. There is no sale for ores whicb assay less than 12 per cent:

	Per ton.		Per ton.
12 per cent. ore	$24 00	22 per cent. ore	$65 35
13 " "	28 50	23 " "	19 10
14 " "	33 00	24 " "	72 90
15 " "	37 50	25 " "	77 20
16 " "	40 80	26 " "	80 70
17 " "	45 10	27 " "	85 00
18 " "	49 40	28 " "	89 10
19 " "	53 70	29 " "	93 25
20 " "	58 00	30 " "	97 50
21 " "	61 70		

To calculate the value of ore which aseaye 30 per cent. and upwards, multiply the percentage by $3.25, and you have the prics which will be paid. For instance, suppose you havs ore which assays 35 per cent., multiply 35 hy $3.25, and you have $113.75 as ths value of tbe ore. These prices, we believe, will be found substantially correct, and can always be realized.

A NOVEL POWER.—A kangaroo is working in a curious apparatus at Melbourne, in which, by continued jumping, he turns a wheel nfter the fashion of a treadmill, and operates a grindstone, a turnip-cutter, a bean-mill, aud a washing machine. He ie rated at about half a borse-power. It ie thought that be migbt also be made to act as a "hopper" for a grist-mill.

GEN. JACKSON ON MANUFACTURES.

The following language. attered by General Jackson in 1824, is as true now as it was on the day on whicb it was spoken, with the additional foren which the thonsands of fertile acres of grain land spread out in our Californiu bruad valleys, and throughout. our Western prairies, must give it. Let thn capitalists of California rend it, and nct wisely in view of thn truth it cortains :

"Take from our agricultore 600,000 mnn, women and children, to he employed in manufactories, and you will at once givo n homn market for more breadstuffs than all Europn now gives as. Wo havn been too long subject to the policy of British merchants. It is time we should become a little more Americanized."

Wn havn nnlimited water-power in Californiu, as cbeap as nny in the world. We have an abundancn of thn ruw material for wool manufacture, and soon shall be amply supplied with home-grown cottun ; or at least with tbat which is grown on the Pucific Const. Let our capitalists bnild ap manufaetories and they will provide a market for our breadstuffs, furnish opportunity for labor, nnd give a new inpetus to industry, nnd the employment of capital generully on the Pacific Coast. For thn information of those who have thought bnt little of tbese things, and who may be curious to know what capitnl employed in mnnufcturos will do, we copy the following statement from tho proprietors of the San Francisco Woolen Mills, which have been running only seven years. The disbursements by the Missiun company have been as follows :

For Californla wool	$1,273,000
For wages	546,000
For Mount Diablo coal	81,000
To machine shops of San Francisco	78,800
To lumber dealers	33 421
To stone and brick makers	24,300
For soap (California)	38,000
For oil	45,000
For leather (California)	6 000
For taxes	45,000

In tbeir statement introduciug tbese statistics, the proprietors say, tbat during the monfb of Janunry last, the pay-roll amounted to nine thousand seven huudred nnd forty-two dollars.

CONTRIBUTED FOR OUR CABINET.

Under this heading we shall continue to mention and describe, according to merit, such specimens of ores, minerals, fossils, curiosities, etc., as may be presented, or forwarded to us by mail or express, prepaid. Each article will be numbered and placed in our cabinet, and recorded with the name of the donor, and the claim or location from whence it came.

G. Kustel, of this city,—samples of peat from New York Island, at the junction of the San Joaquin and Sacramento rivers. A full description of this deposit, witb appropriate remarks, will appear next week.

Nitro-Glycerine Fifteen Years Ago.—A friend to whom we had loaned several old numbers of the London *Chemist*, and who has been looking them over dariug tbe past week, has called our nttention to the following puragroph in the issue of that journal for August, 1851. The extract is the substance of some remarks made by Dr. De Vry before the "British Association" for the advaneement of science. Their perusal at this jaucture, will doubtless cause mueh surprise that the information then given bas not been more generally made known to the public :

"This yellow l'quid, nitro-glycerine, seems not to be poisonous, bat it explodes at a moderate heat, as was shown by experiment detonating when the drops of nitro glycerine on paper were struck a smart blow witb a hammer. From tbe conversation held before the association, nitro-glycerine appears like gun cotton, *to have states of apparent inactivity*, which are moved by spontaneous causes ; lor preparations that resist a certain nmount of force applied nt ono time, *may readily explode soon afterwards !"*

Had this peculinr property of nitro-glycerine, whieh wns recognized when the oil was found only in the laboratory, been remembered and kept before tbe public after it became introdaeed as a commercial article for blasting purposes, the late terrible disasters might never have occurred. It would either bave been more carefully bandled. or it would not have been allowed to have found its way into public conveyances at all.

Bullion to the amount of $144,111 was shipped from the Gold Hill, Nevada, express office of Wells, Fargo & Co., duriug tbe week ending June 9th.

Empire Foundry.—Messrs. Flynn & Ffance have entered into copartnership for the purpose of carrying on the foundry business, at 221 Mission street, between Beale and Main streets. They havn excellent facilities for thn manufaetnre of nll kinds of castings. Particular nttention will be paid to light, fauey castings and agricultural implements.

Judicious Resolutions.

Several ol our most substantial and judiciously managed mining corporations have passed resolutions, since the approval of the new assessment law, requiring all notice of assessments and sales to be published in the Mining and Scientific Press, the only thorough (daily or weekly) mining journal on this coast. Our efforts to concentrate all mining advertisements in ono paper, for the ecoaomical convenience ol shareholders and assessment payers, arn meeting with decided success. Those who believe in supporting thn mining cause, shoal! bear our paper in mind, nnd bring ap this subject at the next trustee or shareholders' meeting.

San Fraaciseo, April 7th, 1866.

New Mining Laws of California and Nevada.

We havo just issued, in cheap edition, tho new laws relating to mining and corporations iu California and Nevada, passed in 1865–6. Somo of theso laws are of the highest importanco to parties interested in the matter of locating and holding claims, and prospecting miues, in these States. Copies sent by mail. Price, 25 cents.

Address, Dewey & Co., Patent Agents.
San Francisco, May 1st, 1866.

Mining and Scientific Press.—We received a visit a few days since, from Mr. Wood, agent for the Mining and Scientific Press, who is now canvassing this county for subscribers to that valuable journal. The Press is invaluable to miners and mechanics, being the only journal of any importance on the coast entirely devoted to their interests.—[Mountain Messenger.

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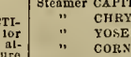
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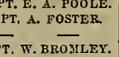
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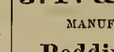
The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO
CORDAGE MANUFACTORY.
CONSTANTLY ON HAND,
A Large and Complete Assortment
—OF—
MANILA CORDAGE
FOR MINING PURPOSES
—ALSO—
WHALE LINE, BALE ROPE, ETC.,
Manufactured from Pure Manila Hemp.
Hoisting Ropes for Deep Shafts,
—ALSO—
Lines for Ferry Boats.
Manufactured to Order.
Office at **TUBBS & CO.'S,**
Nos. 611 and 613 Front street.
Manufactory at the Potro 14v10

M. REYNOLDS,
COPPERSMITH
—AND—
SHEET IRON WORKER,
Market street, near Front, San Francisco.

ALL KINDS OF COOKING UTENSILS tinned and made to order. 16v12-3m

J. F. & H. H. SCHAFER,
MANUFACTUERS OF AND DEALERS IN
Bedding and Furniture,
OF EVERY DESCRIPTION,
Blankets, Comforters, Sheets, Etc.,
504 and 506 Sansome street, near Clay,
San Francisco.
☞ This establishment is now generally known to be th CHEAPEST PLACE in the city for good Bedding. 21v12-3m

Subscribers who do not receive the Mining and Scientific Press in due time, are requested to inform the publishers.

THE FATE OF THE APOSTLES.—Matthew is supposed to have suffered martyrdom, or was slain in the city of Ethiopia.

Mark was dragged through the streets of Alexandria, in Egypt, till he expired.

Luke was hanged to an olive tree in Greece.

John was put in a boiling cauldron at Rome, but escaped death. He died a natural death in Ephesus, in Asia.

James the Great was beheaded in Jerusalem.

James the Less was thrown from a pinnacle and beaten to death.

Philip was beheaded.

Bartholomew was skinned alive.

Andrew was crucified and pounded while dying.

Thomas was run through with a lance.

Jude was shot to death with arrows.

Simon was crucified.

Matthias was stoned.

Barnabas was stoned to death.

Paul was beheaded by the tyrant Nero.

A CITIZEN of Washoe, recently, when called upon by Uncle Sam's Internal Revenue Assessor, to account for his income, swore that everything he had in the world was on his back. The fellow had strapped his money on his back in order to escape taxation.

Machinists and Foundries.

PALMER, KNOX & CO.,

Golden State Iron Works,

Nos. 19, 21, 23 and 25 First Street,

SAN FRANCISCO.

MANUFACTURE ALL KINDS OF

MACHINERY,

STEAM ENGINES AND QUARTZ MILLS

DUNBAR'S IMPROVED

Self-Adjusting Piston Packing,

Requires no springs or screws; is always steam tight; without excessive friction, and never gets slack or leaky.

WHEELER & RANDALL'S

NEW GRINDER AND AMALGAMATOR

HEPBURN & PETERSON'S

AMALGAMATOR AND SEPARATOR,

Tyler's Improved Water Wheel,

Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10qy-tf

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KITTREDGE & LEAVITT,

MANUFACTURERS OF

FIRE-PROOF DOORS AND SHUTTERS

Steel Lined Bank Vaults and Safes, PRISON CELLS, BALCONIES, AWNINGS, Grating and Iron Fences, Stairs, Etc.

ALSO, AGENTS FOR

BUSSEY'S NEWLY PATENT COMBINATION

BURGLAR-PROOF LOCK,

☞ No KEY, or visible signs of OPENING, ☜

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Constantly on hand a large assortment of Second-Hand Fire-Proof Doors and Shutters. 18v12

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HINCKLEY & CO.,

MANUFACTURERS OF

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Quartz, Flour and Saw Mills,

Moore's Grinder and Amalgamator, Mining Pumps, Amalgamators, and all kinds of Machinery.

Nos. 45, 47 and 49 First street, between Market and Mission street, San Francisco. 3-qy

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STEAM ENGINE WORKS,

Beale Street, near Mission Street,

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Steam Engines of every description built to order—Marin Stationary, or Locomotive.

Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc

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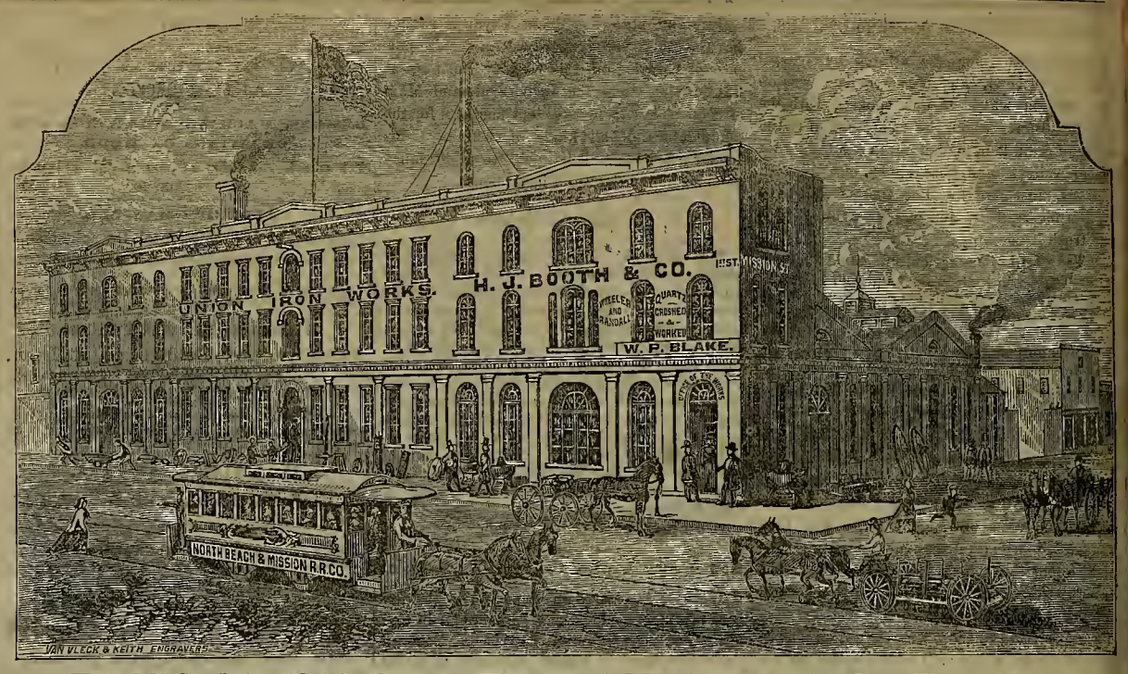
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W. P. BLAKE.
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ENGINES.—Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott & Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

BOILERS. Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

AMALGAMATING MACHINERY.—Wheeler & Randall's Improved Tractory Curve Pan, Zeuas Wheeler's Improved flat bottom pan, Seldin's pan, Veatch's tubs, Prater's concentrators, Wahlee's pans, Beors' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs. BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

OIL BORING TOOLS AND MACHINERY—Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania. We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron. All work done in the best manner at the lowest cash prices.

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Vulcan Iron Works Company

[ESTABLISHED 1850.]

First, Natoma and Fremont Streets.

IRON FOUNDERS,

Steam Engine and Locomotive

BUILDERS,

Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

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Railroad Machinery, Locomotives, Car Trucks, Car Wheels, Housings and Irons; and Flouring Mills, Quartz Mills, Sugar Mills, Saw Mills,

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR

BEATH'S AMALGAMATOR;

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BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;

FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;

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STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

LEWIS COFFEY. J. S. RISDON

LEWIS COFFEY & RISDON,

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THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality. Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

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Manufacturers of

Marine and Stationery Engines,

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses

of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Baux & Guiod's Amalgamator and Separator; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston-Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings at the lowest market rates.

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Practical Machinists and Iron Founders,

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QUARTZ MILL MACHINERY OF ALL KINDS,

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Now so extensively used in the East and in this State. Requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

HANSCOM'S CRUSHER,

The best of the kind now in use in this State or anywhere else

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Which only needs examination to be appreciated.

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Giving greater power, at lower cost, than any Wheel in use Send for one of our circulars, giving full tables All Wheels warranted to give the power as set forth, or the money will be refunded.

Sole makers for this coast of the "Pendergast White Iron Stamp Shoes and Dies.

None genuine unless obtained from us. Every one warranted.

Patented Machinery of all kinds will be furnished by us at market prices. Particular attention given to drawings and specifications of machinery, which will be made to order. The patronage of the public is respectfully solicited. 19v12

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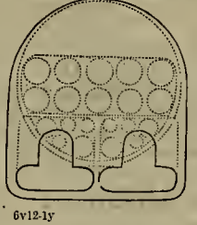

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All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.

All kinds of Sheet Iron and Water Pipe, Coal Oil Stills, Wrought Iron Worms, etc., etc. Manufactured to Order.

Old Boilers Repaired

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All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to. 13v11

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WILLIAMS, HEILBRON & CO.,

MANUFACTURERS OF

STEAM ENGINES, BOILERS,

And all kinds of Mining Machinery.

Also, Hay and Wine Presses made and repaired with neatness, durability and dispatch.

Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

Front Street, between N and O streets,

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—AND—

MACHINE WORKS,

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EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,

Machinery, Mining Pumps, Amalgamators,

Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KING

M. GREENBERG. W. H. MOORE.

GREENBERG & MOORE,

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(Between Mission and Market,)

MANUFACTURERS OF all kinds of **Brass** and **Bell Castings**; Force and Lift Pumps; Cocks and Valves of every description made and repaired; Oil Globes, Steam Whistles, Hydraulic Pipe and Nozzles (for Mining purposes). Also,

COUPLINGS OF ALL SIZES.

☞ Particular attention paid to Hydraulic Pipes and Nozzles; also, to Ship Work of all descriptions. All orders from the interior will be attended to with promptness and dispatch. 25v12 3m

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SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL And Quartz Machinery, Printing Presses,

—AND—

MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

☞ Special attention paid to Repairing. ☜ qy-3

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

Scientific Recreatioos for the Youog.

Every boy in the country that has a koife, l that can get hold of a piecc of willow or s wood, at the season when the bark will eel," is sure to have a whistle. In cities l towns where the proper wood cannot be dily obtained, the toy-shops always have a ply, made of various material, and of differt styles. It is difficult to find a boy that has ver owned a whistle; yet, how few can tell at makes the sound given out by this little strument. We now propose to answer the estion—"What makes the sound of the istle?":

You are probably aware that when you hear e song of the soaring lark, the entire atmosere between yourself and the bird is filled th pulses or undulations, or air waves, as ey are sometimes called. All these waves e set in motion by the little songster's organ voice. This organ is a vibrating instrument, y much resembling, in principle, the reed of clarionet.

Again, when you strike a piano wire, or brate a violin string with your finger or a bow, u will observe that the string vibrates. This bration of the wire or string communicates ilar vibrations or waves to the atmosphere: ese waves pass on to the drum of the ear, and rike or vibrate that just as rapidly as the ring or wire is vibrated. We, in reality, *feel* e motion; but we call it *sound*. Short, light rings make quick, small vibrations, which we ll high sounds; although they are really no gher than the slow and large vibrations of a ng, heavy string, which we call a low sound. e call them high and low for convenience, erely in order to associate them with the es of the musical scale on which they are pressed by means of musical characters.

Now, in wind instruments, like the organ, te, horn, bugle, *whistle*, etc., we have a colmn or tube of confined air, which stands in he place of the piano or violin string. We ibrate this column of air by blowing across ne end of it—not directly down upon or into t, as that would not cause its vibration. In he flute, for example, we make faster or slower ibrations or sound waves, by opening and hutting little holes along the column of air in he instrument, thus shortening or lengthening he same just as we do by passing the finger p and down the violin strings. (In the piano ve have the strings made permanently of all he lengths requir d for producing any sound, igh or low.) When we lengthen or shorten he column of air in the flute, it will vibrate aster or slower. So in order to make different ounds with a whistle, we must lengthen or horten the column of air in the barrel of that nstrument.

The reader will, by this time, understand what makes the sound in the whistle. It is, of of course, the vibration of the column of air in it, precisely as the vibration of the string makes the sound of a violin or piano.

Un-top the lower end of the whistle, and put it into water to the depth of one or two inches. The pressure of hard blowing drives the water down, and the length of the column of air is raised sufficiently to give the different notes of the bird. If held aright, the bubbling out of the air at the bottom interrupts the sound, and makes the trilling that is so characteristic of the songs of birds. With a small, long whistle, a person can, with a little practice, very clearly imitate the singing of a canary bird, bobolink, etc. Little glass whistles, made especially for this purpose, are often met with in the toy shops; but any small whistle, which the boys can make, will answer the same purpose, if the lower end be left open. Different sizes and lengths give different sounds. The lower end of the whistle can be conveniently held in a cup of water, raised as high up as the chin. We presume that all the readers of the Youth's Companion, who have not heretofore learned the philosophy of musical sounds, especially that of the whistle, will hereafter enjoy the music of that instrument much more than they have heretofore done.

A Beautiful Experiment.—Fill a wide-mouthed glass jar with water, and cover it over with a piece of "foundation," (the ladies will understand this), cover that with a layer of peas, pressing it down so that the peas will lay under water. They will then swell and sprout, the roots growing down into the water, their fine fibres presenting a beautiful appearance. Set this into the window, and vines will grow up which can be conducted to the sill. The whole is very handsome.

Dr. Lage, of Lyons, France, has made a discovery of questionable utility—the artificial production of wens. As usual, the unfortunate rats are victims of this new phase in the development of science and human progress. The wens are produced by the introduction of certain metallic sulphates, and the philosopher has succeeded in conferring some remarkable ornaments of this description on his four-footed fellow animals.

THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

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G. KUSTEL,

Metallurgist and Mining Engineer,

Stevenson House, corner Montgomery and California sts.

Ores Analyzed,

Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.

20v11 3m

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Western Branch of ADELBERO & RAYMOND, No. 90 Broadway, New York. 11v11

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249 Pearl street, New York,

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19v12-1y

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W. C. Ralston, D. O. Mills, Bank of California;
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The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

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Agent for Messrs. Vivian & Son and Billwyn & Co., Smelters at Swansea,

Is prepared to buy in any quantity

COPPER, SILVER, GOLD, LEAD

AND OTHER VALUABLE ORES;

Also Lead Bars Containing Gold and Silver,

☞ Full value paid on delivery in this City.—☜

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WILL CONTRACT FOR THE

PURCHASE OF COPPER ORES,

Assaying eight per cent. and upwards of Copper to the

We will make advances upon Ores of Copper.

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SODIUM,

Potassium, Magnesium,

And a fresh supply of

PURE CHEMICALS.

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—AND—

Practical Mining School,

Bryant Street, Between Third and Fourth,

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THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

S. P. Kimball, J. R. Murphy.

10v10

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IMPORTERS,

AND DEALERS IN

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

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WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco March 6, 1865. 11v10-tf

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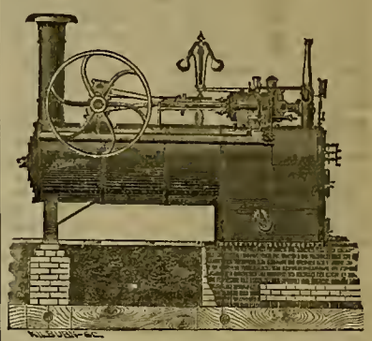
"Hoadley's" and "Hittinger's" Make.

HOADLEY'S.

FOUR SIZES,

8, 10, 12, and 15-Horse Power,



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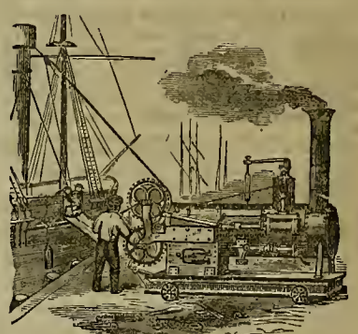
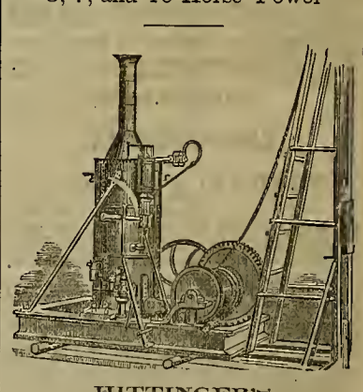
3 to 40-Horse Power.



HITTINGER'S.

THREE SIZES,

5, 7, and 10-Horse Power



HITTINGER'S.

TWO SIZES,

5 and 7-Horse Power,

COMBINING THE MAXIMUM OF EFFICIENCY, DURability, and Economy, with the Minimum of weight and price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by **TREADWELL & CO.,**

18v12 Corner of Front and Market streets.

Occidental Homestead Association,

Office, 305 Montgomery street, San Francisco.

Capital Stock : : : : : : : $33,600

102 Shares, $33 Each.

THIS ASSOCIATION was formed to enable its members to obtain desirable homestead lots in this city, at a cheap and easy rate, paying for the same by regular monthly installments. For this purpose they have purchased blocks 499, 500, and 501 in the Western Addition to this city, bounded by Devisadero, Pine, Broderick and Clay streets. Subscribers will pay an initiation fee of $5 ou each share taken, to form a fund for defraying current expenses, and $11 per month for thirty months, commencing in April, 1856. The property is within three blocks of the Turk Street Railroad, is nearly all on the grade, and is most desirably located for homestead purposes. It is directly east from the lands of the California Homestead Association. The property has been purchased on very reasonable terms, and offers a rare opportunity for investment. A number of fine houses are in process of erection, and streets are being graded near this property, which will greatly increase its value.

When twelve monthly payments have been made, the property will be divided among the members in the usual manner, and each shareholder will receive a contract for a deed to the lot or lots to which he may be entitled, and have the privilege of taking immediate possession of the same. The lots average 27 feet in front by 120 feet in depth. The whole amount due upon any lot may be paid at any time, and discount at the rate of 1½ per cent. per month will be deducted therefrom. Persons wishing to visit the lands of this Association will take the Turk street cars to Devisadero street, and thence go northerly along Devisadero to Pine street.

$20,000 of the capital stock is taken, and the books are open for subscription to the balance, at the office of the Secretary, where the Official Map of the Association can be seen, and all particulars obtained.

The Title to this property is perfect.

J. S. LUTY, Secretary.

Office 305 Montgomery street, corner of Pine, Rooms 2 and 6. 20v12-tf

Pacific Mail Steamship Co's
THROUGH LINE TO NEW YORK,
Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

On the **10th, 18th** and **30th** of each month that has **30** days.

On the **10th, 19th** and **30th** of each month that has **31** days

When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceding; when the 18th falls on Sunday, they will leave on Monday following.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departures of 18th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.

The following steamships will be dispatched on dates as given below:

June 9th—GOLDEN AGE.....Capt. E. S. Farnsworth, Connecting with Costa Rica, Capt. Bradbury.

June 18th—CONSTITUTION.....Capt. F. R. Baby, Connecting with NEW YORK, Capt. Gray.

June 30th—GOLDEN CITY.....Capt. Jas, T. Watkins. Connecting with ARIZONA, Capt. Manry.

Cabin passengers berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.

OLIVER ELDRIDGE, Agent.

Rheumatism ! !
READ IT! READ IT!!

SACRAMENTO, April 16th, 1856.

H. BOWMAN—DEAR SIR: THIS IS THE FIRST WRITing I have done in two years, and it affords me great pleasure to be able to use my pen in the service of those who are suffering, as I have suffered, by stating the following facts:

I have for two years and upwards been afflicted with CHRONIC RHEUMATISM, and until a few weeks ago I have never found anything that afforded me any relief. For three months of the time I was unable to feed myself, and for the last five months my arms have been so bent that I have not been able to dress myself. I was five months at the Warm Springs, at San Luis Obispo, and three months at a Hydropathic Institute in Stockton, and I have been under the care of six different physicians, in the vain hope of relief. About four weeks ago I was induced by a person who had been cured by it to try a bottle of RICHARD'S REMEDY FOR RHEUMATISM, and in less than twelve hours I experienced great relief. In a few days I was enabled to straighten out my arms, and I have been getting better and gaining in strength and flesh ever since. I have now the complete use of all my limbs, and, for the first time in two years, I am out of pain. I do feel for those who suffer as I have suffered, and if they will take my advice, they will lose no time in giving the REMEDY a trial.

Yours truly, GEORGE TAYLOR.

☞ RICHARDS' REMEDY is for sale by

H. BOWMAN,
Druggist, Sacramento.

Price, $2 50 per Bottle. 20v12

Commercial Academy for Ladies & Gentlemen.

NO. 111 K STREET, SACRAMENTO, CALIFORNIA. Established in 1853, where students can acquire a thorough business education. Double Entry Book Keeping, Practical and Ornamental Penmanship and Drawing, Latin, French, the Common and Higher English Branches, taught on reasonable terms. Students from any part of the State can procure board and lodging in private families, near the Academy, at from $4 to $6 per week. For terms, address, MART TAYLOR, Principal; Miss SARAH J. WEIR, Associate Principal. 20v12

The Great Pain Annihilator.

DR. E. R. JOHNSON WILL WARRANT TO CURE ALL cases of Asthma, Fever and Ague, Catarrh, Sore Throat, and Womb Diseases. The Doctor's success is miraculous in cases of RHEUMATISM, NEURALGIA, CONSUMPTION, GOUT, PARALYSIS, INFLAMMATION OF THE EYES and all other diseases that human skill can reach. Rheumatic Pains removed in five minutes. Some of the afflicted that visit him come from one to six hundred miles, and soon find relief. Persons at a distance can be cured at home by addressing a letter to Dr. Johnson, No. 700 Market Street, San Francisco, stating case, symptoms, length of time the disease has continued, and have medicine promptly forwarded to any part of the country, with full and plain directions. ☞ Consultation by letter or otherwise, FREE. 16v12-1m

TRY IT 50 PER CENT SAVED BY USING

STANDARD SOAP COMPANY'S WASHING POWDER,

THIS POWDER IS SUPERIOR TO ALL OTHER PREparations for washing and cleansing. It is made of pure material, and contains nothing that will injure the finest fabric. Equally as good for using in hard as soft water. One pound will make three gallons of beautiful soft soap. Put up in wrappers of 1-lb each, and in wooden boxes of 10 lbs bulk. Ask your grocer for a package, and test its virtue. Manufactured at 207 Commercial street, San Francisco. 15v12q

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,

No. 502 Montgomery street, San Francisco.

EXCLUSIVE AGENT

—FOR THE—

AMERICAN

WATCH FACTORY.

A large assortment of these

Superior Watches,

In Gold and Silver Cases,

Constantly on hand, and sold at Factory prices. Also,

ENOLISH AND SWISS WATCHES,

Imported directly from the Manufacturers.

The American Company are now making

VERY FINE WATCHES FOR LADIES.

☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

New Mining Advertisements.

Capitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of April, 1856, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
D T Adams	not issued	300	$30 00
H Bish	92	100	10 00
H Bish	93	50	5 00
S Peck	39 to 51 inc.	200	20 00
S Peck	not issued	100	10 00
J E Redman	99	200	20 00
J E Redman	not issued	100	10 00
C E Abbott	53	10	1 00
C E Abbott	55	20	2 00
C E Abbott	56	50	5 00
C E Abbott	not issued	40	4 00
W Irelan	1 2	50	5 00
W Irelan	not issued	25	2 50

And in accordance with law, and an order of the Board of Trustees, made on the thirtieth day of April, 1856, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, on the second day of July, 1856, at the hour of 2 o'clock P. M., to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

D. R. BECKFORD, Secretary.

Office, No. 731 Clay street, San Francisco, Cal. je16

Eagle Quartz Mining Company.—Location of Works: Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the fifteenth day of May, 1856, the several amounts set opposite he names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
J H Applegate	31	10	$10 00
J F Arnold	91	5	5 00
J P Bush	10	100	100 00
John Bollen	53, 90 1-ea	2	2 00
R P Cutter	151	15	15 00
M Eldred	149	1	1 00
John Herzo	144	30	30 00
H S Hudson	61	10	10 00
Miss M Pratt	20	5	5 00
Issac Rowell	8	25	25 00
Eli Schell	173	25	25 00
E D Waters	18	20	20 00
E D Waters	19	20	20 00
E D Waters	9	7	7 00
E D Waters	99	53	83 00
E D Waters	162	15	15 00
A M Waters	171	6	6 00
E A Waters	44	7	7 00
E D Waters, Trustee	185	150	150 00

And in accordance with law, and an order of the Board of Trustees, made on the fifteenth day of May, 1355, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of John Middleton & Son, 404 Montgomery street, San Francisco, on the sixth day of July, 1856, at the hour of 12 o'clock M. of said day, to the highest bidder for cash, in U. S. gold coin, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Building, 713 Montgomery street, San Francisco, Cal. je15-2w

Great Basin Mining Company, Humboldt County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the second day of May, 1888, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
H E Highton	273 to 277 100-ea	500	$45 00
H E Highton	203, 204, 205 to 212 279 50-ea	500	45 00
H E Highton	213, 214, 216, 218 to 2.0, 222 to 228		
	228 to 232 25-ea	400	36 00
H E Highton	89	20	1 50
H E Highton	230	15	1 35
H E Highton	1, 81, 83 to 88, 77 to 91, 93 to 96 10-ea	270	24 30
H E Highton	48, 54, 55, 58, 59, 60 240 to 242, 257 to 258 5-ea	55	4 95
H Butenop	4	5	45
H Butenop	152	7	63
B Eckart	5	5	45
W Kruning	6	10	90
Theo Meetz	7	5	45
Benj Simon	8	5	45
M Fremy	9	10	90
Jno Kohlmoos	10	5	45
H Engelbrecht	12	10	90
T Wetzel	13	6	45
A Pichoir	14	5	45
C Schultz	243	100	9 00
C Schultz	244 to 250 10-ea	70	8 30
J F Helmke	16	10	90
W E F Krause	17 to 20 5-ea	20	1 80
W E F Krause	22, 23 10-ea	20	1 80
W E F Krause	24 to 27 25-ea	100	9 00
Tong Wo & Co	28	50	4 50
Ellen Watkins	29	5	45
B Henly	30	2	18
Geo G W Hoge	31	10	90
D Buzzolini	32 to 36 20-ea	100	9 00
D Buzzolini	312	100	9 00
C H Voight	37	25	2 25
G O H Taaffe	38	25	2 25
G O H Taaffe	399	200	18 00
H Critcher	39, 40 25-ea	50	4 50
W B Cooke	41	50	4 50
W B Cooke	42	50	4 50
O L Shafler	97	50	4 50
F Marriott	44	25	2 25
F Marriott	381 to 385 10-ea	50	4 50
W H Cherry	71, 72, 74, 75 20-ea	80	7 20
W H Cherry	73, 76 10 ea	20	1 80
E R Highton	487	4265	383 85
E R Highton	231 to 284 100-ea	400	36 00
E R Highton	118, 117, 285, 288 292 to 298 50-ea	550	49 50
E R Highton	118 to 125, 299 to 308 25-ea	400	36 00
E R Highton	126 to 129, 299 to 1.6 20-ea	180	16 20
E R Highton	323 to 328 10-ea	40	3 60
J McM Shafter	98	25	2 25
C W Howard	99	25	2 25
H M Whitmore	393, 394 500-ea	1000	90 00
H M Whitmore	395, 396 100-ea	200	18 00
Geo Eidenmiller	100 to 104 50-ea	200	18 00
Geo Eidenmiller	104 to 106 20-ea	80	5 40
Geo Eidenmiller	107	5	45
Geo Eidenmiller	259	15	1 35
Jno Palmer	112, 113, 115 25-ea	75	6 75
J S Schuster	108	100	9 00
J S Schuster	109	20	1 80
J S Schuster	110	10	90
J S Schuster	111	5	45
Jno M Bryan	137	10	90
Jno M Bryan	155	15	1 35
Wung Sang	138	5	45
Ah Mon	139	8	64
R W Carter	140	10	90
F P Bird	315	5	45
H Forbes	316	5	45
Jno Spaulding	317	5	45
Wm H Taylor	318	6	45
A P Stanford	333	1600	144 00
G J Boving	337	25	2 25
J P Phillips	338 to 341 25-ea	100	9 00
G Staacke	343	25	2 25
G Staacke	373	10	90
G Staacke	374	5	45
H F Teschemaker	352	800	72 00
James Blake	344	500	45 00
James Blake	345 to 349 100-ea	500	45 00
H F Teschemaker	353	800	72 00
Emily S Tewkshury	365	50	4 50
D Melarky	371	15	1 35
J B Cutter	372	5	45
George Green	375	5	45
Chas Carter	376	5	45
William Williams	377	5	45
H M nk	378	5	45
George French	379	5	45
B M Terrill	380	5	45
C P Fessenden	386	10	90
M H Fowler	387	100	9 00
D Lake	397	100	9 00
D Lake	388 to 392 100-ea	500	45 00
J D Hunt	411	49	4 41
J D Hunt	402 to 410 50-ea	450	40 50
J D Hunt	422 to 441 50-ea	1000	90 00
J D Hunt	451 to 460 100-ea	1000	90 00
J H Ryckman	412 to 421 50-ea	500	45 00
E W Councilman	442		55 00
C Tolman	443 to 447 20-ea	100	9 00
W J Forbes	448	10	90
W J Forbes	449	10	90
John Nash	462	75	6 75
J H Baker	463	50	4 50
George S Fisher	464	50	4 50
Mrs A M Hennell	485	50	4 50
F Billings	4 0	1600	144 00
Thos Bell	471	1600	144 00
P N McKay	472	1600	144 00
H M Hale	473	800	72 00
H M Hale	474	800	72 00
W P Harrison	475	1600	144 00
S Heydenfeldt	121	1600	144 00
H McAllister	156, 157 10-ea	20	1 80
H McAllister	141 to 144 25-ea	100	9 00
H McAllister	233 to 238 5-ea	30	2 70
H McAllister	469	1450	130 50
Wo Chong	145	5	45
Han Two	146	5	45
H Lund	147	1000	90 00
H Lund	148	240	21 60
H Mohr	151	10	90
J & P Medan	153	8	72
Jno H Saunders	182	800	72 00
Jno H Saunders	183	800	72 00
R M Jessup	189 to 199 100-ea	1600	144 00
W Elias	251	10	90
H Pflueger	252	10	90
W Herwig	253	10	90
J Wolfson	254	45	4 05
A Clayburgh	255	5	45
Fanny Roscoberg	260	5	45
C Lehman	261	5	45
J Rosenbohm	262	5	45
J Rosenbohm	263	10	90
Caroline Bart	264	5	45
T Haaf	2 5	25	2 25
J H Van Reed	319, 3 6 100-ea	200	18 00
J H Van Reed	320	50	4 50
J H Van Reed	321	25	2 25
T Stevens	310	5	45
Chas Watson	311	5	45
Jos J Hall	313	10	90
Jos J Hall	314	15	1 35

And in accordance with law, and an order of the Board of Trustees, made on the second day of May, 1888, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Messrs. Olney Co.'s, No. 418 Montgomery street, San Francisco, Cal., the twelfth day of July, 1856, at the hour of 11 o'clock A. of said day, to pay said delinquent assessment thereon together with costs of advertising and expenses of sale.

S. T. KING, Secretary.

Office, 240 Montgomery Street, San Francisco. je16

Lady Bell Copper Mining Company, Lo

Divide Mining District, Del Norte County California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on th fourth day of May, 1686, the several amounts set opposi the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amoun
D Armstrong	198	5	$ 5
D Armstrong	208	5	5
Geo A Ball	128	5	5
A Melhwitz	44	63	3
A Melhwitz	850	150	15 0
William West	206	20	2 0

And in accordance with law, and an order of the Board Trustees, made on the 4.h day of May, 1856, so man shares of each parcel of said stock as may be necessa ry, will be sold at public auctiou, at the salesroom M. Dore & Co., 327 Montgomery street, San Francisco, the fifth day of July, 1888, at the hour of 12 o'clock M. said day, to pay said delinquent assessment thereon, to gether with costs of advertising and expenses of sale.

C. HEYWOOD, Secretary.

Office, 311 Market street, San Francisco, Cal. je18

Latrobe Tunnel and Mining Company.—Location of Works: Virginia City, Storey County, Nevada.

NOTICE.—The Annual Meeting of the Shareholders of the above-named Company, will be held on MONDAY, the second day of July next, 1856, at 3 o'clock P. M., at the office of the Company, S. W. corner Montgomery and California streets, San Francisco, for the election of Trustees to serve the ensuing year, and other business.

R. N. VAN BRUNT, Secretary.

Office, S. W. corner Montgomery and California streets, San Francisco, Cal. je16

Nonpareil Gold Mining Company, Tuolumne County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ninth day of June, 1856, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable on the eleventh day of June, 1856, in United States gold and silver coin, to the Secretary, at the office of the Company, Merchant's Exchange Building, corner Washington and Battery streets, Room No. 8.

Any stock upon which said assessment shall remain unpaid on the ninth day of July, 1856, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the thirty-first day of July, 1856, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees

S. A. ELDRIDGE, Secretary.

Office, Merchant's Exchange Building, corner Washington and Battery streets, San Francisco, Cal. je16

Rippon Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the eighth day of May, 1858, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm DeGraff	9	5	$5 00
Wm DeGraff	10	8	8 00
Daniel Toy	23	30	30 00
Samuel Williams	24	10	10 00
Wm McGill	25	8	8 00
Chas Kather	26	10	10 00
Chas Kather	27	12	12 00
C E Cibbs	28	10	10 00
John Betts	29	10	10 00
Daniel Toy	30	20	20 00
Chas H Stockum	32	5	6 00
A W Eckell	33	10	10 00
J Simon	34	5	5 00
Isaac Marks	35	5	5 00
Thomas Martin	37	40	40 00
George Patterson	53	5	5 00
George Patterson	54	5	5 00
George Patterson	55	5	5 00
J S S Robinson	56	10	10 00
Thomas Gray	57	10	10 00
D E Sammonton	58	5	5 00
Jacob Strubin	59	10	10 00
C Kerby	60	7	7 00
Jacob Jettee	51	12	12 00
Mrs Sarah Winnie	63	10	10 00
M Marks	57	5	5 00
Wm Rippon	not issued	250	250 00

And in accordance with law, and an order of the Board of Trustees, made on the eighth day of May, 1858, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the office of the Company, on the second day of July, 1858, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary.

Office, 338 Montgomery street, San Francisco, Cal. je16

Mining Notices--Continued.

Arbitrios Mining Company, Batopilas District State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of May, 1856, an assessment (No. 10) of one dollar and fifty cents ($1.50) per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the secretary, No. 311 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 12th day of July, 1856, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 18th day of August, 1856, to pay the delinquent assessment thereon, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.

Office, 311 Montgomery street, San Francisco, Cal.

N. B.—Until further notice, all advertisements of this Company will appear in the MINING AND SCIENTIFIC PRESS. je2

Arizona Copper Mining Company, Castle County, Arizona Territory.

Notice is hereby given that at a meeting of the Board of Trustees of said Company, held on the second day of June, 1856, an assessment of forty cents per share was levied upon the capital stock of said company, payable on the fifth day of June, 1856, in United States gold and silver coin, to the Secretary, at his Office, No. 302 Montgomery street, in the city of San Francisco.

Any stock upon which said assessment shall remain unpaid on the seventh day of July, 1856, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the twenty-fourth day of July, 1856, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees

SAMUEL I. C. SWEZEY, Secretary.

Office, No. 302 Montgomery street, San Francisco, California. je9

Joston Copper Mining Company, Ohio Mining District, El Dorado County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 22d day of May, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 36 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 22d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 18th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. C. HUTCHINSON, Secretary.

Office, 626 Montgomery street, San Francisco, Cal. my26

Cosala Silver Mining Company, Cosala District, State of Sinaloa, Mexico.

Notice is hereby given that at a meeting of the Trustees of said Company, held on the 26th day of May, 1866, an assessment of one (1) dollar per share was levied upon the assessable capital stock of said Company, payable immediately in gold coin or the United States, to CHARLES BAUM, Secretary, at the office of this Company, No. 510 Battery street, opposite the Custom House, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 17th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

CHAS. BAUM, Secretary.

Office, No. 510 Battery street, opposite the Custom House, San Francisco. jul

Crocket Consolidated Mining Company.—Location of Works: District and County of Esmeralda, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of May, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable on the 25th, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 19 Exchange Building, corner Washington and Montgomery streets, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 2d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

JOHN M. BURNETT, Secretary.

Office, No. 19 Exchange Buildings, San Francisco, California. my26

Diano Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of June, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 26th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Friday, the 10th day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. je9

Dlos Padro Gold and Silver Mining Company. Location of Works: Alamos, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the twenty-eighth day of April, 1866 the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
D Rightmire	193	4	$12 00
D Rightmire	266	3	9 00
D Rightmire	331	5	15 00
William Bibler	299	20	60 00
William Bibler	223	5	15 00
William Bibler	339	25	75 00
Sarah Maddux	287	133	399 00
Sarah J Maddux	301	40	120 00
J J Gambill	212	25	75 00
J J Gambill	3 4	18	54 00
J J Gambill	305	22	66 00

And in accordance with law and an order of the Board of Trustees, made on the 28th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 416 Montgomery street, San Francisco, Cal., on the 3d day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

E. O. M. COMB, Secretary.

Office, No. 1 Government House, corner Sansomo and Washington streets. je9

Evoca Consolidated Copper Mining Company: Location of Works—Court Hill District, near Black's Ferry, Del Norte County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the fourth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
G. S Ashmead,	173	50	$12 50
G. S. Ashmead,	238	50	$12 50
C. Collier,	21	112	$28 00
C. H. Stewart,	256	17	$ 4 25
C. H. Stewart,	257	5	$ 1 25
W. F. Williamson,	14	112	$28 00
W. F. Williamson,	15	112	$28 00

And in accordance with law and an order of the Board of Trustees, made on the 4th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 418 Montgomery street, San Francisco, Cal., on the second day of July, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHARLES E. ABBOT, Secretary.

Office, 632 Merchant street, Room 3, San Francisco, California. je9

Gold Hill Tunneling Gold and Silver Mining Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May, 1866, an assessment (No. 7) of one dollar per share was levied upon the capital stock of said company, payable immediately in United States gold coin, to the Secretary, R. WEGENER, at 415 Montgomery street, San Francisco, California, or to the Superintendent, Mr. F. CHAPPELLET, Gold Hill, Nevada.

Any stock upon which said assessment shall remain unpaid on the 15th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 10th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal.

Hanscom Copper Mining Company.—Location: Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 29th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, S. S. SWEET, No. 609 Market street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 29th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.

Office, No. 6 9 Market street, San Francisco, Cal. je2

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 10th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Boggs, Geo W	137	6	$6 00
Boggs, A G	67	11	11 00
Cone, Jesse B	136	5	5 00
Cone, Jesse B	18, 133 and 134	10-ea	30
Cook, A J	93	10	10 00
Cornwell, James F	82	10	10 00
Calderwood, Mathew	100	10	10 00
Clark, J Warren	not issued	10	10 00
Davidson, Ole	57	5	5 00
Dutton, David	244	4	4 00
Dutton, David	219, 220, 242 and 243	10-ea	40
Forrester, E A	66	5	40 00
Francis, J H & J G	277	5	5 00
Gilham, John	73 and 74	10 ea	20
Grigsby, T L	99	10	10 00
Grigsby, R F	169	10	10 00
Hackney, H W	37	5	5 00
Haste, Robert	259	10	10 00
Kather, Chas	90	15	15 00
Kercheval, Surah A	240	10	10 00
Linn, Geo	263	10	10 00
Modgett, John	261 and 262	5-ea	10
Miller, G A	91	10	10 00
McGill, Wm	41	5	5 00
Mason, Chas	254	5	5 00
Nelson, A G	55	1	1 00
Nelson, J G	56	5	5 00
Pearson, I N	212 and 213	5-ea	10
Ransdell, S W	245	5	5 00
Roberts, J R	279	6	6 00
Vann, Mathew	161	5	5 50
Vack, J	285	10	10 00
Vack, J	293	5	5 00
Whittou, M S	185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 190	10-ea	120
Whitton, Wm F	214	10	10 00
Whitton, C J	299	5	5 00
York, John	276	5	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 10th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of Messrs. Olney & Co., 416 Montgomery street, on the 26th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.

Office, 336 Montgomery street, San Francisco. je6

Lehod Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, at his office in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal my19

Lady of the Lake Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin, to the Secretary, at his office in San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 20th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal. my19

Mina Rica de las Flores Mining and Mill Company, Camp Flores, near West Point, Calaveras County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 26th day of May, 1866, an assessment (No. 12) of one dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, S. DICKINSON, at the office of the Company, No. 423 Washington street, Room No. 15, up stairs, San Francisco, between the hours of 11 A. M. and 1 P. M.

Any stock upon which said assessment shall remain unpaid on the nineteenth day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the sixteenth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. DICKINSON Secretary.

Office, 423 Washington street, San Francisco, Cal.
San Francisco, May 9, 1866. my12-6w

North American Tin Mining Company. Location of Works: Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 2 st day of May, A. D. 1866, an assessment of forty cents per share was levied upon the capital stock of said Company, payable in gold coin of the United States, immediately, to the Secretary, at his office, at 535 Clay street, in the city of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 22d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

L. N. THORNE, Secretary.

Office, Room No. 7, at 535 Clay street, San Francisco, California. my26

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales to mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

North Star Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

All persons are hereby cautioned not to purchase or negotiate for the following described stock, sold this day, June 6th, 1866, for delinquent assessment No. 12, of twenty-five dollars ($25) per share:

In Name of	Certificate.	Shares.	Shares Sold.
John W Harker	280	6	6
John W Harker	456	6½	6½

As said stock will not be transferred on the books of the Company. By order of the Board of Trustees.

GOTTLIEB BEER, Secretary.

Office, 226 Froet street, San Francisco. je9

Nuestra Senora de Guadelupe Silver Mining Company, Tayolita District, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, (in the Drug store, near Dupont,) or to the Treasurer, A. HEMMELMANN, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 2d day of June, 1866, and unless payment shall be made before, will be sold on the 20th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug store, near Dupont street,) San Francisco, Cal. ap28

POSTPONEMENT.—Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of June, 1866, it was resolved to postpone the publication of the Delinquent Stock till SATURDAY, the 30th day of June, 1866.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug Store near Dupont street,) San Francisco, Cal. je2

Ophir of the Colorado Silver Mining Company, El Dorado Canon, Colorado District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of May, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, T. A. MUDGE, 628 Clay street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 26th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. A. MUDGE, Secretary.

Office, 628 Clay street, San Francisco. my26

Old Colony Quartz Mining Company.—Location of Works: Austin, Reese River, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 17th day of May, 1866, an assessment of three (3) dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Secretary, No. 523 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

H. O HOWARD, Secretary.

Office, 523 Montgomery street, San Francisco. my19

Office Providence Gold and Silver Mining Company.

NOTICE.—The annual meeting of the Stockholders of the above Company, for the purpose of electing Trustees, and transacting other necessary business, will be held at the Office of the Company, No. 10 Government House, San Francisco, on the 20th day of JUNE, 1866, at 2 o'clock P. M. of that day.

F. T. FOLSOM, President.

J. M. BUFFINGTON, Secretary.
San Francisco, May 19th, 1866. my19

Sierra Valley Gold and Silver Mining Company, Plumas County, California.

NOTICE.—There are delinquent upon the following described stock, the several amounts hereafter set opposite the names of the respective shareholders, on account of assessmout of one (1) dollar per share levied on the 26th day of April, 1866, as follows:

Names.	No. Certificate.	No. Shares.	Amount
Ansous, V	151	5	$5 00
Ansous, V	158	10	10 00
Bonemeieoni, A	162	10	10 00
Martinoni, P	5	10	10 00
Martinoni, P	7	10	10 00
Martinoni, P	8	10	10 00
Martinoni, P	9	10	10 00
Martinoni, P	10	10	10 00
Martinoni, P	99	25	25 00
Martinoni, P	100	5	5 00
Millin, J M	102	5	5 00
Requa, J L	159	10	10 00
Requa, J L	160	10	10 00
Requa, J L	161	5	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 26th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Salesroom of Messrs. Olney & Co., at No. 526 Montgomery street, San Francisco, on the 16th day of June, 1866, at the hour of 12 o'clock, M., of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

A. NOEL, Secretary,

Office, 607 Washington street, San Francisco, Cal. je2

Office of Simpson Mining and Milling Company, San Francisco, California, June 1st, 1866.

NOTICE.—The annual meeting of the Simpson Mining and Milling Company, will be held on the second THURSDAY of June, 1866, at their office, southwest corner of Front and Jackson streets, San Francisco, at 12 o'clock, M., for the choice of five Trustees for the ensuing year, and for any other business proper to be transacted at that time.

jc2 T. B. BIGELOW, Secretary.

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. F. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

Sapphire Quartz Mill and Mining Company.

Location: Gold Hill, Storey County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of May, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, Room No. 5, Lucas Turner & Co's Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 26th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 17th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. KOENIG, Secretary.

Office, Lucas Turner & Co's Building, N. E. corner of Jackson and Montgomery streets, San Francisco, Cal. my26

Simpson & Bosselle Mining Company. Mines located in Carson Valley District.

NOTICE.—There are delinquent upon this following described stock, on account of assessmeet levied on the 20th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Andrews, Curtis	376	10	$10 00
Amstatz, C L	236	17	17 00
Amstatz, C L	306	5	5 00
Ayres, J G	367	10	10 00
Allen, O H	369	10	10 00
Bonney, O Jr	371	50	50 00
Bonney, O Jr	372	23	23 00
Bonney, O Jr	373	10	10 00
Bridge, N C,	376 and 377	5-ea	10 00
Blum, Isaac	192	5	5 00
Blum, Isaac	232	10	10 00
Burtell, R	207	18	10 00
Bedell, M B	222	5	5 00
Bedell, B N	223	10	10 00
Ball, T D	301	10	10 00
Chevallier, L E	167	5	5 00
Cheval ier, Margaret	174	3	3 00
Cagwin, H A	189	5	5 00
Crabtree, Eben	261	10	10 00
Curtis, Tyler	307	10	10 00
Cook, H	338	10	10 00
Cronkite, John	375	10	10 00
Dole, Fred Jr	368	10	10 00
English, James	248	5	5 00
Echler, J A	275	10	10 00
Esty, M A	276	10	10 00
Felsenthal, P	128	5	5 00
Fullon, Jno	279	5	5 00
Grinage, F W B	153	5	5 00
Goff, C R	388	30	30 00
Goff, C P	390	5	5 00
Goff, Hannah J	278	5	5 00
Gould, T H	3 6	10	10 00
Hartwell, C H	146, 149, 150	5-ea	15
Holser, John	379	5	5 00
Hogle, C	237	10	10 00
Harter, D	270	15	15 00
Harbine, L	364	10	10 00
Ivens, C H	299	10	10 00
Johnson, W A	193	5	5 00
Johnston, W J	336	10	10 00
Johnson, J R	266	10	10 00
Ledlie, Mary J	339	10	10 00
Ledlie, Mrs J	340	10	10 00
Ledlie, Arthur	342	5	5 00
Lampman, Chas	360	20	20 00
Mitchell, D C	380	5	5 00
Murray, James	158	10	10 00
McKillican, D R	108	100	100 00
McKillican, D R	113	10	10 00
Mauk, F	202	10	10 00
Mauk, F	203	10	10 00
Moore, Charles	360	10	10 00
Nichols, John	19 and 20	50-ea	100
Nichols, John	21	25	25 00
Nichols, John	25, 26, 27	10-ea	30
Nichols, John	370	15	15 00
Newman, Simon	191	5	5 00
Nelson, J	361	10	10 00
Nelson, J	362	5	5 00
Organ, Thos J	206	5	5 00
Osborn ———	361	5	5 00
Payne, G G	182	25	25 00
Payne, G G	74	10	10 00
Parker, J W	262	20	20 00
Parker, J W	263 and 264	25-ea	50
Peltier, Andre	358	5	5 00
Reisch, P M	199	10	10 00
Reischling, P	2.5	17	17 00
Reischling, P	211 and 305	5-ea	10
Robinson, Samuel	212	10	10 00
Robinson, J C	366	25	25 00
Severance, H	301	10	10 00
Seeley, J	233	10	10 00
Spear, Asa	303	5	5 00
Stanley, J P		5	5 00
Stanley, J P	365	10	10 00
Smith, Argus	292	5	5 00
Smith, J T	334	5	5 00
Stiles, E B	363	25	25 00
Simpson, Edwin]	382, 363, 364	5-ea	15
Simpson, Edwin	265	65	65 00
Simpson, Edwin	73	100	100 00
Simpson, Edwin	246	11	11 00
Trumble, P	377	5	5 00
Timson, J	234	5	5 00
Wright, Nellie B	173	5	5 00
Wolfer, C	395	5	5 00
Watkins, Jas T	359	10	10 00
Wooden, Wm	345, 346, 347, 348		
Wooden, Wm	349, 350, 351, 352	5-ea	40
Wooden, Wm	353	10	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 20th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Maurice Dore & Co's salesroom, 327 Montgomery street, San Francisco, Cal., on the 29th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.

Office, 305 Montgomery street, San Francisco. je9

Union Mattole Oil Company. Location of Works: Humboldt County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the fourth (4th) day of June, 1866, an assessment of five dollars ($5) per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Treasurer, W. C. PARKER, No. 608 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the sixteenth (16th) day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the twentieth (20th) day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. WINTER, Secretary.

Office, No. 608 Montgomery Street. jy9

Yankee Blade Mining Company, Reese River Mining District, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 10th day of May 1866, an assessment of twenty-five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 329 Montgomery street, San Francisco, Cal.

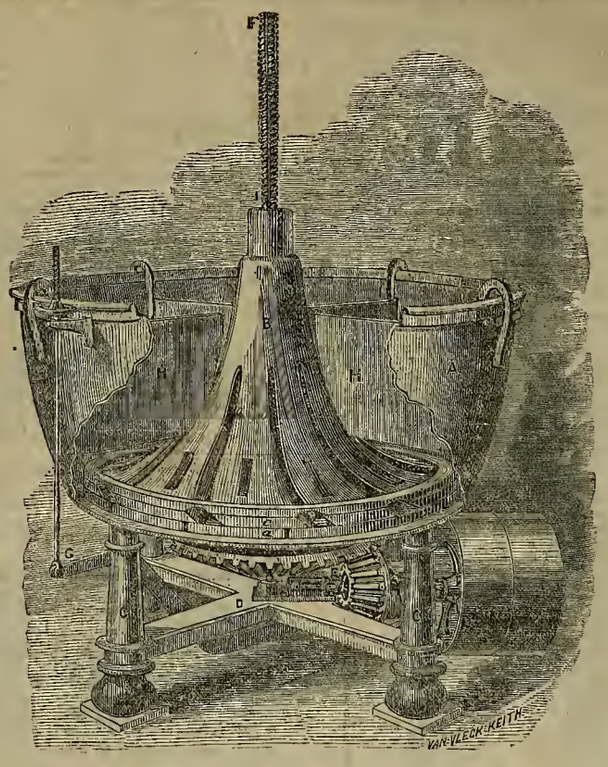
Any stock upon which said assessment shall remain unpaid on the 18th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the ninth (9) day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. T. ATWOOD, Secretary.

Office, No. 329 Montgomery street, San Francisco. my19

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,



The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 118 and 132.

That is, the respective mullers being of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan one hundred and eighteen tons, and the Conical Pan one hundred and thirty-two tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.
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BRUCKNER'S

Mechanical Roasting Furnace

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PREMIUM SILVER MEDAL

—BY THE—

The Mechanics' Institute.

THESE FURNACES ARE NOW MANUFACTURED after an improved mode of construction; which

GREATLY SIMPLIFIES THEIR OPERATION,

and afford a much larger oxydizing surface to the action of heat and atmosphere.

The weight of a Furnace nine feet long by four feet in diameter does not exceed one ton.

THE IMPROVED FURNACE

will soon be more fully described and illustrated in the columns of the MINING AND SCIENTIFIC PRESS.

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19v12 416 Market street, San Francisco.

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For $100!

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Premium Concentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

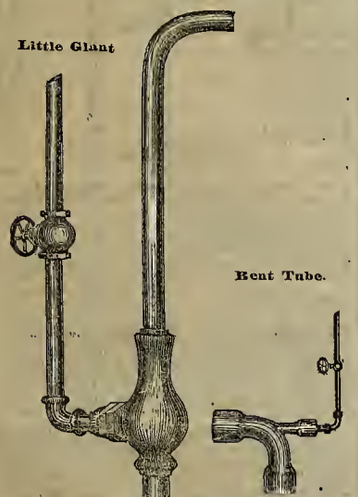
THE ABOVE MACHINE HAS BEEN RECENTLY improved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 130 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 118 Washington street, below Davis, where ALBERT JACOBS will fill their orders promptly.

ANDREW HUNTER,
17v12-tf **Inventor.**

TO PLACER MINERS AND OTHERS.



BREARS'

Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 144 Center street, New York.

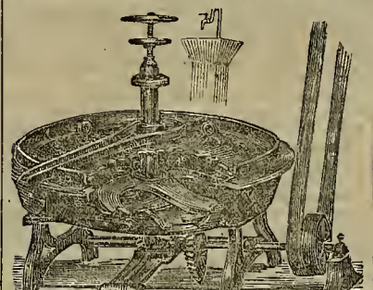
Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee, or at W. T. GARRATT'S Brass and Ball Foundry, corner of Market and First Streets San Francisco, where the Pumps are on exhibition and for sale.

LIST OF PRICES:

LITTLE GIANT.		BENT TUBE.	
Brass	$65	Iron, 4 in dl	$100
		" 3 in. dl	75
		" 2 in. dl	50
		" 1½ in. dl	35
		Brass, 1 in. dl	25

13-v12

BAUX & GUIOD'S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self-acting and very light, and will, in the item of rope alone, pay for itself in a short time

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,
Virginia City, Nevada.
15v11tf Through Wells, Fargo & Co's Express.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

Cotton-Filled Gum Belting,

3, 4, and 5-Ply,

FROM 4 TO 22-INCH,

IN LIBERAL SUPPLY.

FOR SALE BY

GILLIG, MOTT & CO.,

Corner C and Taylor streets,

VIRGINIA, NEVADA,

—AND—

Nos. 148 AND 150 J STREET,

19v12 tf SACRAMENTO, CALIFORNIA.

Pacific Forge Company.

FORGING AND IRON WORK.

THE PACIFIC FORGE COMPANY HAVE JUST ERECTed, in this city, on Fourteenth street, near the machine shop of the San Jose Railroad, a large establishment for the purpose of forging and working in wrought iron. Our hammer is the largest upon this coast, and we are prepared to manufacture, at short notice, all kinds of heavy forgings, car axles, shafts, steamboat cranks, piston-rods, wagon axles, and other similar work. This is the first general shop of the kind erected in this State, and we solicit the patronage of the public. All orders executed at reasonable rates, and with promptness and satisfaction. 19v12-3m

The Hausbrow Pumps
ARE WARRANTED THE BEST.

FIFTEEN KINDS AND SIZES,

Adapted for FARM,

Mill and Mining Purposes.

Fitted for

HAND, WIND, HORSE, WATER AND STEAM POWER.

For sale in every city and town on the Pacific Coast.

LOCKE & MONTAGUE, Agents,

112 and 114 Battery Street, San Francisco.

☞Send for Illustrated Catalogue. 23v12-2m

Hungerford's Concentrator!

—FOR—

SAVING GOLD, QUICKSILVER,

—AND—

SULPHURETS.

MORGAN HUNGERFORD HAS MADE IMPORTANT improvements on the original HUNGERFORD & PRATER CONCENTRATOR, whereby the construction of the machine is simplified, and its operations rendered more complete and easy. It is made more effective by being self-discharging, and delivering the sulphurets more free from sand and dirt.

The Machine can be seen in operation at the Miners' Foundry, 21 First street. Call and examine for yourselves before accepting the opinions of persons more or less interested in other machinery.

Hours from 10 to 12 M. and 1 to 3 P. M.

It should be borne in mind that Mr. HUNGERFORD is the original builder and maker of the celebrated PRATER CONCENTRATOR, and his name should be sufficient guarantee to warrant the public in examining his new machine before purchasing elsewhere.

The new Concentrator will soon be illustrated and described in the MINING AND SCIENTIFIC PRESS.

Address: M. HUNGERFORD,
22v12-tf Miners' Foundry, San Francisco.

BLAKE'S

QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

Rubber Belting,

WITH COTTON FILLING.

A FULL ASSORTMENT OF 3 AND 4-PLY, NOW IN store and for sale by THOMAS H. SELBY & CO.,
22v12 3m Nos. 116 and 118 California street

Steam Pumps,

FOR DRAINING MINES OR ELEVATING WATER TO ANY HIGHT.

PICKERING'S GOVERNORS

For Steam Engines.

Gifford's Injectors,

For Feeding Boilers.

STODDART'S IRON WORKS,

114 Beale Street, San Francisco.
23v12 3m

OIL! OIL!! OIL!!!

—OUR—

MACHINERY OIL

IS SUPERIOR TO ANY IN USE, AND IS WARRANTED NOT TO GUM.

Dell, Cranna & Co.,

511 1-2 and 513 Front street, San Francisco

IMPORTERS OF

COAL OILS AND LAMP STOCK.

21v12-3m9p

FOR SALE

A STEAM ENGINE!

18-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK, EMbracing all Modern Improvements, suitable for Mining, Milling, or other purposes. Will be sold at Manufacturers' rates and charges.

Apply to **A. E. CRANE,**
16v12 3m 310 Washington Street, up stairs.

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

Origin of Illustrious Men.

Columbus was the son of a weaver, and a weaver himself.

Cloud Lorraine was bred a pastry cook.

Cervantes was a common soldier.

Homer was the son of a small farmer.

Moliere was the son of a tapestry maker.

Demosthenes was the son of a cutler.

Terrence was a slave.

Oliver Cromwell was the son of a London brewer.

Howard was an apprentice to a grocer.

Franklin was a journeyman Printer, and son of a tallow chandler and soap boiler.

Daniel Defoe was a hostler, and son of a butcher.

Bishop Prideau worked in the kitchen at Exeter College, Oxford.

Cardinal Wolsey was the son of a butcher.

Ferguson was a shepherd.

Dean Tucker was the son of a small farmer in Cardingshire, and performed his journey to Oxford on foot.

Edmund Hailey was the son of a soap-boiler, at Shareditch.

Joseph Hall, Bishop of Norwich, was the son of a farmer.

Virgil was the son of a porter.

Horace was the son of a shopkeeper.

Shakspeare was the son of a wood-stapler.

Milton was the son of a money-scrivener.

Robert Burns was a plowman in Ayrshire.

Confucius was a carpenter.

Mohammed, called the prophet, was a driver of asses.

Mohamet Ali was a barber.

Madame Bernadotte was a washerwoman of Paris.

Napoleon, was a descendant of an obscure family of Corsica.

General Escartero was a vestry clerk.

Vasco de Gama was a sailor.

John Jacob Astor once sold apples in the streets of New York.

Catharine, Empress of Russia, was a camp grisette.

Cincinnatus was plowing in his vineyard when the Dictatorship of Rome was offered him.

Economy in Advertising.—The Mining and Scientific Press is the best and most economical mining advertising medium in this city. Our terms are less than one half the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The Press contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

FLORENCE

SEWING MACHINES!

COPY OF THE REPORT OF THE COMMITTEE OF AWARDS AT THE FAIR OF THE

AMERICAN INSTITUTE,

New York, 1865,

—TO THE—

Florence Sewing Machine Company,

FOR THE BEST FAMILY SEWING MACHINE.

HIGHEST PREMIUM—GOLD MEDAL!

REASONS:

1st.—Its simplicity and great range of work.

2d.—The Reversible Feed Motion.

3d.—The perfect finish and substantial manner in which the machine is made.

4th.—The rapidity of its working and the quality of the work done.

5th.—The Self-adjusting Tension.

The "Florence" was awarded the First and Highest Premium at the State Fair of California, the only Fair on the Pacific Coast at which any two double-thread Sewing Machines were exhibited in competition in 1865.

The "Florence" received the only premium awarded by the Mechanics' Institute of San Francisco, in 1864 and 1865, to any Sewing Machine, Sewing Machine Company, or Agent. The claim of a competitor to a medal is without any foundation whatever.

Wherever the "Florence" has been brought in competition with other Sewing Machines, it has always been declared the best. It is the most simple, the most substantial, the most efficient, and its use is easily learned. Every Machine sold is guaranteed in the full sense of the word.

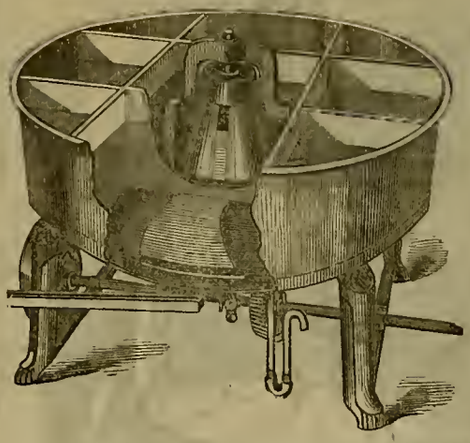
Send for Circulars and Samples of Work.

SAMUEL HILL, General Agent,

20v12-14w 111 Montgomery street, San Francisco.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of eight years' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. Much less Cost.

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

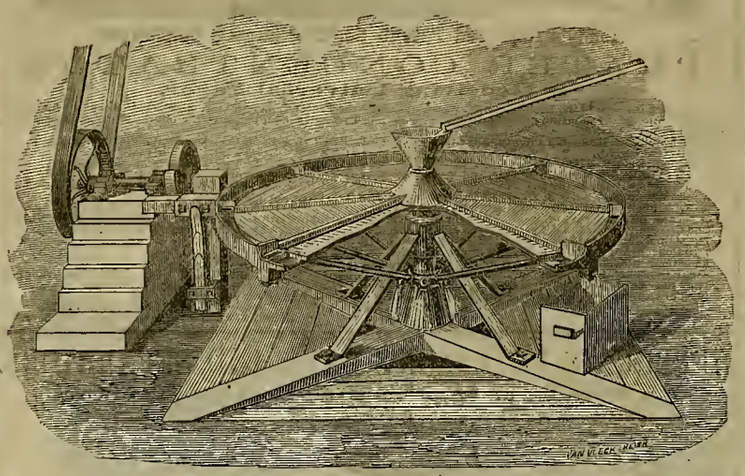
4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of ISRAEL W. KNOX, or W. A. PALMER, Inventors,

14v13-p12q At the Golden State Iron Works, No. 19 First street, San Francisco.

VARNEY'S CONCENTRATOR,



With a disk 4 1-2 feet in diameter—total weight of Machine 350 pounds.

Is driven by one-eighth of a horse-power, and will concentrate eight tons of ore per day, and make the sulphuret clean. Larger ones do work in proportion to size.

☞ IT CAN BE SEEN IN OPERATION AT THE PACIFIC IRON WORKS, SAN FRANCISCO. ☜

22v12-3m

HEUSTON, HASTINGS & CO.,

—THE—

FASHIONABLE CLOTHIERS

OF SAN FRANCISCO,

ARE SELLING

THEIR NEW STYLE

—OF—

CLOTHING, FURNISHING GOODS, TRUNKS, BAGS, AND VALISES,

14v12-3m ☞ At Reduced Prices. ☜

REMINGTONS'

ARMY AND NAVY REVOLVER,

THE REMINGTON REVOLVER

Has been approved by the United States Board of Ordnance, and has so satisfactorily met the requirements of the Government, not only in the field, but in the official tests and examinations made by prominent officers of the Ordnance Department, that it stands at once the most popular, serviceable and approved arm of the kind in use. Upwards of 125,000 have been supplied to the Government within the past four years, for the land and naval service, furnishing ample evidence of the estimation in which the arms are held.

Simple and symmetrical in its entire construction, securely strong, of most modern improvement in mechanism and material; its unequaled range and penetration, together with its durability, are points in its favor now well known, and which challenge a comparison with any other pistol of the kind made in this country or in Europe.

The superior strength and capacity of the arm for constant and long use is apparent from the fact that the entire frame is constructed of a single piece of metal, thus preventing the extension of some portions of the frame, from the effect of firing—a serious defect in many pistols—in which the frame is composed of two or more parts.

The frame of the Remington Revolver furnishing a top strap or support above the cylinder, served to protect the base pin (on which the cylinder revolves) from any undue strain to which it would otherwise be subjected, and which would immediately render the line of fire from the cylinder to the barrel imperfect, thus destroying force and accuracy.

Another advantageous feature of the arm is the means afforded for the instantaneous removal of the cylinder from the frame. This not only facilitates the cleaning of the pistol, but by the quick adjustment of the cylinder, one pistol can be made as effectual as two—and, considering the difference of weight, it is far preferable—by simply possessing a spare cylinder loaded and capped to instantly replace the exhausted one.

The above is a general summary of the points of peculiar merit in the Remington Revolver which a trial of the arm is only needed to attest. For sale at Manufacturers' rates, by

ALBERT E. CRANE, Manufacturers' Agent,

16v12 310 Washington Street, up stairs.

IRON!

Glasgow Iron and Metal

IMPORTING COMPANY,

Nos. 25 and 27 Fremont street, San Francisco,

Keep constantly on hand a large assortment of

Bar Iron,

Boiler Tubes,

Anvils,

Cast Steel, Etc.,

Which they offer to the trade on liberal terms. 18v12-3m

NEW MINING PUMP.

Excelsior Double-Acting Suction and Force Pump.

W. D. Hooker's Patent, August 15, 1865.

THE SUBSCRIBERS OFFER FOR SALE the following sizes of the above-named celebrated Pump, acknowledged to be the best Double Acting Pump known to be in use. They are more easily set in position, and are more durable and compact than any other Double Acting Force Pump; they are also worked with very little friction, and have greater forcing power than other pumps of like size. They are adapted to work by hand, wind-mill horse, or steam-power.

No. 1—Cylinder 2½ in., stroke 6 in.
No. 2—Cylinder 3 in., stroke 7 in.
No. 3—Cylinder 4 in., stroke 10 in.
No. 4—Cylinder 5 in., stroke 15 in.
No. 5—Cylinder 6 in., stroke 18 in.

The Nos. 4 and 5 are Mining Pumps.

We have also for sale a full assortment of Pump Fixtures, such as Iron Pipe, Hose, Brass Goods, etc.

J. W. BRITTAN & CO.,

12v12-3m 120 Front street,

VARNEY'S

PATENT AMALGAMATOR.

These Machines Stand Unrivaled.

For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Settlers made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

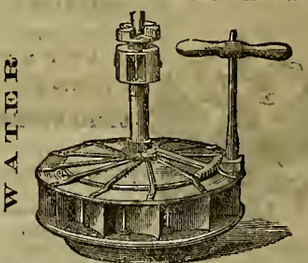
Mill men are invited to examine these pans and settlers for themselves, at the PACIFIC FOUNDRY,

1v1 San Francisco.

LEFFEL'S

American Double Turbine

WATER WHEEL.



THIS WHEEL, WHICH HAS HAD THE most unprecedented sale of any water-wheel ever made, and which has given unusual satisfaction whenever used, is now for sale by KNAPP & GRANT, 310 Washington street, San Francisco, where persons desiring to use water-power can be supplied. These Wheels are adapted to use from 10 to 5,000 inches of water, and from 4 feet to 500 feet fall. Let us know how much water you have either in miner's inches or cubic feet per min., what fall you have, and what power you require. Write or send for circular to

KNAPP & GRANT,

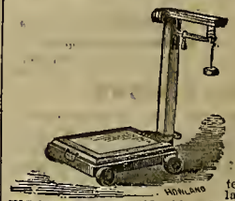
—ALSO— San Francisco.

Leffel's Lever Jacks,

For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by KNAPP & GRANT,

12v12-3m San Francisco.

FAIRBANK'S



HAY,

COAL,

CATTLE,

MINERS', AND

GROCERS'

Scales.

We would call the attention of Miners to our large scales for WEIGHING LOADED WAGONS, of from 10,000 to 20,000 lbs capacity.

Manufacturers' Branch House.

19v12-3m FAIRBANKS & HUTCHINSON, 334 Montgomery street.

To Ditchmen, Millmen and Others Requiring

IRON PIPE.

M. R. ROSE, CORNER OF 9TH AND K STREETS, Sacramento City, has facilities unsurpassed on this coast for the manufacture of IRON PIPE of every description. He also has on hand a deep well FORCE PUMP, of his own invention and manufacture, well adapted for oil wells. His tools being portable, pipe can be manufactured on the ground. 19v12

Twelfth Volume.—The Mining and Scientific Press, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News

A Horned Rattlesnake is one of the natural curiosities picked up by Gov. Blaisdel's exploring party, during their late visit to the Pahranagat mining region. The "snaik," which was brought in alive, is about a foot long, has two rattles, similar to those of ordinary rattlesnakes, but differing from such by having his head adorned with a pair of horns, about half an inch long, formed of a fleshy substance, similar to the horns of the horned toad. It is evidently a new species.

California Brass Foundry,

No. 125 First street, opposite Minna,
SAN FRANCISCO.

ALL KINDS OF BRASS, Composition, Zinc, and Babbitt Metal Castings, furnished at the shortest notice. Brass Ship Work of all kinds, Spikes, Sheathing Nails, Rudder Braces, Hinges, etc., constantly on hand and made to order. Also, manufacture Ship and Steamboat Bells and Gongs of superior tone.

All kinds of Steam, Liquor, Water, Oil, and Flange Cocks and Valves made and repaired.

Hydraulic Pipes and Nozzles, and Hose Couplings and Connections of all sizes and patterns furnished with dispatch. **Prices moderate.**

JOHN P. GALLAGHER,
22vl2-3ml6p JOSEPH H. WEED.

STANFORD BROTHERS,

REFINERS AND PACKERS

—OF—

COMET OIL!

—FROM—

CALIFORNIA PETROLEUM.

WE WARRANT THIS OIL TO BE SUPERIOR TO ANY Eastern Oil, and any purchaser finding it to be not as represented, can return the same at our expense, and the purchase money will be refunded, together with all charges.

STANFORD BROS.,
21vl2-3m **123** California street.

PREMIUMS.

1st Premium, at Sacramento Fair.....1862
1st Premium, at S. F. Bay District....1862
1st Premium at Sacramento.....1863
1st Premium, at San Francisco.....1864
1st Premium, for Cordials.....1864
1st Premium, for Hygienic Bitters....1864
Awarded to
V. SQUARZA.

SMOKE THE
PATENT
RUSSIAN
CIGARETTES.
manufactured by
GIBB & STAHL
120 Kearny Street,
San Francisco
16vl2-3m ☞ For sale in all the Cigar Stores ☜

Stationery & Drawing Paper
WAREHOUSE.

GEORGE B. HITCHCOCK & CO.
Blank Book Manufacturers,
Counting House, Insurance & Bank Stationers,
HAVE THE LARGEST AND BEST SELECTED STOCK
—OF—
FINE STATIONERY,
Writing and Drawing Paper
On the Pacific Coast.

☞ TRADE SUPPLIED ON LIBERAL TERMS. ☜
413 and 415 Sansome street,
15vl2 San Francisco.

GEORGE E. BROWN,

(Late Assistant Examiner in the U. S. Patent Office,)

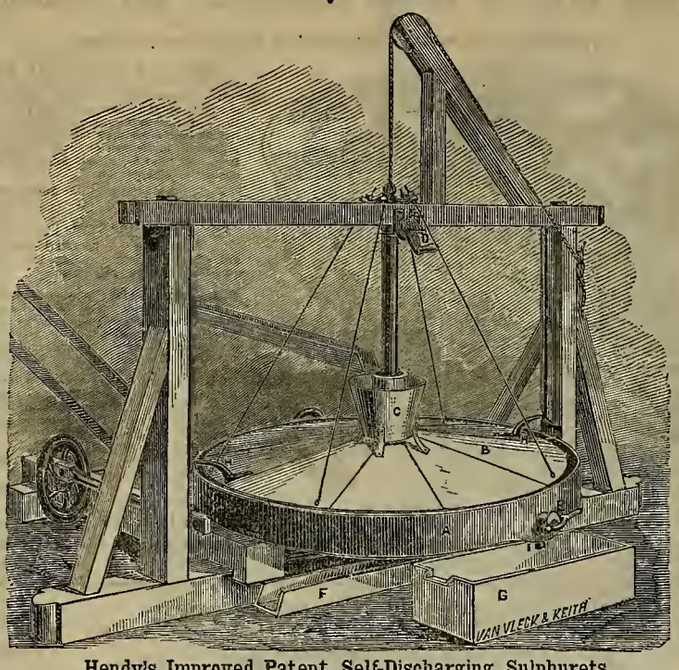
HAVING RESIGNED THAT POSITION AFTER A TENure of office of eighteen months, offers his services to
INVENTORS AND THEIR ASSIGNEES,
—AS A—
Patent Solicitor,

He will make Preliminary Examinations in the Patent Office, with a view to ascertain the Patentability of any invention that may be submitted to him for that purpose; will prepare the necessary papers for those who wish to make Applications for
Patents for their Inventions,
—OR FOR—
EXTENSIONS OR REISSUES OF PATENTS

Already granted; will act as an Attorney in presenting Applications at the Patent Office, and in managing them to a final issue; will draw up Assignments; will examine into the condition of Rejected Applications when desired to do so, and undertake the prosecution of such as may be considered patentable, and do whatever else is usually done by Patent solicitors.

Address, P. O. Box 257, Washington, D.C. 7vl2-3m

NOTICE TO QUARTZ MINERS.



Hendy's Improved Patent Self-Discharging Sulphurets
PRATER CONCENTRATOR
Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " "
U. S. REESE RIVER MILL, Austin, "
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
OPHIR O. & S. M. CO., Newcastle, Placer County.
CONEY MILL, Jackson, Amador County.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.
CARROL & ASPINWALL MILL, Reese River, Nevada.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:
One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
Eight Concentrators for the Benton Mill, Bear Valley, Mariposa Co; ordered by Messrs Dodge & Bro, San Francisco.
They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.
☞ For explanation of the above engraving, and other particulars, send for a Circular.

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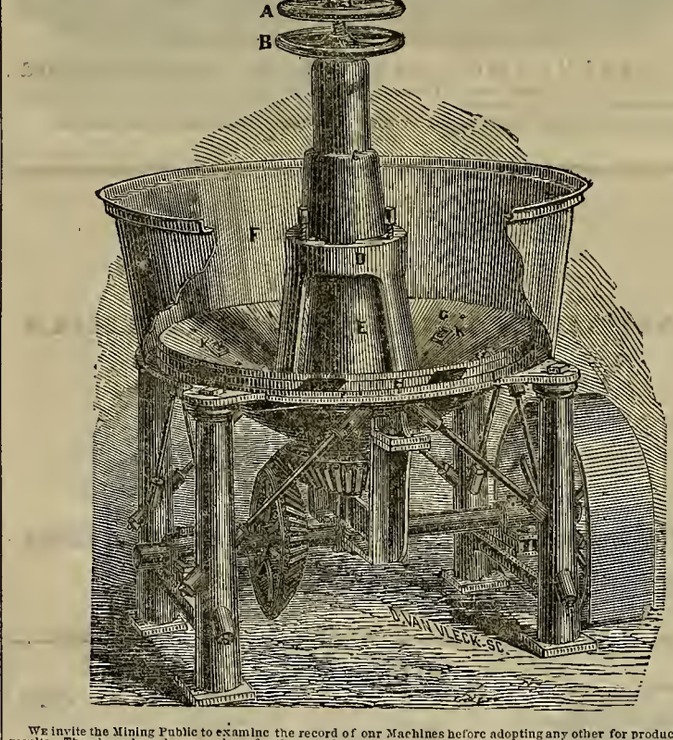

We invite the Mining Public to examine the record of our Machines before adopting any other for producing similar results. They have been in general use for the past three years, during which time they have been repeatedly tried in comparison with every other machine of note, and of a similar nature, and have invariably been adopted in preference; which facts we offer as the most suitable recommendation, and which is attested by the following list of

Principal Mills Using them:

Names of Companies.	*Location of Mill.*	*Names of Companies.*	*Location of Mill.*
GOULD & CURRY	Virginia City, Nevada.	TEAKLE, ROGERS & CO	Nevada.
SILVER STATE REDUCT'N WKS.	Empire City, "	MELVILLE KELSEY	Silver City, "
OPHIR	Washoe City, "	HUDGIN & NORMAN	Silver City, "
EDWARD McLEAN	Silver City, "	YELLOW JACKET	Empire City, "
SANTIAGO	Zephyr Flat, "	BELDIN & GREGORY	Esmeralda, "
RAPHAEL & HUSTED	Gold Hill, "	HECKENDORN	Calaveras Co., Cal.
FRENCH & BESLER	Dayton, "	CARSON GREEN	Calaveras Co., "
HERMAN, KETSCHER & CO.	Carson River, "	CROWN LEAD	Mariposa Co., "
A. SUTRO	Dayton, "	BIG BLUE LEAD	Tulare Co., "
DAVIS & BARRON	Carson City, "	E. T STEEN	Amador Co., "
PHŒNIX	Silver City, "	EAGLE	Amador Co., "
CHAS S. COUVER	Silver City, "	IDA MILL	Owens River, "
PIONEER	Silver City, "	ALACRAN	Sonora, Mexico.
L. A. BOOTHE & CO	Virginia City, "	SANTA CLARA	Sonora, "
A. DELAND	Washoe, "	ROSARIO & CARMAN	Sonora, "
SUGGOR MILL & MINING CO	Gold Hill, "	LIBERTAD	Sonora, "
RODGERS & GRISSAM	Silver City "	DON JUAN ROBINSON	Sonora, "
ANDERSON & SEAL	Washoe, "		

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Mining and Scientific Press.

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DEWEY & CO., PUBLISHERS And Patent Solicitors.

SAN FRANCISCO, SATURDAY, JUNE 23, 1866.

VOLUME XII. Number 25.

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[Reported for the Mining and Scientific Press.]

California Academy of Natural Sciences.

REGULAR MEETING.

Monday Evening, June 18, 1866.

Vice President Stearns in the Chair.

Fourteen members present.

Minutes of previous meeting read and approved.

The following gentlemen were elected resident members: Ferdinand Von Richthoven, Ph. D., E. B. Dorsey, W. W. Palmer, W. S. Keyes, M. L. Stangrom, J. T. Watkins, Louis Falkeman, and A. J. W. Harford.

Messrs. Vitue Wackenreuder, Thos. Price, E. Wertheman, and Sherman Day, were proposed for resident membership.

A letter was read from Dr. Ferdinand Stoliczka, of Calcutta, Paleontologist of the Survey of India, acknowledging the receipt of his notice of election.

On motion, an appropriation was ordered for the purchase of alcohol.

Mr. H. G. Bloomer stated that he had identified the pepper tree of our gardens as the *Schimus mollis* of authors.

Mr. W. H. Dall called attention to several singular errors in the chapter on Geographical Distribution in Agassiz's new work, "Seaside Studies in Natural History," such as referring to San Francisco bay as a "*fresh water estuary*," calling San Diego an island; and denying the existence of harbors on the coast south of San Francisco to Cape St. Lucas.

Mr. Stearns remarked that he had collected fifty-seven species of mollusks at Ballenas Bay, in an hour and a half.

Dr. Gibbons stated that he had so far failed to obtain any satisfactory proof of connection between the phases of the moon and the state of the weather; a statement which Mr. Asburner remarked coincided with the deductions of Arago and other astronomers.

Mr. Dall announced that the building containing the collections of the Chicago Academy of Sciences was burned June 9th, and serious loss sustained. He offered the following resolutions, which were adopted:

Resolved, That the California Academy of Natural Sciences deeply sympathize with the Chicago Academy of Sciences in their late misfortune, and sincerely hope that it may be followed only by a still greater display of earnest progression, and a broader career of usefulness.

Resolved, That a copy of these resolutions be forwarded by the Secretary to the Chicago Academy of Sciences.

On motion, adjourned.

T. H. Bloomer, Recording Secretary.

N. B.—For "219 *specimens*," in the last report for the Press, read "219 *species*."

Migration of Machinery.—Most of the silk machinery that was thrown out of use in Covington, England, by the operation of the high tariff established in this country during the war, has been brought over to the United States and is already in operation.

HUNGERFORD'S IMPROVED CONCENTRATOR.

We give annexed a very correct pictorial illustration of "Hungerford's Improved Concentrator." The improvement consists mainly in an addition of a circular trough, outside of the periphery of the ordinary Prater Concentrator, into which the sulphurets are discharged from the main body of the machine, and from which they are again discharged into any convenient vessel, through openings shown upon the right hand of figure 1, and which can be kept either closed or open. Both discharges are produced by the action of the machine itself.

The working of the Prater concentrator is too well known to our readers, and has been too often described in the columns of this paper to need any further notice here. The present improvement by Mr. Hungerford, is quite distinctly shown in the perspective view of the machine, as seen in figure 1. The principle of the action of the machine, and of the new improvement, may be observed in the sectional view, as given in figure 2. Another important feature is the means by which the oscillatory motion is imparted to the pan. This is accomplished by two eccentrics, placed on a horizontal shaft passing across and below the center of the pan, and working between the two pairs of adjustable wooden guide blocks or bearings. These two eccentrics are so turned that their sides converge at all points to one common center, by which they are made to bear even upon these wooden blocks or bearings. The result of this arrangement is to obtain an eccentric motion, doing away with all rods, cranks, etc.

The lighter portion of the sand or waste is represented by the coarse dots at 2, 2. This sand works its way out of the machine through the central opening in the same. The sulphurets are forced by the oscillatory motion of the machine to accumulate about its circumference, at 1, 1. A small opening will be seen through the inner wall of the pan, through which the sulphurets readily pass from the main body of the machine to the circular trough, 3, 3, already described, as constituting Mr. Hungerford's principal improvement. These openings are placed at intervals of a few inches, entirely around the circumference of the pan.

It will be observed that the sulphurets in the trough, 3, 3, are maintained at the same elevation as the sulphurets and overlying sand in the body of the pan. It will be further observed that by no possible means can the sand in the latter pass to the former in such quantity as to form any considerable percentage of the amount saved. The advantages of this improved pan are continuous action, requiring no attention except to remove the receiving vessels as fast as they are filled from the openings shown on the right of figure 2, simplicity in construction, and durability and cheapness of cost. These pans are made at the Miners' Foundry, on First street, where they may be seen in constant operation, and where the inventor, Mr. Hungerford, can also be seen and consulted. Application for letters patent from the U. S. Government has been made by Mr. Hungerford, through the Mining and Scientific Press Patent Agency.

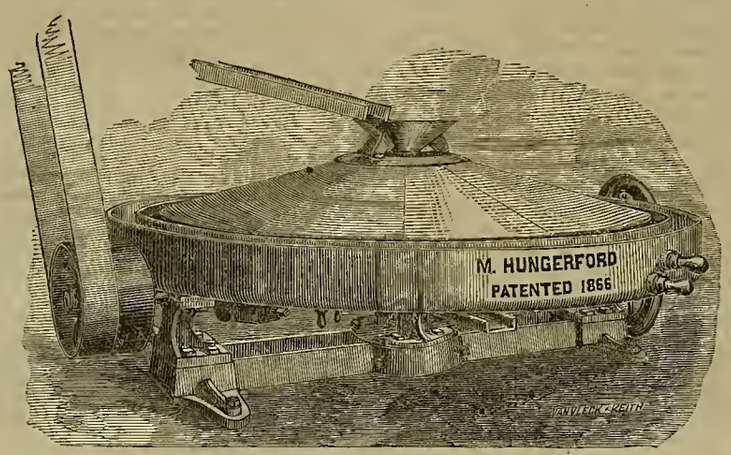

FIG. 1—HUNGERFORD'S IMPROVED CONCENTRATOR.

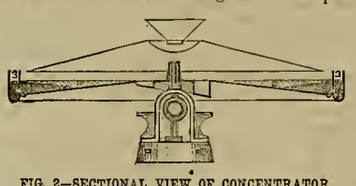

FIG. 2—SECTIONAL VIEW OF CONCENTRATOR.

California Merchandise Exports.—A review of the merchandise exports of California, for the past ten years, presents much that is encouraging to the future growth of the commerce of this city. Our exports to the East consist almost entirely of articles of domestic produce, such as hides, wool, wine, barley, ores, quicksilver, etc. The export of hides shows a steady gain during the time specified. The same remark will hold good of the wool export, up to the time we commenced manufacturing our own woolens. The increase in the value of our exports to New York and Boston, has progressed quite steadily from $1,113,500 in 1856, to $6,159,100 in 1865. Over two-thirds of the whole amount of gain has been made during the past five years. Our commerce with foreign countries has been equally satisfactory—the only exceptions relate to our trade with Mexico and British Columbia. The cause of the decline with the former has of course been due to the unhappy political state of that country, which must at longest be but temporary. The mining excitements in the latter country will account for the fluctuations there. The present annual amount of our exports to British Columbia are about $1,250,000 in value; to South America, about $500,000, and to all other places about $520,000—making a grand total of nearly $8,500,000. For the present year they will be largely increased by the enormous grain crops, which are now almost ready for the sickle, and which, if shipping is found to take them away, will add several millions to the aggregate value of the shipments of 1866-7.

Medical Topography of California.—We have received a copy of Dr. Logan's "Report on the Medical Topography and Epidemics of California; extracted from the transactions of the American Medical Association." It is a continuation of a previous similar report, by the same author, on the diseases and meteorology of the Sacramento Valley, from 1849 to 1858. The subject is one of the greatest interest; yet an unaccountable indifference in regard to it, seems, according to Dr. Logan, to have been shown by the majority of medical men in the State. Widely distributed circulars soliciting the co-operation of these gentlemen, met with "few and meager responses;" although a couple of hours' writing from each would have been of material assistance. The author therefore only claims for the pamphlet that it describes these phenomena in a general and imperfect manner; expressing a hope that it is only a step towards a more full and systematic reconnoissance of a region like California, which is in this respect a world within itself.

"F. A. H."—We are always pleased to hear from "F. A. H.," however much we may differ from him in opinion. Our correspondent is mistaken in supposing that we understood *him* to say that the "auriferous gravel deposits" are of a post-tertiary age. We did not, at the time, know what his opinion was; but we took it for granted that those deposits were to be referred to that age. In our qualification we merely intended to express the possibility of a misunderstanding with regard to what "auriferous deposits" he referred to in his communication. We should be pleased to hear more particularly with regard to the "cave of quartz" to which he refers in his private note. Does the superincumbent gravel have the appearance of having been disturbed by it?

Charge of Destroying Mining Records.—The Reese River *Reveille* of June 4th, says that C. L. Straight was arrested on Saturday by officer Bodrow, on a warrant issued by Justice Harmon, on the charge of destroying the records of claims in the Philadelphia district, which he subsequently organized as the Silver Bend district. After completing his infamous work, Straight located a number of ledges in the new district by right of discovery. As the act was committed in Nye county, he was held to bail in the sum of $1,500 for his appearance before Justice Bowman, at Ione City, on the 15th instant.

Queen Victoria teaches a Bible class every Sunday.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

California Peat or Turf—A Future Fuel for Technical Purposes.

Editors Press:—New York Island, in the San Joaquin river, below Antioch, belonging to W. M. Brown, contains about 800 acres of evergreen land, which assumes now the shape of a productive farm. Fruit trees, vegetables, strawberries, etc., recently planted, grow admirably in a soil formed by a bed of peat of late formation, and still progressing. How deep this turf extends is not known, but five feet below the surface it does not look much different from that at the top. The bed extends not only over the whole island, but also through the other islands near by, and probably also the greatest part of the tule and swamp-land along the Joaquin may be formed by peat.

The New York Island turf is an accumulation of vegetable matter, in which roots predominate. When perfectly air-dry, one cubic foot weighs thirty-four pounds, sufficiently compact for any use. Mr. Brown pressed a piece, taken three feet below the surface, under an ingenious cheese band-press, of his own manufacture, quite easily to a compact brick, thereby reducing the volume to nearly one-third.

A blow-pipe analysis showed the following compound of an air-dried sample:

Hygroscopic water	13.00
Combustible gas	46.70
Carbon	21.80
Ashes	18.30

The adhering water shows a very small percentage, and is probably due to the California climate. The ashes are composed principally of silicia, with a small proportion of iron, clay, lime and sulphur.

The European sorts of peat contain an average of twenty-five per cent. of water when air-dry. The value of the peat depends a great deal on the quantity of adhering water, by which the burning effect is considerably modified. The New York Island turf produces from eleven to thirteen times its weight of lead, which gives a caloric power of 0.33 to 0.88 (taking that of carbon=1). Wood, with twenty per cent. water, has 0.36 caloric power—a little higher than that of the turf. There are other kinds of turf, with a small percentage of ashes, which surpass the wood in regard to caloric power. The French turfs used for technical purposes reduce from eight to seventeen parts of lead; the sorts on the Harz, eleven to eighteen; those in Saxony eleven to eighteen.

The air-dry turf furnishes a moderate heat for calcination of different stuff, roasting of ores, under seething kettles, and for cupelation of lead. It is used in a raw and charred condition with other fuel in furnaces for smelting iron ores; but the most important use of the peat is for puddling and welding furnaces after being converted into gas. About twenty years ago I built a turf gas-welding furnace, which gave a splendid white heat for welding of old rails.

The turf-gas furnace is very simple. Seimon's method of utilizing the heat after it passed the furnace (described in the Mining and Scientific Press, June 2d, 1866) is very ingenious, but the advantage is not so striking as it seems. Firstly, it is not necessary but even wrong to build the gas generator so far off from the furnace that the gas on its way cools so much as to require heating again, except the gas is taken from an iron ore-smelting furnace. Another defect of Seimen's furnace is the want of a fire-heating place for the material which in this case has to be charged cold. What is gained by the brick chamber is partly lost again by cooling down the furnace with a cold charge. It makes a great difference in time for welding, whether, for instance, puddling bars are introduced cold or red-hot. The heat cannot be uniform, using the brick chambers, as gas and wind consume by degrees the heat, being then at the end of the half-hour, after which the chambers have to be changed a great deal cooler than at the commencement. For welding purposes the irregularity of heat is most provoking.

Artificially-dried peat is also employed directly for puddling of iron, but it is less suitable for blast-furnaces, partly on account of the high amount of ashes which the peat generally contains, and also on account of it not being solid enough, but the loose condition is again favorable for the gas generator. The carbonic acid produced above the grates transforms perfectly into carbonic oxyd.

At Brown's Island the turf could be taken out easily to the depth of five feet, although the tide is considerably there yet.

San Francisco, June, 1866. G. Kustel.

[Written for the Mining and Scientific Press.]

Mining in Reese River.

Editors Press:—I am much pleased to assure you that our shipping report shows a marked increase in the shipment of bullion of late days over that of former times, showing that all that is necessary to make this country productive in bullion is the proper application of money. Capitalists are now beginning to see their past follies and extravagances, the suicidal manner in which they have invested; doing so, in many instances, without even glancing at their purchases, and always too ready to place dependence on their own judgment.

The theory (if it be theory) that experience is the only teacher of the science of mining is beginning to dawn upon them, and some seem to have a proper appreciation of the ability of practically-taught miners, though in most cases acting in regard to them in only a half-way measure—their object being economy; but in their manner of economizing they show their utter ignorance.

If "economical-meaning agents" would engage practical men, at a reasonable salary, as superintendents of their mines, instead of undertaking the duties themselves, or placing in such position some friends or relatives who must have a position, much more economy would be shown.

There are a thousand and one extravagances and misapplications of money shown in inexperienced men mining that would be avoided, and much valuable time saved, by using judgment through proper knowledge of the work. It would be far better to pay a good salary to men having a knowledge of mining, and through them accomplish something, than to pay the same salary to one inexperienced, and through him contract immense liabilities, besides leaving his work in such a position that it is of no further use, and must necessarily be done over.

How many instances there are here where there have been thousands of dollars expended in mining, and to-day the owners are no nearer the consummation of their hopes than the day they organized their companies. The country is dotted with such instances; go where you will you will find them. After the harm is done, and their own inability proven up to them, by ill-success of their different enterprises, and money for further development is getting scarce—their energies worn out through ill-success—to them a blank, unproductive future is ever present. They shut down, cease all operations, and "Wilkins Micawber-like" wait for something to turn up. There lie their mines, on which there has been much money expended to no purpose, their mill "hung up"—no more rattling of machinery and hammering of stamps for a time. What are they waiting for? For advices from their Trustees in the East, or the arrival of the President of the company, when it will be immediately decided what will be done. The President does arrive, and sees the mill and mines, and traces of something that has been undertaken to have been done; but sees it not in the light it actually is. He does not have the remotest idea of the cause of the failure of the enterprise. Is it money? No! if it were, he has an abundance at his command; and, in truth, he will never learn the cause of the ill-success of his company, because of getting all his information in the matter from those having bad charge, and through whose ignorance and inexperience the enterprise has proven so far a failure. With them alone he consults and exchanges ideas, giving them the credit not due them, of having a knowledge of mining, acknowledging utter ignorance upon the subject himself. His main object being to fix things up and get back home; so as a saving clause it is mutually agreed to get a new superintendent; it may bring them luck. The new superintendent is at hand, having been so constituted before sailing for the field of his labors in company with the President. It looks to me "like stepping out of the frying-pan into the fire" to make any such change. But the company want a change of officers, and this new hand being in delicate health at home, it is thought a change of air and scenery will improve him; or he may be a dear son of some dear friend who is a member of the corporation. There are a thousand reasons why he should have the position. He will be far removed from the temptations and seductions of a city life; his morals will be bettered in the change, besides not drawing so heavy on his dear patron's private purse; so the change is made, and, in reason, ask to what purpose?

Can this blindness to self-interest ever exist with the owners of our mines? Is there no possible way to open their eyes to the ruinous course they are pursuing thereby—not only engulphing themselves, but dragging with them, either through total ignorance of purpose, or through sinister motives, the reputation of the country as a mineral region, and also the dearly-prized remnant left to the masses—"the hope of a bright and prosperous future for our country?" The state of mining affairs is, indeed, discouraging to one looking at it practically.

It must be remembered that there are between seven and eight thousand souls to feed in this section. There are, also, two and a half million of dollars standing charged to the country for mills and machinery alone. Our bullion shipments, until lately, do not foot up over $30,000 per month. It shows on its face that the country is not self-sustaining, that it is getting more deeply indebted daily. Neither does it produce enough to feed its population, aside from paying the indebtedness of $2,500,000 already invested, standing in useless mill property, as a living monument to the folly and ignorance of the heads of such enterprises; and, too, the interest and accruing interest and accruing expenses must be paid from the products of the country; and, again, two-thirds of the gross amount of bullion shipped must be charged to said bullion, as expense of mining and milling the ores from which it was extracted.

Mineral is here, and in abundance, which no one questions for a moment who has taken the trouble to be observing. I might here make mention of the Yankee Blade mine, situated in this district, about two miles north of this city. This mine has been worked of latter years by a "miner," (E. McVicar,) a thorough miner, having gotten his experience through the constant use of mining implements for the last thirteen years or more. Under his management the mine has, after much labor, been made productive. His work is all done in a permanent and workmanlike manner. I would refer the inexperienced wishing to get a knowledge of mining to his manner of working, whose plans, if they follow, will earn them much more credit than by working after their own ideas. There are now about seventy tons of the ore at the Midas, or New York and Reese River company's mill, from said mine, and in course of reduction, which ore will average $300 per ton gross. If all companies would adopt the same plans of working, and use the same energy that this company has in all their enterprises, there would be a vast difference in this country for the better.

Rich and immense lodes are being discovered daily. More excitement and energy is being shown in discovering new ledges and forming new mining districts than in the early days of the country. The new discoveries made in Nye county, in and about Twin River, Hot Creek, Philadelphia district, and other adjoining districts, are proving rich and extensive, far beyond the expectations of the discoverers. Much excitement prevails here in regard to the mines of the Philadelphia district. It is situated seventy-eight miles southeasterly of this place, and judging from reports and the interest moneyed men are taking in it, there must be something above the average veins found.

The fact of larger and better defined ledges being found elsewhere than in this immediate vicinity, will cause much speculation with those having mills here who have as yet accomplished nothing in their mining, with regard to the removal of their machinery to those districts, where ores can be found on the surface, thus obviating the necessity of mining; and I am of opinion that, ere long, many of our heaviest companies will be interested to such an extent in outside districts that they will, as a last resort, remove to them. It would be even better for the country did they, as there are few of them doing any good here, while a change of location may be advantageous to them as well as to the people at large. Bullion, and in abundance, is our only salvation, not only to the general advancement of the country, but to give encouragement to those already deeply interested, and to those desirous of investing, but dare not, they seeing that their neighbors meet with no success or returns. Let capitalists banish from their brain excitability, rooted there through enormous and over-drawn representations made by our anxious sellers. Let common, hard, practical reason have sway for a day, and my word for it, every one will be better satisfied and better paid for the time spent by them in Reese River.

Austin, June 11, 1866. Progress.

[Written for the Mining and Scientific Press.]

Letter from Placer County.

by our traveling correspondent.

[Continued from Page 355.]

Editors Press:—Before reaching this place I had ascertained that a considerable interest had been waked up here a few months previous, by the discovery of copper and some promising lodes of gold and silver-bearing quartz. The fever of excitement—the usual attendant of similar discoveries—has now subsided, giving place to a steadier flame and to organized action. Some ten or twelve companies are now vigorously engaged in prospecting for the precious metals, with much in the way of indications and of actual results to stimulate to further effort. At least five or six locations have been made for copper on a range lying a mile or more to the east of the village, and extending from three to four miles in a northwesterly direction. These claims, unlike thousands of others on the coast, have not been taken up, recorded, and then left, not to be heard from until the next new excitement, but, with scarcely an exception, are now actively worked either by shaft or tunnel. Having accidentally met with a conveyance going directly to one of the best developed of these, situated north of Bear River, my eyes were soon gratified with the sight of copper ore not often seen at the same degree of depth. Here I learned that this mine had been visited only a few weeks before by the senior editor of the Mining and Scientific Press, and that a favorable notice of it had already appeared. It is, consequently, only necessary to state on the testimony of those engaged in its development that it has continued to improve since that date, both in respect to the quantity and quality of the ore.

Madame Rumor, my bosom friend and constant companion, more than once intimated that large sums had been offered and refused for this mine, but as the figures varied by many thousands, we withhold them for the present.

As another season will doubtless do much towards developing and determining the true value of this and the other copper claims of the neighborhood, we devote the remainder of the space to the gold belt situated to the west of these, and consisting of a series of parallel lodes running in the same direction.

The claims here located are the Telegraph, Imperial, Montana, La Fayette, Collax, Woodstock, Rising Sun, and a few others, all more or less opened and advantageously situated within a mile of the Central Pacific Railroad, a fact in itself not insignificant, when the cost for the transportation of heavy machinery is taken into consideration.

A belief prevails extensively throughout the community that these mines lie on a direct range with the Allison Ranch and those of Grass Valley, an opinion based not only on their geographical position, but also on the general similarity in the sulphurets and the striking family likeness in the quartz of the respective sections. The majority of these claims are now being worked, and operations will soon be resumed upon others. The Montana, the first reached after leaving the village, consists of 2,400 feet, and has a shaft of fifty feet. The La Fayette, lying next in order, contains 2,200 feet, and is opened by tunnel of upwards of 300 feet in length, cutting two veins varying from two and a half to three feet in thickness. They have a dip to the east and the usual northwesterly direction. The quartz at the present depth is of the white and bluish cast, containing a good share of sulphurets. Mr. William Hopper, the superintendent, I believe, of the mine, informed me that an assay had been made of some of the rock from near the surface, by Waters & Co., of Sacramento, which ran as high as $47.37 per ton.

THE COLFAX,

Situated immediately across the ravine, and northwest of the La Fayette, was one of the first locations, and consists of some 1,600 feet. The stock is owned chiefly by Messrs. Hurd, Wheeler and others. The company have cut a lode of at least nine feet in thickness, by means of a tunnel of some 200 feet in length, striking the vein at a depth from the surface of about ninety feet, showing a blue quartz and the usual mineral-bearing sulphuret. I learned that some 700 pounds had been worked by

mill process in San Francisco as a test, which yielded about nine dollars to the ton, in gold and silver—the latter preponderating—and that different assays from the same had run from $15.50 to $45 per ton.

On the ravine a short distance below the Colfax, Sutton & Bro. had just completed a small arastra for the purpose of crushing the rock from their claim, the particulars in regard to which I did not learn. Crossing the hill a few hundred yards to the north in company with Mr. P. McMahon, the secretary of the

WOODSTOCK,

Who had kindly tendered his services to show me the different claims of this new and promising district, I soon reached the shaft of the company. It started on two small veins, which, gradually widening, had come together at the depth of twelve feet, making a width of lode at thirty-eight feet in depth of not less than six feet. No assay had been made of the rock, but a good prospect had been obtained in the hand-mortar in the form of free gold. As the quartz is of a bluish color, and similar in texture and in other respects to that of the Colfax and La Fayette, it probably contains also a good proportion of silver. The Woodstock consists of 1,800 feet, and is owned by Mr. McMahon and other citizens of Colfax.

Not far from this, and a short distance to the east, is

THE RISING SUN,

Which, like its great namesake, has an apparent course at present from the east to the west, with quartz of a yellowish line, containing free gold, and well distributed through the vein. The company, made up of Messrs. Coleman, Neff and others, lay claim to some 3,000 feet, and have sunk a shaft to the depth of sixty feet on their lode. I was informed by one of the company that the vein had an average thickness of twenty-two inches. Sixteen tons of the ore was recently worked at the Hausting Hill mill, in the neighborhood of Grass Valley, which crushed at the rate of $27.27 per ton, mostly gold, I believe, and running 907 fine.

A few months more will probably develop many interesting facts concerning the mines of this vicinity, of which you will be duly informed. In the meantime, I remain as ever, your PROSPECTOR.

Colfax, June 6, 1866.

[Written for the Mining and Scientific Press.]

The Auriferous Gravel Deposits.

EDITORS PRESS: "Is it possible for those ancient auriferous gravel beds, situated along the western flanks of the Sierra Nevada, to be intersected by metalliferous quartz veins?" I believe geologists do not claim to know the exact age of metallic veins and auriferous deposits, and I hope you will pardon me if I should not consider the above question finally disposed of. I am at a loss to understand how you should infer that I believe the gravel and cement deposits situated high up on the sides of the Sierra Nevada, and extending from the Feather to the Merced river, are of no more ancient formation than the tertiary period. When Prof. Whitney avers he has found quartz veins intersecting a formation containing mullusca, belonging to the cretaceous or even a much later period, I can readily accept it as truth; but if he or any other man jumps to the conclusion that those ancient gravel deposits, above referred to, are of as recent formation as the cretaceous period, he may find there are things he does not dream of in his philosophy. While writing a communication, which appeared in the columns of the PRESS, under the title of "Age and Formation of Igneous Rocks," I did have a sort of a general idea that no auriferous ores found their way to the surface earlier than the new red sandstone period, and that consequently the auriferous gravel deposits must have been of subsequent formation. My object in writing the above mentioned paper was two fold; first, to show that the earth's crust had become solid to a greater depth than the metalliferous stratum; and secondly, to show what loose ideas scientific men generally have of the formation of igneous rocks, when such scholars as Dr. Jackson are left to infer, that the molten interior of our globe must be of a metallic nature, because, at ordinary temperatures, most metals are more dense than any known rock; forgetting that metals expand more rapidly than earths at an increased temperature! And the readers of that paper will observe, too, that only such facts were used as have been before the world in standard works for years.

Since writing that paper, I have acquired new facts, and have better digested such facts as were then in my possession, and consequently have more definite ideas of the age of auriferous ore (and deposits) and the manner of their being brought to the surface, and have been led to the unavoidably conclusion that these ancient gravel and cement deposits were formed much earlier than the new red sandstone period.

I am very much interested in the description of the formation of Table mountain, by J. A. Jennings, and with him believe "it opens to us an interesting chapter in geological history." If the lava, that forms the mass of the mountain, was of sufficient fluidity to follow a river channel twenty or thirty miles, it must, at the time of its formation, have been level from bank to bank, or in an easterly or westerly direction. Does the surface of the mountain dip in a westerly direction? If so, by determining the angle, the method of ascertaining how much the mountain has been upheaved since its formation, would readily present itself to the mind of the mathematician.

F. A. H.

[Written for the Mining and Scientific Press.]

From Sierra County.

EDITORS PRESS: This once flourishing mining town, by fire and decrease in the value of mines has gone down somewhat; but there are still some good diggings here yet. The Young America claim, on a gravel deposit, has a tunnel 1,600 feet long, penetrating the hill in a southeast direction, which developed a good paying condition. For four years it has been constantly yielding an average of six dollars per man, daily. The tunnel was run at a cost of about two dollars per foot. Mr. H. Holling is the superintendent and one of the principal owners.

THE LEE CREEK DIGGINGS,

Below Forest City, consists of a small claim, but yielding from five to ten dollars to the man per day. For ten years it has been a constant thing, and has preserved its value, while many other larger and at times more valuable mines have run out. It is owned by Mr. Charles Lee and son, two of the oldest residents of this place.

The Live Yankee, at one time so fabulously rich, has failed to give out its immense wealth, and at present, is worked at only enough to pay wages. It is estimated that $1,000,000 has been taken from this mine in the past.

W.

Forest City, June 5, 1866.

CALIENTE DISTRICT.—*Editors Press:* Your correspondent "D.," in writing about the Clear Creek mines, must have been misinformed about the Caliente district. The district is *not* several years old, nor was the mill built several years ago. The district was organized last July, and the mill was finished last January only; and a misunderstanding between the owners was the cause of its stopping. It is now at work again, under Judge Walsh, formerly of Grass Valley, who speaks in the highest terms of the district. Several arastras have been at work there since January, getting from thirty-five to sixty dollars per ton from the rock. The advantages for working the Caliente leads are superior to those of any of the neighboring districts, and the operations of Judge Walsh will soon prove its value.

Professor Blake is now visiting those mines, and we may soon enjoy *his* opinion as to the Clear Creek mining region. When the leads in that region shall be well opened, they will disclose wonderful wealth. Give them but half the development that Grass Valley now enjoys, and they will present unequalled attractions to men of means. The great want is want of means, but they will soon be supplied.

June, 1866. M.

D. —— accepts the correction with thanks.

A WORD FOR LITTLE GIRLS.—Who is lovely? It is the little girl who drops sweet words, kind remarks and pleasant smiles as she passes along; who has a kind word of sympathy for every girl or boy she meets in trouble, and a kind hand to help her companions out of difficulty; who never scolds, never contends, never teases her mother, nor seeks in any way to diminish, but always to increase her happiness. Would it not please you to pick up a string of pearls, drops of gold, diamonds or precious stones, which can never be lost? Take the hand of the friendless, smile on the sad and dejected, sympathize with those in trouble, strive everywhere to diffuse around you sunshine and joy. If you do this you will be sure to be beloved.

THE majority of the Teachers in the Department seem to favor opening the Schools at 9 o'clock A. M. instead of 10.

Mechanical.

Bessemer Steel—Lake Superior Iron.

Various experiments made to determine the tenacity of Bessemer steel, have shown that while wrought iron will bear from 40,000 to 60,000 pounds per square inch, and the best common steel 93,000 to 124,000 pounds, Bessemer steel will resist a pressure about twice that of wrought iron, and nearly as much as the best cast steel. Four experiments with Bessemer steel, as compared with the best common steel, resulted as follows:

No. 1 broke at	117,183 lbs.	per square inch.
No. 2 "	119,043	"	"
No. 3 "	104,283	"	"
No. 4 "	121,841	"	"
Best common steel broke at	121,000	"	"

Bornemau says that the softest Bessemer steel is at least as strong as the best Swedish chain iron, and its strength increases with the per centage of carbon to one per cent., when it is equal to about double the strength of the best chain iron.

Experiments recently made in Sheffield, England, with various kinds of steel, show that the absolute strength of any steel increases as the carbon increases, till it reaches 1.25 per cent., after which it rapidly decreases in strength. These experiments have shown that steel with 0.63 to 0.95 per cent. of carbon, is at least fifty per cent. stronger than wrought iron. Such steel is especially adapted for machinery of all kinds, since it is not made crystalline by repeated jars, as is the case with wrought iron.

In working Bessemer steel, two qualities are observable, which distinguish it from wrought iron; first, it is completely clear of slag, and second, it may be welded at a much lower temperature. When rolled or hammered this steel is completely homogeneous. The rough ingots sometimes have bubbles in them; but since the walls of these bubbles are entirely clear of oxids or slag, they weld together under the rolls or the hammer so thoroughly, that when the bar is broken not the slightest trace of them can be found.

It may not be improper, in this connection to state that the quality of the Lake Superior iron is conceded to be superior to any iron in the world, as is shown by the following analysis, giving the strength per square inch in pounds:

Salisbury, Conn., iron	58,000
Swedish (best)	58,134
English, cable	59,105
Center Co., Pa	59,400
Essex Co., N. Y	59,960
Lancaster Co., Pa	76,969
Com. English and American	30,000
Lake Superior	80,582

A TRIUMPH OF SCIENCE.—As an evidence of the capacity of science to penetrate even to the most minute of the operations of nature, the late discoveries with regard to the nature of blood may be most appropriately referred to. Human science has brought to the knowledge of man the fact that the liquid portion of the blood is colorless, and that its red appearance is due to the presence of innumerable little bodies floating in it, which are so small that three millions of them are contained in a drop which may be suspended on the point of a needle! The microscope has shown us that these minute bodies are corpuseles or sacs filled with a compound substance, and it has been ascertained what both the film of the sacs and its contents are composed of. Each one of these little bodies has its own life. They are formed and grow and die; and it is calculated that nearly twenty millions perish at every pulsation of the heart! The revelations of the microscope have, of late, led us to hesitate as to which should most challenge our wonder and admiration; the magnificent and grand, or the minute and microscopic, among the wonderful works of the Creator.

FITTING THE JOURNALS TO BALANCE WHEELS. A balance wheel which it is necessary to take off from its journal, should have its hub bored out and the hole made tapering. The journal should have a corresponding taper, and a nut on the end for securing the wheel, instead of a key fitting a slot. The taper should correspond with the hole, and should not be more than one-eighth of an inch in the diameter of the hub.

TEST FOR TELLURIUM IN MINERALS, ETC.—The ordinary blow-pipe test for tellurium, in which a sublimate is obtained which melts to colorless drops of oxids of tellurium, is not always sufficiently delicate. Prof. Kobell, therefore, recommends heating the powdered substance with concentrated sulphuric acid. When the reaction first commences the acid becomes red, but when the heat is increased this color disappears. On the addition of water to the red liquid, a blackish-gray precipitate of tellurium is produced, and the liquid becomes colorless. Nagyagite and blatterertz do not give the red color, but a turbid brown liquid which after standing some time appears hyacinth red, and gives the gray precipitate with water.

A NEW GOLD SEPARATOR.—A gentleman of this city, has contrived a new method of separating gold from the dust, by what we infer to be a dry process. It is described as follows: It is made up of a series of sieves, of the same size but of graduated apertures, which are moved with a semi-circular motion, one above the other, and are so arranged as to save the gold, from the coarsest lump to the finest particle. The extraneous matter is separated and thrown out, and the gold is saved at the bottom of the series of sieves.

THE VOLTAIC PILE—REWARD FOR EXTENDING ITS APPLICATION.—Our Paris correspondent informs us, says an exchange, that the Corps Legislative has just adopted the following projected law:

ART. 1.—A prize of 50,000 francs to be awarded to the author of the discovery which will render the Voltaic Pile applicable with economy to the following purposes: To industry as a source of heat, to illuminating purposes, to chemistry, to mechanics, and to practical medicine. The rules to be adopted for the conditions and the judgment of the said competition will be determined by a decree.

ART. 2.—In case that no prize shall have been awarded at the period fixed by the above article, the competition can be prorouged, by a decree of the Emperor, for a new period of five years.

SHAFTING.—When long lines of shafting communicate power, they spring and buckle greatly when the work is variable. The twisting strain tends to wrench the shaft asunder, and causes the machinery to run unevenly. This is often a source of great loss, and the remedy is to put a moderately heavy fly-wheel on the extremity of the shaft, near the hanger. This equalizes the power, so that no change is perceptible, and has been successfully tried in several large cotton factories.

PLATINUM, being a soft metal, is not fit to receive a sharp edge for any practical purpose, except when subjected to a voltaic current, which instantly imparts to it a hard temper, similar to that of steel; but this hardness ceases with the current that produced it. At a white heat (1,500° centigrade), produced by electricity, a platinum blade will cut the flesh through in an instant, and its action may be regulated at present by modifying the temperature.

THERE is now a pretty little steamer on the Thames which runs ten miles an hour without paddle-wheel or screw. She takes in water well forward, and expels it aft under each quarter, and can steer without her rudder, and can stop in less than her length when going at full speed.

RECENT experiments conducted by the Government of France, show that the water-tanks on board ship a should be coated inside with tin, and not with galvanized iron, as at present. It was discovered that the water, under certain various conditions, dissolved the zinc off the iron, and rendered it injurious to health.

IRON ORE has been discovered at Groton, Conn., which yields 75 per cent. of pure iron. The vein, at the point of discovery was two feet wide, but increases to a width of seven feet, with an average thickness of eleven or twelve inches.

ANOTHER CALIFORNIA INVENTION.—Mr. L. H. Wooley, of this city, has made an alleged improvement on the common bridle, having for its design the more easy management of unruly horses.

COTTON IN BARRELS.—Dr. Hutchinson, of Mobile, has adopted a plan of packing cotton in barrels, which the Mobile *Tribune* approves, as one calculated to save at least ten per cent. in cost over the usual mode, besides greatly lessening the expense of freight.

AMERICAN GLASS.—It is stated that in the production of glass for achromatic lenses, the American glass makers beat the world.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD

Friday, June 15.

AFTERNOON SESSION.

7 shs Belcher at 192½ per foot.
1 sb Belcher at 190 per foot, s 30.
4 shs Yellow Jacket at 695@690 per foot.
1 sbs Yellow Jacket at 690 per foot, s 3.
7 shs Chollar-Potosi at 200@202 per ft.
21 shs Chollar-Potosi at 203 per foot, b 3.
8 sbs Alpha, G. H., at 260@265 per foot.
8 sbs Alpha, G. H., at 270@275 per ft, b 3.
72 sbs Ophir at 350@360 per foot, b 30.
24 shs Ophir at 350@340 per foot.
12 shs Opbir at 340 per foot, s 30.
1 sh Savage at 1030 per foot, b 30.
10 shs Bullion at 60 per share, s 30.
5 sbs Imperial at 111 per share.
10 shs Imperial at 110 per share, s 3.
107 shs Confidence at 30@35¾ per share.
15 shs Confidence at 30 per share, s 3.
30 shs Lady Bryan at 2¾ per share.
10 sbs Baltimore American at 1 per foot.
20 shs Spring Valley W Co at 69½@69 p et.
$15,000 Legal Tender Notes at 73 pr ct, s 45.
$15,000 Legal Tender Notes at 73, s 30.
$5,000 U. S. 7-30 Bonds, June issue, 75c. s 30.
Amount of sales.....$ 39,648 00

Saturday, June 16.

4 shs Gould & Carry at 800 per foot,.
8 shs Chollar-Potosi at 202@202 per foot.
7 shs Chollar-Potosi at 212 per ft. b 20.
15 shs Chollar-Potosi at 201@202¾ pr ft, s 3.
8 sh Chollar-Potosi at 206 per foot, s 30.
22 shs Belcher at 195@201 per foot
1 sh Belcher at 200 per foot, s 3.
6 sbs Belcher at 20.@197½ per foot, s 15.
6 shs Yellow Jacket at 710@692½ per ft.
2 shs Savage at 1050@1060 per foot, h 30.
4 shs Savage at 1045@1050 per foot.
96 shs Ophir at 345@347½ per foot.
24 shs Ophir at 357¼ per foot, b 30.
24 shs Ophir at 347½ per foot, s 3.
12 shs Ophir at 347½ per foot, s 10.
12 shs Ophir at 350 per ft, b 3.
50 shs Ophir at 347½ per foot, s 6.
60 shs Exchequer at 7 per share.
230 shs Lady Bryan at 3@3¼ per share.
40 shs Lady Bryan at 3½@3¾ per share, s 3.
15 shs Bullion at 62½ per share.
25 shs Bullion at 61@59 per share.
55 shs Overman at 29@28 per sh.
5 shs Overman at 28 per foot, s 3.
20 shs Confidence at 30@27 per share.
2 shs Cal Steam Nav Co at 56 per cent, s 5
3 shs Cal Steam Nav Co at 56 per cent, s 3.
2 shs Cal Steam Nav Co at 55 per cent.
$6,000 U. S. 7-30 Bonds at 75 per cent, s 30.
$15,000 Legal Tender Notes at 72c, s 60.
$15,000 Legal Tender Notes at 72¾, s 30.
Amount of sales.....$ 61,200 00

Monday, June 18.

24 shs Ophir at 320@337½ per foot, s 3.
60 shs Opbir at 320@335 per foot.
60 shs Ophir at 342½@330 per foot, b 30.
12 shs Opbir at 330 per foot, b 3.
62 shs Chollar-Potosi at 200@190 per ft.
5 shs Chollar-Potosi at 192½ per foot, s 3.
10 shs Chollar-Potosi at 196@195 pr ft, b 30.
2 shs Chollar Potosi at 190 per foot, b 10.
4 shs Yellow Jacket at 680@700 pr ft, s 30.
13 shs Yellow Jacket at 710@680 per foot.
3 sbs Yellow Jacket at 680 per foot, s 3.
1 sh Yellow Jacket at 690 per foot, b 30.
4 shs Crown Point at 1000 per foot.
12 sbs Belcher at 195@175 per foot.
4 shs Belcher at 185 per foot, b 3.
9 sbs Savage at 980@1000 per foot.
2 shs Hale & Norcross at 1090 per foot.
8 shs Gould & Curry at 800 per foot.
12 shs Alpha, G. H., at 240@237½ per foot.
5 shs Overman at 26 per share, b 10
80 sh Overman at 22@25½ pr foot
6 shs Overman at 23¼ per share, b 6.
10 shs Imperial at 107@105 per share, s 30.
10 shs Imperial at 107@108 per share.
20 shs Lady Bryan at 3¾ per share.
10 sbs S F Gas Co at 120 per cent
50 shs Spring Valley Water Co at 68¾ p ct
2 shs Cal Steam Nav Co at 55 per cent.
$5,000 U. S. 7-10 Bonds, June issue, at 72 per ct
$ 9,000 Legal Tender Notes at 70 per cent.

AFTERNOON SESSION.

6 shs Yellow Jacket at 685 per foot.
2 shs Yellow Jacket at 690 per foot.
2 sbs Yellow Jacket at 695 per foot.
3 shs Yellow Jacket at 690 per foot, s 3.
3 shs Yellow Jacket at 690 per foot, s 10.
12 shs Ophir at 310 per toot.
36 shs Ophir at 307½ per foot.
12 shs Ophir at 300¾ per foot, b 2.
12 shs Ophir at 306 per foot.
1 sh Belcher at 180 per foot.
2 shs Belcher at 177½ per foot.
2 sbs Chollar-Potosi at 185 per foot, s 30.
10 shs Sierra Nevada at 3 per share.
10 sbs Sierra Novada at 3¼ per share.
10 sbs Lady Bryan at 2 per share.
50 shs Sierra Nevada at 1¼@1¾ per sb.
12 shs Confidence at 27 per sharo.
10 shs Confidence at 28 per sh.
10 shs Overman at 23 per share.
5 shs Overman at 24 per sb, b 30.
121 shs Imperial at 105 per share, s 30.
45 sbs Imperial at 107 per share, s 30.
2 shs Imperial at 108 per share.
2 sbs Imperial at 108 per share.
2 sbs Cal. Steam Nav. Co. at 50¼ pr ct.
2 shs Cal Nav Steam Nav Co at 50 per ct.
3 shs Cal Steam Nav Co at 49¾ per cent.
1 sb Cal Steam Nav Co at 50¾ per ct, b 3
Amount of sales.....$112,728 00

Tuesday, June 19.

96 shs Ophir at 295@300 per foot, s 30.
84 shs Ophir at 300@295 per foot.
12 shs Ophir at 330 per foot, b 10.
24 sbs Ophir at 300 per foot, b 30.
12 sbs Opbir at 295 per foot, s 10.

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, June 23, 1866.

The loan demand for money has improved this week, and more activity prevails in bank and upon the street, hut the requirement is not of sufficient urgency to affect the usual rates of interest for acceptable securities, or to impede the negotiations of parties in good credit. The effect of ths recent withdrawal of at least half a million of dollars, loaned upon mining shares and other collaterals, is subsiding, and it is more than probable that all the capitnl hitherto employed for stock purposes will soon flow into tbe same channels again.

Receipts of treasure from the interior mining districts continue fully up to the usual average, and since last Saturday have amounted to $850,000, making an aggregate of nearly $3,000,000 thus far during the current month.

A good demand still prevails for hullion, although since the sailing of the last steamer there is less inquiry for shipping purposes. Gold Bars may he quoted at 870@880, and Silver at 1½@2 ₱ cent. premium.

Legal Tender Notes have been dealt in to the extent of $90,000, within a range of 72½c, seller 30, @ 69c, seller 30, closing at ahout 71c hid, 72c asked. Quotations for gold in New York, recently have fluctuated violently, and the latest figure (to the 19th inst.) is ahout 160, with a partial cessation in the export demand, and a still further decline prohahle.

The Mining Share Market has exhihited rather more steadiness, and most leading stocks have been less freely offered. Some of these claims, as is well known, are at present yielding handsome profits, and recent developments would seem to inspire tbe helief that they are not likely to become less productive for some time hence, while others, although not yet in a condition to pay dividends, are accumulating a fund for stockholders. Added to this, more economy and hetter judgment has of late marked the management and general policy of different companies, and dealers in these stocks can now feel thnt their interests are judiciously protected by honest and capable officers.

City Shares are attracting more attention, and for the most part at higher figures. Spring Valley Water was sold at $68@$61 per share, and is now offered at $63. This Company propose to issue bonds in the sum of $500,000, bearing 10 ₱ cent interest per annum, in order to replace the present flume from Pilarcitos creek to Lake Hondn, hy an iron pipe; to add some twenty miles to ths service pipes in the city, and also to complete other improvements deemed necessary. San Francisco Gas rose to $120, and is now held at $125. Pacific Insurance was sold at $180@$179½ ₱ share. The business of this Company continues profitnhle, owing prohahly to judicious management, and to the nuspicious character of tbe risks taken thus far. Their losses hy the late fire in Virginia City were trifling. Fireman's Fund was dealt in at 123@122 ($12.30 and $12.20 per share), closing at ahout 122 asked. A dividend has been declared, payahle July 2d. California Steam Navigation has heen active, declining from 56 to 49½ ($560 to $495), rallying to 53, and closing at 53 asked.

Crown Point was sold at $1,000@$990, and closes nt ahout the latter figure asked. During the week ending 17th inst., 648 tons of ore were raised. Considernhle first-class ors is being taken from the stope at the hend of middle incline. The new station, lower level, is opened a distance of 30 feet. Receipts of bullion thus far in June exceed those of a like period last montb.

Hale & Norcross advanced to $1,090 and $1,100, and then sold at $1,300. In raising up 100 feet from ths 700 foot level, the ore has improved very much recently, and at 170 feet south of the north line, in stnping from the 7th floor, there is also an improvement, hoth in quality of ore found and in the width of the lods. In drifting east from the 535-foot level, a vein of splendid ore ten feet wide has been disclosed. Some 2,000 tons of ore will he reduced this month, and the yield is likely to exceed $80,000.

Savage declined from $1,050 to $955, rose to $1,000, then sold at $980, closing at $975, s. 30. During the week ending 17th inst., 773 tons of ore were extracted. Tbe superintendent reports a decided improvement in different portions of the mine, with a large increase in the yield and quality of the ore. In sinking from the 6th level the winze continues in excellent ore to a depth of 35 feet, and it is also statsd that recent developments show that a good deal of ore may yet he taken from the latteral deposits on the upper stations. In the Curtis shaft the two southern compartments are almost completed, and good progress is being made in the drift toward tbe ledge.

Gould & Curry rose to $800, and closes at $730 hid. The east drift from ths 2d station now extends some 135 feet, and the south and north branches from the 4th station are in about 40 feet. The ore chambers above still look promising. Receipts of hullion to the 20th instant amounted to $97,000. The Company's mill has been for ten days past running up to only about one-half its full capacity, owing to some repairs to the large engine. Booth's and Bassett's mills will crush some 300 tons this month.

Yellow Jacket rose from $690 to $710, fell to $620, rallied to $635, and sold yesterday at $645@650. There is a large increase in the productiveness of this mine, and for the two weeks ending June 4th and 11th instant, 3,679 tons of ore were sent to different mills, yielding (from partial returns) $109,835. We are also informed thnt the bullion product of the week ending 18th instant exceeded $60,000. These are the most encouraging advices we have had the pleasure to chronicle for a year past from this claim.

Ophir is in less favor, and small sales were made, receding from $347½ to $285, then selling at 295, and closing at ahout $285. From this mine there is nothing new in tbe way of development, the various drifts from the different levels disclosing little or no ore.

Chollar-Potosi has heen dealt in within a range of 205@183, and selling yesterday at 190@188. The Santa Fe Station is said to look rather less favorable, and in cutting through the seam of ore from the Blue Wing, the old works have been broken into without finding ors heyond. In sinking a winze some 40 feet from the 485-foot Potosi level, some low-grade ore has been met with. The 1st station drift (from new shaft) discloses some quartz, and the north and south drifts (from the 2d station) ars in, respectively, 195 and 180 feet. During the week ending 16th instant, 712 tons of ore were sent to custom mills.

Alpha fell from $240 to 207½, and then sold at $206. Belcher fell from $200 to $150, rallied to $160, and closes at $155. Empire Mill and Mining is inactive, hut well held nt $145 per share. We can learn of no new feature in either of these claims.

Imperial fell from 108 to $90, and sold yesterday at $95@103. The receipts of hullion for the first half of this month amounted to $25,000. It is thought that the 7th level drift will soon reach the lode at that depth. Bullion fell from $62½ to $50, and then sold at $55. Overman declined from $29 to $21, rallied to $25, and sold yesterday at $25. Confidence is in a little hetter request, advancing from 26½ per share to $35, and closing at $35. Lady Brynn was dealt in at $3¾@1⅜, closing at $3½. Sierra Nevada sold at $3½@2¾, and Exchequer at $7.

The aggregate sales of Stocks and Legal Tender Notes since Saturday last, amounted to $495,130.

22 shs Chollar-Potosi at 187½@185 per foot.
5 shs Chollar-Potosi at 185@187½ pr ft, s 3
2 shs Yellow Jacket at 685 per foot, s 3.
4 sbs Yellow Jacket at 665@662½ per foot.
1 sh Yellow Jacket at 660 per foot, b 3.
19 sbs Belcher at 165@160 per toot.
1 sh Belcher at 150 per foot, h 10.
1 sh Bolcher at 555 per foot, s 30.
5 shs Savage at 970@950 per foot, s 30.
2 sbs Savage at 980@960 per foot, s 3.
37 shs Confidence at 26@27 per share.
5 shs Confidence at 26½ per share, s 5.
10 shs Confidence at 26 per share, s 10.
15 shs Confidence at 26 per share, s 30.
264 shs Lady Bryan at 1 87½@1½ per share.
6 shs Overman at 22 per ft, s 3.
20 shs Overman at 22½ per share.
5 shs Imperial at 103 per share.
10 shs Imperial at 105 per share, s 5.
3 shs Imperial at 105 per share, s 3.
30 sbs Bullion at 57½@55 per share.
6 shs Bullion at 60 per share.
100 shs Fireman's Fund at 123 per cent.
1 sh Cal Steam Nav Co at 50 per ct, s 3.
$11,200 Legal Tender Notes at 69¼c.

AFTERNOON SESSION.

2 shs Yellow Jacket at 630@640 per ft, b 3.
3 shs Yellow Jacket at 625@630 per ft.
10 shs Yellow Jacket at 615@610 per toot.
4 sbs Yellow Jacket at 617½@605 per toot.
1 sh Yellow Jacket at 617 per ft.
1 sh Yellow Jacket at 616 per foot.
1 sh Chollar-Potosi at 182¼ per foot.
6 sbs Chollar-Potosi at 188 per foot.
12 shs Ophir at 285 per foot, s 30.
12 shs Ophir at 285 per foot, s 10.
24 shs Ophir at 287½ per foot.
12 shs Ophir at 295 per foot, b 30.
48 shs Opbir at 285 per foot.
1 sh Belcher at 160 per foot.
2 shs Belcher at 160 per foot, s 3.
4 shs Belcher at 155 per foot, s 30.
1 sb Belcher at 162½ per foot, b 3.
1 sh Belcher at 169 per foot, b 10.
2 shs Savage at 960@970 per foot.
1 sb Savage at 950 per foot, b 30.
1 sh Savage at 970 per foot.
4 shs Crown Polal at 990 per foot.
4 shs Alpha, G. H., at 225@210 per sbare.
8 sbs Alpha, G. H., at 205 per toot.
27 shs Imperial at 98@100 per share, s 30.
6 sbs Imperial at 100 per sbare, s 20.
10 shs Imperial at 97¼ per share, s 30.
5 shs Imperial at 100 per share, b 30.
1 shs Imperial at 98 per share.
10 shs Imperial at 95 per share, s 30.
5 shs Imperial at 95 per share, s 20.
10 shs Lady Bryan at 1¾ per share.
45 shs Lady Bryan at 1½@1¾ per sbare.
15 shs Overman at 20 per share, s 30.
26 shs Confidence at 26½@27 per share.
4 shs Confidence at 26¾ per share, s 3.
5 shs Confidence at 27¼ per share.
100 shs Fireman's Fund Ins. at 123 per cent.
$5,000 Legal Teader Notes at 69½c.
Amount of sales.....$ 66,129 00

Wednesday, June 20.

3 shs Savage at 970@965 per foot.
25 shs Yellow Jacket at 620@650 per ft.
6 shs Yellow Jacket at 640@665 per ft, h 30.
7 shs Yellow Jacket at 630@635 pr ft, s 30.
2 shs Yellow Jacket at 645 per foot, s 10.
1 sh Yellow Jacket at 650 per foot, b 4.
1 sh Yellow Jacket at 640 per foot, s 20.
5 shs Yellow Jacket at 647½ per foot, b 10.
11 shs Chollar-Potosi at 180@185 per foot.
5 shs Chollar-Potosi at 180 per foot, s 3.
36 shs Opbir at 285@287½ per foot.
24 shs Ophir at 282 per foot.
12 shs Opbir at 280 per foot, s 30.
3 shs Belcher at 160@157½ per foot.
2 shs Hale & Norcross at 1100 per 5oot.
22 shs Imperial at 96@94 per share.
5 shs Imperial at 100 per share, b 30.
5 shs Imperial at 90 per share, s 30.
10 shs Bullion at 63@56 per share.
15 shs Bullion at 50 per share, s 30.
30 shs Overman at 21½@20¼ per share.
15 shs Bullion at 21 per share, s 3.
5 shs Confidence at 29 per ft, b 30
13 shs Lady Bryan at 1 62½@1¾ per sh, s 3.
5 shs Sierra Nevada at 2¾ per share.
50 shs Pacific Insurance at 180@179½ per sh.
6 shs Cal Steam Nav Co at 50¾@52 per ct.
$2,000 National Bank Notes at 70c.
$15,000 Legal Teader Notes at 69@69½c.

AFTERNOON SESSION.

6 shs Yellow Jacket at 635@632½ per ft,
6 sbs Yellow Jacket at 630 per foot.
2 shs Yellow Jacket at 550 per foot, b 30.
1 sh Yellow Jacket at 625 per foot, s 30.
3 shs Yellow Jacket at 635 per foot, b 10.
24 shs Ophir at 285 per ft.
24 shs Ophir at 285 per foot, s 3.
4 shs Belcher at 155@150 per foot.
2 shs Belcher at 150 per foot, b 3.
2 shs Chollar-Potosi at 182 per foot, s 10.
3 shs Chollar-Potosi at 183 per foot.
5 shs Chollar-Potosi at 185 per foot, s 3.
1 shs Chollar-Potosi at 184 per foot, s 10.
3 shs Chollar-Potosi at 184 per foot.
24 shs Chollar-Potosi at 183 per foot.
8 sbs Chollar-Potosi at 184 per foot.
4 shs Chollar-Potosi at 187 per foot, b 3.
4 shs Alpha, G H, at 210 per foot,
12 shs Alpha, G. H. at 205 per foot.
20 shs Imperial at 93 per share.
10 sbs Imperial at 94 per share, b 30.
41 sh Imperial at 92¼ per share.
10 shs Bullion, at 50 per share, s 10.
20 shs Confidence at 27 per share, s 30.
50 shs Lady Bryan at 1¾ per share, b 3.
6 shs Cal Steam Nav Co at 51¾ per ct.
5 shs Cal. Steam Nav Co. at 51 p ct., s 30.
2 shs Cal. Steam Nav. Co. at 52 per ct, s 30
11 shs Cal Steam Nav Co at 52 per cent.
100 shs Firemen's F. Ins. Co., at 122 pr sh.
Amount of sales.....$ 99,093 00

Thursday, June 21.

12 shs Yellow Jacket at 610@635 per ft.
1 sh Yellow Jacket at 605 per toot, s 30.
1 sb Yellow Jacket at 620 per foot, s 10.
1 sh Yellow Jacket at 620 per foot, s 3.
4 shs Alpha, G. H., at 207½ per foot.
16 shs Chollar-Potosi at 185@190 per foot.
2 shs Chollar-Potosi at 190 pr ft, s 3.
5 shs Chollar-Potosi at 184@185 per ft, s 10.
10 shs Belcher at 160@157½ per foot.
84 sbs Ophir at 295 per ft.
48 shs Ophir at 295 per foot, s 10.
1 sh Savage at 990 per foot.
1 sh Savage at 1000 per foot, b 3.
41 shs Imperial at 95@90½ per share.
5 shs Imperial at 94 per share, b 30.
5 sbs Imperial at 91 per share, s 30.
20 shs Imperial at 90@91 per share, s 3.
5 shs Imperial at 90 per share, s 25.
6 shs Imperial at 92 per share, b 10.
35 shs Lady Bryan at 1⅞@2 per share.
12 shs Confidence at 30@34 per share.
5 shs Confidence at 35 per share, b 30.
24 shs Overman at 24@25 per sh.
10 shs Overman at 27 per sh b 30.
6 shs Bullion at 52 per share.
5 shs Bullion at 55 per share, b 10.
$9,000 Legal Tender Notes at 71@73c.
$5,000 U S 7 3-10 June Bonds at 72¾ pr ct.

AFTERNOON SESSION.

2 shs Belcher at 157½ per foot.
2 shs Belcher at 160 per ft.
1 sh Belcher at 152½ per foot.
2 shs Belcher at 165 per foot.
3 shs Belcher at 160 per foot, s 30.
15 shs Chollar-Potosi at 185@187½ per foot.
1 sb Yellow Jacket at 620 per foot, s 3.
3 shs Yellow Jacket at 640@660 pr ft.
1 sh Yellow Jacket at 625 per foot, s 30.
4 shs Crown Point at 1000 per foot, s 30.
95 shs Ophir at 290@300 per foot.
12 shs Opbir at 300 per ft, b 30.
24 shs Ophir at 292½ per foot, s 10.
12 sbs Ophir at 290 per foot, b 5.
1 sh Savage at 980 per foot, s 10.
2 shs Savage at 980 per foot, s 3.
21 shs Confidence at 30@34 per sh.
5 shs Confidence at 32@34 per share, s 3.
10 shs Confidence at 34@35 per share, h 30.
3 shs Confidence at 34 per sh, s 3.
6 shs Confidence at 34 per share, s 10.
26 shs Overman at 24½@25 per sh.
15 shs Imperial at 92 per share, b 2.
5 shs Imperial at 9 per share, s 30.
10 shs Imperial at 94 per share, b 30.
10 shs Imperial at 91 per share, s 10.
1 shs Cal Steam Nav Co at 53 per cent.
$2,400 Legal Tender Notes at 72@72½c.
$5,000 U S 7 3-10 Bonds, June Is. at 72½@73¼c
Amount of sales.....$102,140 00

Friday, June 22.

$ 4,000 U S 7-30's, June issue, at 74 pr ct.
2 shs Cal Steam Nav Co at 53 per ct.
10 shs Spring Valley W W at 61 per sh.
11 shs Chollar-Potosi at 190@195 per foot.
6 shs Chollar-Potosi at 190@188 per ft, s 3.
4 shs Yellow Jacket at 650@642½ pr ft.
2 shs Yellow Jacket at 640 per foot, s 30.
2 shs Hale & Norcross at 1300 per foot.
15 shs Imperial at 95 per share.
6 shs Belcher at 170@162 per foot.
10 shs Overman at 25 per share.
9 shs Confidence at 35@36 per share, b 30.
25 shs Confidence at 32@34 per share, s 30.
15 shs Confidence at 32@35 per share.
3 shs Bullion at 55 per share.
5 shs Bullion at 52½ per share, s 30.
Amount of sales.....$ 24,192 00

MINING SHAREHOLDERS' DIRECTORY,

[Compiled for every Issue, from advertisements in the Mining and Scientific Press and other San Francisco Journals].

Comprising the Names of Companies, District or County of Location; Amount of Assessment; Date of Meeting; Day of Delinquent sale; and Amount and Time of Payment of Dividends.

NAME AND LOCATION.	AM'T OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE
Assurance M. Co	Annual Meeting July 9*		
Arizona Copper Co., Arizona Ter., 40c		July 7	July 21*
Arbitrio, Mexico, $1 50		July 12	Aug 13*
Alpha, Gold Hill, $50		May 25	June 25
Alameda Coal M Co, $2		June 27	July 21
Boston Copper, 50c		June 21	July 18*
Blue Ledge G. & S. M. Co., El Dorado co., $1		July 14	July 30
Cosala S M Co., Sinaloa, Mex., $1		June 30	July 17*
Crocket Con., Esmeralda co, $1		June 23	July 10*
Capitola, Santa Clara co., 10c		June 12	July 2*
Capitola, 10c		June 12	July 2*
Cole, Silver, $1		June 11	July 5
Confidence S M Co, Storey co., Nev., $25		July 10	July 31
Crown Point, dividend, $50 ft		Payable June 15	
Diana O & S M Co., Lander co, Nev., $5		July 20	Aug 10*
Dios Padre, Alamos, Mex., $3		June 5	June 25*
Diamond Cop., Del Norte co., $2		May 26	June 21
Dancy G. & S. M. Co., Lyon co., Nev., 75c		July 14	Aug 6
Eagle, Austin, Nev., $1		June 16	July 6*
Evoca Cons. Cop., Del Norte co., 25c		June 6	July 1*
Franco-Americana S. M. Co., L. C., $1		June 19	July 10
Gold Hill Tunneling Co	Annual Meeting July 21*		
Geo. Washington, Alpine co., $1 00		June 9	June 26*
Great Basin, Humboldt co., Nev., 20c		June 12	July 2*
Gold Hill, Storey co., Nev., $1		June 15	July 1*
Gould & Curry, dividend $50 ft		Payable June	
Humboldt Canal Co	Annual Meeting July 19*		
Hanscom Copper, 30c		June 29	July 19*
Halo & Norcross, dividend $50 ft		Payable June 15	
Imperial S. M. Co	Annual Meeting June 26		
Imperial G. & S. M. Co., dividend $10 sh		Payable May 10	
Keystone M Co., Calaveras co., $10		June 23	July 16
Latrobe T. & M. Co., Storey Co., Nev.	Annual Meeting July 2*		
Leland, Arizona, 25c		June 30	July 6*
Lady of the Lake, Arizona, 25c		June 30	July 16*
Lady Bell, Low Divide, Cal		June 16	July 5*
Lady Bryan, $1		June 30	July 16
Leland, Arizona	Annual Meeting July 2		
Lady of the Lake, Arizona	Annual Meeting July 2		
Mina Rica de las Flores, $1		June 19	July 16*
Nonpareil G. M. Co., Tuolumne co., $1		July 9	July 31*
North American Tin, Durango, Mex., 40c		July 20	July 31*
Nuestra Sra de Guadelupe, Durango, Mex., $1		June 2	Je 30*
Ophir of the Colorado, Arizona, 25c		June 26	July 16*
Obi Colony, Austin, Nev., $3		June 18	July 9*
Ophir S M Co	Meeting June 20		
Patrocinia and Dolores S M Co., M., $1.25		July 21	Aug 16
Rippon, Alpine co., Cal., $1		June 14	June 26*
Refugio M. Co., Mex., $3		July 16	Aug 10
Rogers S. M. Co., Storey Co., Nev., $2		July 12	July 24
Sweet Vengeance G. & S. M. Co., Yuba co., $1		July 23	Aug 15*
Sapphire, Storey co., Nev., $5		June 28	July 17*
Silver Queen, Lander co., Nev., $1		June 23	July 23*
Simpson & Bosselle, Carson Valley, $1		June 9	June 29*
Salambo Copper, Tuolumne co., $1		July 10	July 31
Triunfo G. & S. M. Co., L. C., $1		July 12	July 25
Triunfo G. & S. M. Co., L. C., $3		July 12	July 25
Tellurium G. & S. M. Co., Am. co., $2 50		July 12	Aug 2
United States, Storey co., Nev., 50c		May 26	June 13*
Union Mattole Oil co., Humboldt co., $5		July 16	Aug 20*
Ventana G. & S. M. Co., Mex. $2 75		June 19	July 10
Yankee Blade, $25		June 18	July 9*

*Those marked with an asterisk (*) are advertised in this journal.

San Francisco Stock and Exchange Board.

	Bid.	Asked.
United States 7 3-10ths	$ 74	$ 75
Gov. Legal Tender Notes	72½	73
State Bonds, 7 ₱ cent	85	87
Sac Francisco 10 ₱ cent	..	..
San Francisco Bonds, 1855, 6 ₱ cent	..	..
San Francisco Bonds, 1858, 6 ₱ cent	72	73
Sacramento City Bonds, 6 ₱ cent	18	..
Sacramento County Bonds, 6 ₱ cent	58	60
Marysville Bonds, 10 ₱ cent	75	82
Stockton Bonds, 10 ₱ cent	80	85
Yuba County Bonds, 10 ₱ cent	80	85
Butte County Bonds, 10 ₱ cent	70	80
California Navigation Co	53	54
State Telegraph Stock	33	35
San Francisco Gas Co	120	125
Sacramento Gas Co	..	75
Spring Valley Water Co	61	62
RAILROADS.		
Sacramento Valley Railroad	..	..
Omnibus Railroad	40	50
Central Railroad Co	..	..
North Beach and Mission	46	50
MINING STOCKS.		
Alpha	$206	$210
Bullion, G. H	55	56
Ophir	287	295
Gould & Curry	760	800
Empire M. & M. Co	140	145
Savage	980	1000
Chollar-Potosi	188	190
Hale & Norcross	1200	1300
White & Murphy	....	....
Sierra Nevada	2	3
Yellow Jacket	645	650
Overman	25	26
Crown Point	980	1000
Antelope	....	....
Esmeralda	....	....
Real del Monte	....	....
Buckeye	....	....
Dick Sides	....	....
Imperial	94	95
Ætna	....	....
Cedar Hill Tunnel	....	....
Wide West	....	....
Sierra Buttes Quartz Co	....	....
Central	....	....
California	....	....

San Francisco Market Rates.

WHOLESALE PRICES.

FRIDAY, June 22, 1868.

Flour, extra, ₱ bbl	5 75 @ 6 25
Do Superfine	5 25 @ 5 50
Corn Meal, ₱ 100 lb	@ 3 50
Wheat, ₱ 100 lb	1 65 @ 1 75
Oats, choice, ₱ 100 lb	1 60 @ 1 65
Barley, ₱ 100 lb	80 @ 90
Beans, ₱ 100 lb	3 50 @ 5 50
Potatoes, ₱ 100 lb	60 @ 1 00
Hay, ₱ ton	8 00 @14 00
Live Oak Wood, ₱ cord	8 00 @10 00
Beef, on foot, ₱ lb	6@ 7
Beef, extra dressed, ₱ lb	12½@ 15
Sheep, on foot	1 00 @ 2 00
Hogs, on foot, ₱ lb	8 @ --
Hogs, dressed, ₱ lb	12 @ --
GROCERIES, ETC.	
Sugar, crushed, ₱ lb	-- @ 14
Do China	10 @ 12
Coffee, Costa Rica, ₱ lb	-- @ 22
Do Rio	-- @ 22
Tea, Japan, ₱ lb	90 @ 1 00
Do Green	70 @ 1 00
Hawaiian Rice, ₱ lb	9 @ 10
Chaaa do	7 @ 7½
Coal Oil, ₱ gal	70 @ 75
Candles, ₱ lb	20 @ 22
Ranch Butter, ₱ lb	37½@ 40
Isthmus do	35 @ 50
Cheese, California, ₱ lb	12 @ 16
Eggs, ₱ doz	40 @ 50
Lard, ₱ lb	16 @ 18
Ham and Bacon, ₱ lb	18 @ 20
Shoulders	16 @ 18
Retail Prices.	
Butter, California fresh ₱ lb	45@ 50
do pickled ₱ lb	38@ 40
do Oregon	35@ —
do New York, ₱ lb	50@ —
Cheese, ₱ lb	25@ 40
Honey, ₱ lb	30@ 40
Eggs, ₱ doz	—@ 50
Lard, ₱ lb	22½@ 25
Hams and Bacon, ₱ lb	22½@ 25
Cranberries, ₱ gal	75@ 1 00
Potatoes, old, ₱ lb	1@ —
do New ₱ lb	2@ —
Tomatoes, ₱ lb	20@ 25
Onions, ₱ lb	6@ 8
Apples, No. 1, ₱ lb	3@ 8
Pears, table ₱ lb	8@ 25
Plums, dried, ₱ lb	20@ 22
Peaches, dried, ₱ lb	10@ —
Oranges, ₱ doz	50@ —
Lemons, ₱ doz	75@ —
Chickens, apiece	87½@ 1 12
Soap—Pale & C. O	8@ 10
Castile	14@ 15

City College Laboratories,

Southeast Cor. Stockton and Geary sts.

Practical and Analytical Chemistry and Metallurgy.

THOMAS PRICE,

Professor of Chemistry,

(Formerly of the Normal College, Swansea,)

WILL GIVE PRACTICAL INSTRUCTIONS IN QUALITative and Quantitative Analysis and Assaying. The course qualifies students for the application of Chemistry to METALLURGY, MANUFACTURING ARTS, and MINING PURPOSES.

PHARMACEUTICAL and TECHNICAL CHEMISTRY, such as is required by Medical and Pharmaceutical Students, will be taught to such students as may require it.

Course of General Chemistry.

Evening Lectures will be delivered every Tuesday, at half past seven o'clock, P. M., in the Philosophical Hall of the College, without extra charge to the students in the institution.

On and after the 14th of February, the Laboratories will be open every day, except Sundays, from 8 A. M. to 5 P. M. For further particulars, address

REV. P. V. VEEDER,
Principal of the City College.
6v12tf Or at 406 California Street.

SACRAMENTO SEMINARY.

BOARDING SCHOOL

FOR YOUNG LADIES,

Tenth Street, between F and G.

SACRAMENTO, CAL.

Session commenced January 8, 1866.

MR. AND MRS. HERMON PERRY,
7v12tf **Principals.**

SANTA CLARA COLLEGE, S. J.,

SANTA CLARA, CAL.

Conducted by the Fathers of the Society of Jesus.

The FIFTEENTH ANNUAL SESSION of this College will commence on

Monday, August 28th, 1865.

TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months.....$350

For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.
3v11 REV. A. MASNATA, S. J., President.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LEGISLature of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:

Fire.....$12,973,949
Marine.....484,408

This Company commenced underwriting Marine Risks, August 1, 1865.

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19 1866.

William Alvord,	S. M. Wilson,	G. W. Bell,
Alex. Weill,	M. Cheesemau,	Chas. Mayne,
Abm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Anson G. Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hanssmann,	John O. Earl,
C. Meyer.	L. B. Benchley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. G. Dalston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg.	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct. A. J. RALSTON.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
6v12-3m

International Hotel,

JACKSON STREET,

BETWEEN MONTGOMERY AND KEARNY STS.,

SAN FRANCISCO, CAL.

THIS OLD ESTABLISHED HOUSE IS IN PERFECT order for the accommodation of guests. Persons seeking comfort and economy will find this the best Hotel in the city to stop at. The Beds are new and in good order, and the Rooms well ventilated. The Table will always be supplied with the best in the market.

Prices varying from $1 50 to $2 per day for Board and Room.

FINE BATH HOUSE AND BARBER SHOP ATTACHED TO THE HOUSE.

☞ Teams belonging to the House will be in attendance at all the boats and cars to convey passengers to the House FREE OF CHARGE, and to any part of the city for 50 cents
21v12 F. E. WEYGANT, Proprietor.

INTERNATIONAL HOTEL,

K Street, between Third and Fourth,

SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENOER.

BRANNAN HOUSE,

(Formerly Vernon,)

J street, between Front and Second streets,

SACRAMENTO.

FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m **MRS. J. DUNN, Proprietress.**

WHAT CHEER HOUSE,

SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals	25 cents.
Board, per week	$4 00
Board and Lodging, per day	1 00
Single Rooms	50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m **A. J. SENATZ, Proprietor.**

CALIFORNIA BUILDING AND LOAN SOCIETY

Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING and Loan Society, announce to the public the removal of their business to their

NEW BANKING HOUSE,

California Street, one Door from Sansome.

LOANS.

The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
Second—The Erection of Houses.
Third—The Erection of Manufactories.
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

MONTHLY DEPOSITS.

ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

CURRENT ACCOUNTS.

HALF PER CENT PER MONTH will be allowed on the daily balances to credit of Current Banking Accounts—the same to be ascertained and credited monthly.

REMITTANCES FROM THE COUNTRY
PROMPTLY ACKNOWLEDGED.

INTEREST on all sums commences from the day of deposit.

DEPOSITS of any amount received, from FIVE DOLLARS upwards.

OFFICE HOURS—9 1-2 A.M. to 3 1-2 P M. daily.
SATURDAY EVENINGS from 6 1-2 to 9 o'clock.

THOMAS MOONEY, President.
W. G. WEIR,
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J. W. McCORMICK,
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FOR THE

AMERICAN WATCH FACTORY.

A large assortment of these

Superior Watches,

In Gold and Silver Cases,

Constantly on hand, and sold at Factory prices. Also,

ENGLISH AND SWISS WATCHES,

Imported directly from be Manufacturers.

The American Company are now making

VERY FINE WATCHES FOR LADIES.

☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

Our Circulation.—The Mining and Scientific Press has a large and permanent subscription list, and enjoys a more universal circulation among stockholders and persons directly interested in mining than any other paper on this coast.

A Rare Chance!

A Splendid Business in Alameda County.

FOR SALE AT A GREAT BARGAIN,

100 ACRES OF LAND,

INCLUDING

Landing, Wharf, Three Capacious Warehouses,

Capable of holding 12,000 Tons, which amount of grain was stored and shipped the past year. Connected with said business there is an extensive **Lumber Yard**; sales during last year, two million feet, which sales, and the entire business, can be largely increased.

The above is a rare opportunity for parties desirous of engaging in an active business that will pay a large dividend on the investment. Satisfactory reasons given for selling, and all information desired can be obtained on application by mail, or otherwise, to

G. F. SMITH,
Notary Public and Searcher of Records, Office "Beatty House," San Leandro. 23v12 m

SPLENDID

HOMESTEADS!

IN THE COUNTRY.

Twenty-Two Acre Blocks

Adjoining the beautiful Town of

San Leandro, Harlan's Addition

BUT ONE HOUR'S RIDE FROM SAN FRANCISCO.

Property but a few rods from the Railroad Depot. Good schools, good water, splendid view, free from wind and dust, and the best of soil.

☞ **Title—U. S. Patent.** ☜

A rare chance to buy a beautiful Homestead for your wife and little ones, at a low figure.

—ALSO—

Improved Homesteads and Farms of 20, 50 or 100 Acres,

In Alameda county. The most desirable locations in the State. Apply to or address

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Office, "Healy House," (directly opposite the Court House,)
San Leandro. 19v12-3m

Occidental Homestead ASSOCIATION,

Office, 305 Montgomery street, San Francisco.

Capital Stock : : : : : : $33,600

102 Shares, $33 Each.

This Association was formed to enable its members to obtain desirable homestead lots in this city, at a cheap and easy rate, paying for the same by regular monthly installments. For this purpose they have purchased blocks 499, 500, and 501 in the Western Addition to this city, bounded by Devisadero, Pine, Broderick and Clay streets. Subscribers will pay an initiation fee of $5 on each share taken, to form a fund for defraying current expenses, and $11 per month for thirty months, commencing in April, 1866. The property is within three blocks of the Turk Street Railroad, is nearly all on the grade, and is most desirably located for homestead purposes. It is directly east from the lands of the California Homestead Association. The property has been purchased on very reasonable terms, and offers a rare opportunity for investment. A number of fine houses are in process of erection, and streets are being graded near this property, which will greatly increase its value.

When twelve monthly payments have been made, the property will be divided among the members in the usual manner, and each shareholder will receive a contract for a deed to the lot or lots to which he may be entitled, and have the privilege of taking immediate possession of the same. The lots average 27 feet in front by 120 feet in depth. The whole amount due upon any lot may be paid at any time, and discount at the rate of 1½ per cent. per month will be deducted therefrom. Persons wishing to visit the lands of this Association will take the Turk street cars to Devisadero street, and thence go northerly along Devisadero to Pine street.

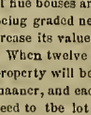
$20,000 of the capital stock is taken, and the books are open for subscription to the balance, at the office of the Secretary, where the Official Map of the Association can be seen, and all particulars obtained.

The Title to this property is perfect.

J. S. LUTY, Secretary.

Office 305 Montgomery street, corner of Pine, Rooms 2 and 6. 20v12-tf

Eyes! Eyes!! Eyes!!!



DR. HENLY, OCULIST AND AURIST, HAS received from Scotland one of the most miraculous remedies for the benefit of the human eye ever before discovered. It is unparalleled in its effects upon the diseases incident to this organ. It gives wonderful power to the optic nerve, and removes all the granulations from the lids, and all mucous film from the sclerotic coat without the use of instruments. In fact, it works like a charm on the Eye, without giving any pain. You feel the effect of the medicine in different parts of the head. It drives the disease back into the system, which is better able to stand it than this tender organ.

Why will you suffer when you can be cured in a few days. Persons who have been blind for ten years have been restored to their sight in a short time by the use of this medicine. I will treat any person's eyes in the State, and if I do not give them relief in a short time, I will not charge them anything. Office, No. 751 CLAY STREET, opposite the Plaza, San Francisco. 22-v12

BACK VOLUMES.

Back files of the Mining and Scientific Press, from January 1st, 1864, to the present time, will be furnished at $3 per volume of six months; bound in cloth, $5

Mining Summary.

CALIFORNIA.

Alpine County—

The *Miner* of June 16th has these items: The Morning Star company yesterday struck ore in their drift similar in character to that in the tunnel, and feel confident they are nearing the other chimney for which the drift was started. They will probably put up reduction works soon....Work on the Eastern Slope tunnel is now going on uninterruptedly, and the superintendent says will be continued until that monster ledge is fully proven.

Butte County—

The *Record* of June 16th says: The work of erecting a mill on the Sherman ledge is now in progress, and will be pushed to completion as rapidly as possible. The work is being prosecuted under the superintendence of Mr. Sparks, formerly of the Banner ledge. This ledge is situated some two and a half or three miles from Oroville, on the road to La Porte, and near the line of the Feather River and Ouhir Water company's ditch, which will furnish the working power of the mill.

Calaveras County—

The San Andreas *Register* says: Mr. Irvine is pushing on the work in the El Dorado quartz mine, near El Dorado camp, and taking out a large amount of rock for crushing as soon as he shall have erected his mill. He is now down with the incline shaft about 150 feet. The vein is at that depth over six feet wide, well defined, solid quartz. The rock which he is now taking out prospects well, but it is not as rich as some that has been taken out.... We saw one day last week some of the richest specimens of quartz taken from the Altaville quartz claim, located near the town of that name, than has ever been found in this county.

The *Courier* of June 9th, says: The Buckfield Copper Mining Company have struck a vein of copper six inches wide, producing 20 per cent. ore.

Same paper of 16th inst. has these items: McGlynn's quartz mill, near San Andreas, has been engaged in crushing 500 tons of tailings, which have yielded satisfactorily. The mill will soon commence on quartz from Mr. McGlynn's lead....B. K. Thorn & Co. are developing a promising lead in Rich Gulch, from which they have recently taken some very rich quartz....Austin & Hathaway are the owners of a lead at Jenny Lind about 30 feet in width, which yields from $10 to $40 to the ton. We understand that this claim is about to be sold to parties in San Francisco, for the sum of $75,000....A new quartz lead has recently been discovered near Angels, in this county, the rock from which is said to yield nearly $1,000 to the ton....100 tons of rock from the claim of Dr. Lampher and others, near Mokelumne Hill, yielded $1,500....The Rawhide claim is said to be paying handsomely. The first rock crushed in the new mill yielded $40 to the ton....The Alban ranch mill is again in operation. The rock being crushed is from the Alban Ranch mine....The Willow Creek lead, near San Andreas, is said to be several feet wide, and very rich.

A correspondent of the *Chronicle*, writing from Valleeito, June 3d, says: "A very lively interest seems to be taken here in prospecting quartz, a branch of mining which will, before long, be the main feature, particularly in the southern portion of Calaveras county. Look at Angels; look at Carson Hill; look at Robinson's Ferry; at Vallecito, and many other localities, where quartz has proven rich. All that is now required to demonstrate a certain fact is the employment of a little capital, which will be done sooner or later."

El Dorado County—

A gentleman from Placerville informs us that a new vein of quartz has been struck in the Humboldt lode, near that city, which assays $2,000 per ton. It is not from a pocket either, as several tons of rock, exactly similar in appearance to that assayed, have been taken from the drift, and there is plenty more of the same sort left.—*Exchange.*

Fresno County—

The steamer Fresno on Friday, brought, among other things from Fresno City, 4,500 pounds of copper.

Humboldt County—

The *Times* of June 2d has these items: In the Bear River district two companies are actively operating in sinking wells on their lands, the Fortuna and Oil Creek companies. The former have attained a depth of four hundred feet, and the latter two hundred feet. The prospects in both of these wells are encouraging....In the Lower Mattole district a large proportion of the companies are prosecuting their work with energy. The old or first well of the Union, which is one hundred and fifty feet deep, still yields about half a barrel of oil a day, without any signs of diminution or exhaustion. Well No. 2, one hundred and ninety-six feet deep, affords great encouragement, and well No. 3, on which work is now being prosecuted, is down one hundred and thirty feet, and is already producing considerable oil.

The North Fork company's well is down two hundred and seventy feet, affording the most encouraging prospects, and yielding considerable oil....The Erwin Davis well is now down over eight hundred and twenty-five feet, and now gives off the odor of petroleum, and a strong volume of gas....The Jeffrey well is four hundred and fifty feet deep.

At McNutt's Gulch, the Allen & Sutter company have renewed operations. The earth and rock excavated from the shaft they are now sinking is completely saturated with oil. ....In the upper Mattole Valley, the Mendocino company are about commencing work; the Fonner Farm well is down eighty feet; the Upper Mattole well is three hundred feet deep, and the Yosemite two hundred and forty-seven feet. This last named well will amply pay any one to visit it. The noise made by the gas as it escapes from the well, can be heard yards away.

Nevada County—

From the *Gazette* we clip the following items: We learn that a quartz ledge of astonishing richness was discovered and located last Friday, by W. J. Worley, of Columbia Hill. The ledge is situated on Grizzly Ridge. The vein is about twenty inches in thickness, has been traced for nearly a mile. Many extensions have been taken up. Specimens in the possession of the discoverer, which were broken from the croppings, are literally bespangled with gold; in fact, some of them contain more gold than quartz. Worley and his partners have located sixteen hundred feet, and call their claim the "Big Slide"....We learn that the proprietors of the Banner ledge refused to accede to the demand of the workmen for higher wages, and the work in the mine has been temporarily stopped....The completion of the Willow Valley works was celebrated on the 16th inst. A generous collation was furnished by the proprietors, and all had a good time generally....The mines of Nevada county are attracting much attention abroad. Five or six quartz operators, from Virginia City, arrived in town on Wednesday, and are now examining the mines with the view of locating and erecting machinery....We learn from John Thorp, the discoverer of the Fox copper ledge, that the work upon the original location is progressing as rapidly as the nature of the ground will admit. The shaft is now sunk to a depth of over twenty-five feet and the ore continues to improve....The work on the Hermitage ledge, west of the Fox, has been suspended for the present, but some of the companies are making preparations to resume operations.

Within the past few weeks some of the most extensive mining enterprises ever projected in the State have been inaugurated in this county. For a month or more S. N. Stranham has been engaged in tracing out the great Blue Lead, and has come to the conclusion that the main channel in this county runs under Chalk Bluff ridge. Accordingly, he has made a location extending a distance of nine miles. He is associated with some San Francisco capitalists. The company is known as the "Chalk Bluff Mountain Blue Gravel Company." Another company have made a location of ten miles, under the name of the "Ancient River Channel Blue Gravel Mining Company." The claim is 52,800 feet in length, and 1,056 names were used in making the location. The lead has been traced the entire distance of the two locations. As soon as the necessary arrangements can be made, machinery will be put up at the lower end of the claims, at Chalk Bluff, also at the dividing line between the two claims, and shafts or inclines sunk to the bed rock.

The *National* of the 16th instant says: We were shown a prospect, this morning, taken from four ounces of rock, from the Minnesota ledge, located opposite Snow Point. From four ounces a dollar and a half in pure gold was taken.

The *Union* of same date has these items: We saw some rock yesterday from the Lowery, Stockton lead, taken from a depth of sixty feet below the surface. The claim is located near the Globe Ranch, on the Auburn road. The rock was very rich in gold and sulphurets, the gold largely predominating. The ledge varies from six to sixteen inches in thickness. The owners intend putting up a 5-stamp battery this summer....The Dromedary company have again gone to work in earnest, and are engaged in sinking on the ledge. Yesterday we saw some rock which was taken out on Monday, and which shows large deposits of free gold, besides being very rich in sulphurets.

The *Transcript* says: The Eureka mine at Grass Valley is turning out "cords" of gold. At the last clean-up, after a run of seven days, the company took out $15,000. The run before this gave them $14,800. The Eureka was formerly known as the Emperor's lead....One-half of the German Bar Quartz ledge, situated just above Moore's Flat, has been sold to San Francisco parties for the sum of $20,000.... A nugget of gold, valued at $900, was recently taken out at Moore's Flat....The engine for the hoisting works of the Pennsylvania company was received on Monday, and they expect the boiler up in a few days.

EXCELSIOR.—The *Gazette* of June 19th, says J. B. Jeffrey, Marshal elect of the town of Meadow Lake, arrived at Nevada on Sunday evening. From him we learn that times are quite lively in the new district, and the town is improving rapidly, although lumber and other building materials are high and difficult to be procured. People are rushing into the new district from all quarters, a large proportion coming from the other side of the mountains, and the work of opening and prospecting quartz ledges has commenced. In the streets of the town the snow has entirely disappeared, but outside, it is still lying to a considerable depth, though as might be expected, the late warm weather has been carrying it off rapidly. The owners of ledges have the most implicit confidence in the richness of their claims, and much will be done this Summer toward opening and developing them. Sales of mining claims are frequently made at high rates, and property in the town is rapidly appreciating in value.

The Meadow Lake *Sun* says of the California company's ledges: The California ledge will average 16 feet in width throughout the entire length of 1,700 feet. The Knickerbocker will average about seven feet in width. The Indian Boy is about eight feet wide. The Indian Queen will average about the same. Free gold was found in the croppings in all of them. An assay was made, one from each ledge, in the fall of 1864. The Knickerbocker assayed $157 in gold, and $25 in silver—in all, $182 to the ton. The California went $155, all gold. The Indian Boy assayed $132, all gold. The Indian Queen went $137, all gold. No work, except to comply with the law, has been done upon any except the California and Knickerbocker.

Placer County—

The *Stars and Stripes* of June 13th, has the following: We mentioned a fortnight ago that some very rich float rock had been found on Anthony Flat, near Newcastle, and that parties were looking for the ledge. They found it on Saturday last, and located a number of claims under the name of the "Pepper and Salt Company"—the name being derived from the appearance of the rock. We should think, from what prospects we have seen obtained from small pieces of the rock, that it would pay from $2,000 to $5,000 per ton in free gold. It contains no sulphurets, so far as ascertained. ....We visited the Taylor mine a few days since. This ledge on top is from one to two feet thick, and crops out boldly. The incline which has been sunk from it to a depth of sixty-five feet. The rock shows but little free gold, but "pans out" well, all the way down.

The Dutch Flat *Enquirer* says: E. L. Gaylord, an attorney of this place, exhibited to us a few days since, a specimen from a claim recently discovered about thirteen miles above here, on the line of the Pacific Railroad, which is evidently of exceeding richness in silver, besides showing a handsome sprinkling of free gold.

A letter from Soda Spring Valley, June 10th, to the Placer *Herald*, says: Several parties on prospecting tours, visited Soda Spring Valley within the past few days, from Meadow, Lake Mountain City and Virginia City, pronouncing the prospects far better than at Meadow Lake or the above mentioned mining districts. The most prominent ledges are the Granite, the American, Pittsburg and the Cataract. The Silver Dip and Golden Dip Deerlick ledges, discovered a few days since, are very rich in appearance. Several companies are busy now doing necessary work, prospecting, etc. Several tons of rock is being taken to Summit City or Meadow Lake by parties, intended to be crushed. * * * Soda Spring Valley is located at the head of the North Fork of the American river, six miles south of the Dutch Flat wagon road, ten miles west of Lake Tahoe, and fifteen miles southeasterly from Meadow Lake.

Plumas County—

A Nelson Point correspondent of the Marysville *Appeal*, June 11th, says: River mining is being prepared for. White & Richards intend to flume and work what is known as Deep Hole, under Feather river bridge. It has thirty or forty feet of deep water, and has never been worked, except by the plunge of the boiling flood. It is a whirlpool at times of high water. * * * The Celestials are at work along the river above here like so many beavers. I think there will not be more than two or three white companies try the river this season. All others will be Chinese.

Hydraulic Mining.—The hydraulic mining will soon come to a close for this season, as the water is falling very fast. Some of the boys have commenced to clean up, which will take them about a month.

Shasta County—

The *Courier* of 16th inst., has these items: The Bunker Hill company have struck a good prospect again, but in rock more solid than formerly, so as to necessitate crushing. A pan and a half, crushed in a mortar last week, paid one and a half ounces. They will haul a few tons to the Spring Creek mill to be crushed....Hall & Co.'s new quartz discovery near Hogtown, is receiving considerable attention. Specimens from the lode are showing better and better....Reports from the Potosi are very flattering. Every piece of rock now shows free gold....Kelly is putting up a small mill on the Jollie lode. Will be ready to run in a couple of weeks.

The Sacramento *Bee* of June 18th, says: Captain Robert McCall arrived in town last night on the Red Bluff boat, bringing with him a ton of specimen rocks, taken from a new mining district, recently located about forty miles from Shasta.

The district referred to is Piety Hill. Should the assay warrant it, an English company stands ready to invest. So says the Red Bluff *Independent.*

Sierra County—

The *Messenger* of 16th inst., has the following items: The Pioneer company at Sebastopol have resumed work in their tunnel. This tunnel was commenced in 1854. They have penetrated Bunker Hill a distance of 1,300 feet, and nearly all blasting rock. A few months ago they raised a shaft and found a good prospect, with the rock soft and pitching into the hill....A new ledge has been discovered on Wolf creek, below American Hill, from which some of the richest rock ever found in the State has been taken in large quantities. The matter seems to have been kept quiet lately, but there is no question that the discovery is a valuable one....The Sierra company, at Gold Cañon, are now taking out rich dirt. They have got their tunnel repaired, and are working on the old course and taking out about $2,000 per week with twenty-five men. ....Rice & Wright having purchased the mining grounds of the Fremont, Morning Star, Know Nothing, Ohio and Nary Red companies, have commenced work at the old incline of the Fremont at Wet Ravine, and getting along finely with a prospect of getting into pay about August or September.

Siskiyou County—

In this county Lash & Co. have discovered a very rich lead of gold-bearing quartz on the north fork of Humbug. Gold, says the *Journal*, can be seen in most of the rock, which will average $600 to the ton in gold, and about $30 in silver, without the least particle of lead.

Trinity County—

The *Journal* says: Trinity Center presents a rather lively appearance at present. Mining operations are fairly under way, with a certain prospect of plenty of water the entire season. If San Francisco capitalists would build the proposed ditch from Coffee creek, that would be one of the most flourishing mining sections in the county, as it already is in an agricultural point of view....The flume of Selander & Anderson, on Fillibuster Flat, was robbed of about $600 on Friday night of last week. Several sacks of the dirt cleaned from the flume were found by Mr. Anderson in an old tunnel at the head of the Flat, from which about $110 was washed.

Tulare County—

The *Times* of June 15th, says: From a gentleman just returned from Havilah, we learn that the mining interests throughout the Clear Creek region never looked more promising. New discoveries are being made—one about twelve miles southeast of Walker's Basin, being considered of great value. The Joe Walker lode, in the Basin, is proving immensely rich. The company have a shaft down about eighty feet, and is extremely favorable in appearances. It is pronounced by some of the parties to be equal to the "Long Tom."....We learn that the new and valuable quartz mill belonging to Mr. James, Carter, on White river, near the town of the same name, is completed, or nearly so, and will commence running in a few days. There is some three hundred tons of rock out and ready for the mill as soon as it is started.

Tuolumne County—

From the *Courier* of 16th inst., we clip these items: Last week the Mount Vernon company in Sugar Pine, commenced crushing their rock at the Monitor mill, which they have leased. Twelve tons were worked as a test, and yielded about $108 per ton....During the past week another golden stream has flowed from Bald Mountain. Some miners took out about fifty pounds of gold from a claim that had been given up in disgust, some years ago. There is no hill in the State that has yielded so much treasure, though comparatively little work has been done on it.

Yuba County—

The Marysville *Appeal* says: One hundred and twenty-five shares of Dan. Webster stock, Brown's Valley, sold at $2.50 per share. There are very few sellers, and from $5 to $10 per share is now asked....Twenty-five shares in Templar No. 2, Indiana Ranch, changed hands yesterday at $5 per share....An assay of sulphurets, from Templar No. 2 rock, was made yesterday by Knight & Co., assayers, with the

following results: "We hereby certify that the samples of sulphurets assayed by us for you this day (June 16th) contained oz. 67.06 gold. $1,386.13 to the tan af 2,000 pounds. No silver or other metals."....Tho new boilers for the Jefferson mill, of Brown's Valley, weigh 12,000 paunds.

NEVADA.

Washoe—

The Gold Hill *News* of 10th inst., says: As we predicted last week, in our notice of the Yellow Jacket, it has gone on, increasing the supply af pay rock brought to the surface, till the quantity averages 300 tons daily, and employment in consequencec is given to 12 mills. ....Gold Hill mines are giving out—morc bullion than all the bulance of the mining districts in the State summed together.

Como, once a prosperaus town, is now almost entirely deserted, there being hut une house occupied, the National Hotel, a costly structure, which now shelters a few woodchoppers, who pay ten dollars per month rent.

The Gould & Curry mill crushed, for the month of May, 3,700 tons of rock, which worked within 11 per cent. of assay.

The *Enterprise* gathers the following items from the Surveyor of Churchill county: The Silver Wave company, in La Plata district, are running a tunnel which they expect to be completed by tho first of July, striking their ledge ut the depth of nearly 300 feet....The Satellite company huve completed their tunnel and have developed a very luir lonking ledge. There are also two New York companies owning and developing mines in the district, with excellent prospects. There are two fine quartz mills in the district, but they are not running at present....In Clan Alpine district there are muny very fine ledges, hut the only one tharoughly developed is the McGregor, a good sized ledge, into which an incline has been sunk 180 feet deep. The mill is now on good pay rock....In Silver Hill District there are some very good looking ledges, but they do not appear to be much worked at present, there being but few people thereabout. The United States Series are the only ledges being worked.

Reese River.—

The *Reveille* says: "At the present time one cannot contemplate the future of Austin and the mining interests of Reese River hut with the brightest anticipations. Never has prospecting been carried on so vigorously nor with greater success. The discaveries of surprisingly rich ledges and in great numbers in distant districts, und the developments in our own neighborhood, surpass unything of the kind in their grand promise of wealth that have ever been recorded."

From the samc we clip the following itcms: The Philadelphia district, a newly organized one, is attracting great attention. The ledges already located are the Transylvania, Nos. 1, 2 and 3. These locations show out-croppings lor more than three hundred yards of a well-defined ledge of from four to fifteen feet in width, the mineral of which by actual assay has given from $200 to $2,000 per ton. In every place where the ledge has been broken in upon, a similar quality of ore was found. These mines are eighty-five miles southeast from Austin. ....Next day's issue of same paper says the excitement was increasing....While at the assay office of Boalt & Stetefeldt to-day, we were shown a beautiful button of almost chemically pure silver, three-quarters of an inch in diameter, yielded by one ounce of ore, obtained from a vein in the viciaity of Yankee Blade. The yield was nt the rate of $11,857.37 of silver per ton....The Keystone mill was put in motion yesterday after beiag closed for several weeks....Col. David E. Buel, proprietor of the Eureka mill at Big Creek, is having it dismantled for immediate removal to the Philadelphia district, where he owns large interests in several apparently rich veins....Eighteen assays of the first and second-class ores obtained from seven differeat ledges, in White Pine district, gave un average yield of $33 of silver per ton. The best yield was obtaiaed from ore of the Mohawk ledge....The excitement of the week appears to he in the rich strike recently made in the Autocrat, ia Ophir Canyon, Twiu River District. An assay of this ore was made by Thomas Cahill of this place, and gave the handsome result of $274.87.

The Nye county *News* has these items: The Knickerhocker mill is nearly ready for operatiou....We understand that the Pleaides boys have out a large pile of fine ore, as also the Franklin, Brown, Robert Burns, Storm King, Mountain Brow, Indianapolis, Victor and others. We were shown some splendid ore from the Victor, whieh elaim recently "struek it rieh," and are now taking aut as fine ore as can be found in the distriet....The mill in San Aatoaio distriet is soon to be started again.

Esmeralda—

The *Union* of June 9th, says: We have been informed that 2,200 pounds of rock from the Crockett mine have been worked by a gentleman from San Francisco, and yielded over $800 per ton. He also tried 400 pounds of the rock which they are throwing away, and got a return af $80 per ton....The hoarse bellowing of the steum whistle af the great Del Monte mill greets our ears regularly now three times u day, and its roaring is sweeter to the ears of aur miners than the most exquisite music. We are informed that the oro crushed ut this mill last week yielded very handsomely. Two other mills are kept running almost constantly, crushing custom rock in small parcels, the yield generally being satisfactory.

Fifty or one hundred men could find employment ut $4 per day in this and the adjoining districts....Work in the shaft of the Philadelphia company is progressing with commendable alacrity.

Humboldt—

The *Register* of 9th inst. has these items: The Seminole tunnel is now in 150 feet; running in softer rock, now, and still improving—making two feet u day, and prospects that the rock will soon be found to yield without blasting....The Pioneer mill is kept running night and day. Superintendent Fall is doing everything possible to keep tho mill supplied with outside rock, while opening the company's ledges....The American Basin company has its tunnel now in to a distance of over 600 feet. It is working three shifts of men, now, and is running through scattered quartz and small seams of oro almost every day. Negus, superintendent, is on the lookout for the ledge right at hand.

Pahranagat.—

The *Reveille* gives notes furnished by Gov. Blasdel's party:

Although the district has been discovered upwards of two years, there is hut a solitary instance where an excavatiou has been made in a reul or supposed ledge eighteen iaches below the surface. There are several remarkable locations, autcropping boldly for the length ol a hundred feet, which development may determine to he true ledges. These ledges are estimated by their outcropping to be from five to twenty feet thick, and muny of them exhibit fine mineral. A singular vein, characterized as a mother vein, jutting above the surface bold and grand like a tower, is estimated to be fifteen or twenty feet thick, and apparently capahle of yielding an abundant supply of a low grade of ore. It throws off at regular intervals a number of lateral spurs, varying from five to three feet in thickness, all containing seemingly upon the surface mineral of the richest character. It is douhtful whether they are spurs or transverse veins, as their mineral is entirely different from that of the mother vein; and no development has yet been undertaken to remove the doubt....By the new route the mines are only 150 miles from San Antonio. The latter place is forty-five miles from Austin....We learn from Henry Schaefer, who has just arrived from Pahranagat, via Egan Cañon, that considerable activity prevails in the district. Mr. Schaefer left there five days after the departure of Governor Blaisdel and party. The two smelting furnaces were eompletely finished and ready for use. They are situated at a point in the mines known as Logan's Springs. Captain Dahlgren is also constructing u large furnace at the same point. According to Mr. Schaefer, there are six to eight companies engaged there, which are employing from 100 to 150 men, working upon mines, smelting works, and as teamsters. Mr. Schaefer predicts that Pahranagat will ere long be generally regarded as a valuable acquisition to the already large silver domain of Nevada....From Pahranagat to Callville, the head of Navigation on the Colorado river, it is 175 miles. A wagon road would be 200 miles.

The Tulare *Times* of June 15th, says: Mr. Thomas McFarlane, who returned a few days since from the Pahranagat mining district, estimates the distance, from Kern river to the mines, as the road will run, at 330 miles. For the greater portion of the distance grass and water are abundant and good, and no serious obstacles to be overcome. There is a good natural road nearly the whole way. From Pahranagat to Salt Lake City—450 miles—there is an opened and traveled road.

IDAHO.

The *Avalanche* of June 2d, has these items; The Oro Fiao is working about seventy men. The superintendent showed us around the mine the other day. They are taking out and sacking the richest average lot of ore we ever beheld. Every piece is covered aad filled throughout with free gold. Expect to soon have a crushing of thirty tons of are, which we truly believe will yield near $3,000 to the ton. The mine steadily supplies three mills with rock....The Surplus Oro Fino is taking out rich are night and day. There is fully three hundred tons of sorted ore at the dump. The shaft is down eighty feet, hut the drifts are being run at thirty-five feet. Water is troublesome. Preparations are beiug made to erect a platform and *chute*....The Cosmos discovery shaft is dowa one huadred aad forty-five feet and on the extension eighty feet. The ledge will average five feet wide to the present depth. The company has near 600 tons of pay rock ready to mill....The Lincola compaay have taken advantage af the plentiful supply of water in their ditch and, at a very small expense, ground sluiced aff their tailing-yard to the bed rock....The shaft on the Minnesota ledge has been straightened and timbered up in the most substantial style....Messrs. Reuter and Johnson discavered a ledge on the 23d ult., which they christened the Saxony. It lies about four hundred feet east of and parallel with the Silver Legion. The discoverers are working on it and on Wednesday it showed two feet of solid quartz, with several small seams....Jack Wheeler and H. Sweeny, of Flint district, started for Denver, Colorado, yesterday morning. Their object is to purchase one of the many idle mills in that Territory, bring it overland and set it up in Flint the present year....Messrs. More & Fogus cleaned up, last Saturday, $17,000 in bullion. ....The party which went to prospect the Red Mountain region have returned. Are favorably impressed with the country. Faund mountains of quartz containing mineral, alsa large tracts of country containing plucer gold.

Correspondent of same paper at Oro, Flint district, May 29th, says there are twenty or more ledges in that new district that are each capable of keeping u hundred stamps supplied with good paying rock. The *Avalanche* of May 26th, (which we failed to receive—EDS. PRESS) says of these mines: These ledges all show from three to seven feet of solid quartz and a number of them solid casings. The rock is full of streaks and spots of black sulphurets of silver—the native metal being visible in some. Ten tons of average rock taken fram within ten feet of the surface, and imperfectly worked, gave per toa a fraction over $171. Ore of most other ledges looks equally well, and the many small bricks obtuiaed by hand process, places it beyond douht.

Coal has been found withiu eight miles of Ruby City, Idaho.

The *Alta's* correspondent at Boise City, June 1st, says of the South Boise mines: The owners of the lead Robert Burns have struck the vein, and fiad it over twelve feet thick, and the rock prospecting as richly as the famed Atlanta. The latter lode is reported at from twelve to sixty feet wide; hut fram observation I think sixteen feet about the averoge thickness. * * * On Red Warrior creek, one und u half miles southwest from Rocky Bar, the Red Warrior aud Bear Creek Tunnel Company, of which Rasey Biven, Esq., is chief executive, have run 350 feet inta the mountain, cutting through various small strata of quartz, in all of which they found gold.

Four hundred Chinnman have come into Idaho City, during the spring.

A letter to the Mariposa *Gazette* from an acquaintance ia Idaho City, says: "The mining season here has opened finely. The White Brothers made a clean up of $26,273 in eight days, with thirty-eight hands and 400 inches of water. They have taken out over $60,000 already, aod will probably take out $100,000 more this season. Moore & Co. have done well, and Moore has sold the Owyhee property conditionally to an English company for $1,550,000, the mine to be paid for if the agent of the company reports favorably upon seeing it. Sam. Kelly and Green White have sold 800 feet of the eastern extension of the *Illinois* to a New York compauy for $40,000, ta be paid for in the fall. Elevea tons crushed from the vein yielded $562."

MONTANA.

The *Post* of June 2d has these items: In Wisconsin Gulch a party of four men took out 116 ounces in one week....The hydraulic claims are paying largely, as far as they have yet gone. After this week we shall be able to give a more detailed statement of them. There are sixteen claims at work and in preparation for washing. Blake's claim yielded $1,260 to four days run on old drifted ground. The Missouri Company, in four days run never touched bed-rock, but cleaned up $700, hunkable dust....The foundation for the Foster mill, on the Mesler lode, is down to the bedrock, and the timbers are all out. The lode is opened both ways from the discovery, and looks spleadid. It is six feet wide on the average, and as rieh in free gold as anything yet struck up there. In sixty days, we hope to hear the whistle of the splendid mill aow, we believe, at Benton....Deep Creek is immensely rieh. A couple of young men, with a rocker, took out ninety-six ounees in a week....The aceounts from Bear Gulch are eonflieting, up to date; the pay seems to he chiefly helow the mouth of Deep Creek....A little dry gulch, rejoiciag in the name of "Bilk," is very rieh; they are melting snow and taking out a great deal of money with rockers.

Correspondence of same from Bannack, says: The Baanack Ditch Company have every prospect of doiug well, whea they get fairly to work. Last week, on Nuggot Hill, they took out twelve dollurs and upwards to the haad, and their ground was improviag. We expect larger results from other placers whieh they are prepariug to work.....Some of the gentlemen belonging to the McLean Silver Mining Company have arr.ved. Wark is progressing finely on the Eaton lode, and the recent developments ure of the most substantial kind....Mr. Esler's discovery—the Legal Tender—is unsurpassed by anything in the Territory; the mean of assays performed by different scientific individuals varying fram $507.87 to $865.42 per ton. Tho company have alsa 8.291 leet of gold lodes in Bald Mountain district. Smelting furnaces will be erected an the Legal Tender mine, in early spriag....The steamboat St. Johns, forty-eight days from St. Louis ta Fort Benton, passed sixteen hours, and reports thirty steamers, with an average of from twenty-five to thirty passengers on their way.

A letter from Blackfoot ta the Hombaldt *Register*, says that at present there ure twenty to ane morc mea there than needed.

The *Flag* gives an extract fram n privnte letter dated Ruby City, May 27th. We quote:

Montana may be a good placa for some, but it is a cold inhospitable region, aad in my opinion, from all I can learn (and I have good chances to knaw), it is not generally rich, but spotted, bully overrun, and all the good claims are monopolized. I have seen men every few days from there, lor the past year. They generally condemn it, as not hulf as good as California is now.

COLORADO.

From the *Journal* of May 29th, we clip the following: Col. Tannatt has cammenced preparations lor a Keith furnace in the Manhattan mill. His batteries have been taken down and removed, also his Dodge pans aad Eatoa amalgamntars. Excavations are beiug mnde inside the ald mill for a Keith furnace 18 by 11, and more than 25 feet high, with upright stack fifty-six feet in hight. He has an Ingersoll Crusher on the way, which he intends to use instead of the Blake machine used by Keith. The new mill contains room far twelve shaking tables....Mr. DuBois has purchased the large new boiler of the Kip & Buel compaay, aad will immediately move it down. He hopes to be ready to run in six or eight weeks....Mr. Ford has put up a pair of collum separators, aad is preparing to huild a regular reverberatary smeltiag furnace....Samuel P. Lathrop & Co., owning the extensioa west of the Harsh, which they call Star, are beginuing to open it in the expectation of selling the ore to the custom smelting works and Keith Furnnces....The Downieville Mining eompany, in Clear Creek county, has recently started up. It has a 12-stamp mill, run by water-power. .....The Brastow Gold Miaing company's claim, on the Bobtail lode, is turaing out some very rich ore, as also the claim of Mr. Sensenderfer....The Periga compnny are endeavoring to raise capital wherewith ta resume work on their mines....We predict that before the summer is half gone there will be more doiag in mining thaa before since 1863....There is now quite a movement toward the country in which head Bear, White, and Uiatah rivers, among old prospectors. A compaay was in there last fall aad found such encouraging prospects as to iaduce it to go back prepared to mine. It went from Empire on Saturday. Seveateen aien started from Eureka Gulch yesterday. Others are preparing to go.

UTAH.

The Salt Lake *Vedette* of June 7th, has the following in regard to the Rush Valley silver mines: The miners—the more energetic among them and those who cna command the requisite means—are husily engaged ia opeaing their leads, or, in erecting works ta reduce the ores. The Argenti company has suspended operations temporarily, on account of a change in directors. * * * The Monheim company has a furnace completed except liniug with fire-proof material. It will soon be in readiness for smelting. Mr. Finnerty, whose miae we examined, has a fine tunnel run in on his veiu about one hundred feet, the depth from the surface at that point being ia the vicinity of seventy feet. He has a lode over six feet in width, from which he is taking out ore at the rate of five tons per day. He is erecting a furnace on the famous Lyons model, of Colorado, whither Mr. Finnerty went last winter to learn the process. His average ores yield over two hundred dollars per toa.

BRITISH COLUMBIA.

A letter from White Bluffs to the Dalles *Mountaineer*, dated June 3d, says: A train of 143 aaimals, belonging to the Hudson Bay company, arrived here on last Thursday, nine days from Colville. They report great excitement at Colville, on account of the Big Bend mines; that the town had almost been deserted aad finding it too early to work in the mines yet, one hundred had returned. The miners seem encouraged, although there is from three to four feet of snow around the Big Bend, which is disappearing rapidly.

White Bluffs is on the east haak of the Columhia, fifty miles abave Wallula.

Mining and Scientific Press.

W. B. EWER,.....SENIOR EDITOR.

C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

San Francisco:

Saturday Morning, June 23, 1866.

THE SAN FRANCISCO BOOT NAILING MACHINE

We alluded at considerable length, some weeks since to a boot and shoe nailing machine, recently invented by Mr. E. T. Barlow, of this city. This machine has since been set up, and may now be seen in operation daily, at the southwest corner of Stockton and O'Farrell streets, where the public are invited to call and examine it. This is one of the most ingenious pieces of mechanism we have ever met with. The machine displays more mechanical ingenuity than was evinced even in the original sewing machine. Many efforts have been made to accomplish the object attained by this machine, both in this country and Europe, but we believe this is the only attempt which can be pronounced anything like a success. No one who will look upon the operation of this machine for a few minutes can entertain a particle of doubt as to the complete, practical success of the machine.

By an ingenious arrangement of cams, levers, springs and cutters, it is made to take a coil of wire, and by merely turning a crank with one hand and guiding the boot or shoe with the other, the nails for holding the sole are made and driven to their place at one operation, more rapidly than the most skillful hand can drive them in the present way, after the holes had nails are made. The nails are notched or barbed as they are made, and firmly clinched on the under side, and headed upon the upper, so as to render it almost impossible to remove the sole until the nails are fairly worn out. The rapidity with which it works is wonderful, and the construction of the machine such as to remove all reasonable danger of disarrangement or breakage of any of its parts. It performs its work with the greatest uniformity and steadiness, and may be adjusted to work upon any required angle. It is applicable to wood work as well as to leather; and will be found very useful for putting together small boxes, such as caddle or tobacco boxes, and the like. The machine is a San Francisco invention, and as such reflects the highest credit upon the skill of our California mechanics. We trust that arrangements will be made at an early day to manufacture it for general use. It need not be costly; but can be manufactured at a price which will place it within the reach of every manufactory of a size sufficient to call for any class of machine work. It is also to be hoped that the inventor will take measures to secure for it a place in the Exhibition at Paris, where, we are persuaded, it will attract marked attention, and be set down as one of the most useful and ingenious machines of the day.

A COMPLIMENT TO CALIFORNIA MECHANICS.

We understand that a gentleman who owns a fine private residence on Staten Island, near New York, has become so well pleased with the working qualities and appearance of Hooker's Excelsior Pump and James B. Johnson's Windmill, both California inventions, that he has ordered one of each to be built in this city and shipped to his residence on Staten Island. The party referred to is a gentleman of much intelligence, and has given the order as above for the sole reason that, in his judgment, there is neither a windmill or pump, of Eastern manufacture, that will compare with the ones he has ordered. San Francisco machinery ordered to New York is an item worth mentioning.

THE SODIUM PROCESS—WHO WAS ITS INVENTOR?

Quite a lively discussion has been going on of late, in several publications, both English and American, with regard to the identity of the original discoverer of the sodium-amalgamation process for saving the precious metals. Priority of discovery has been claimed for both Professor Henry Wurtz, of New York, and the eminent chemist, Mr. Wm. Crookes, of London, by the friends of the respective parties. In our issue of the 19th of April last, we gave Prof. Wurtz's version of the matter, wherein that gentleman claimed that although his patent is dated as late as December 12th, 1864, the discovery was actually made several years before, and communicated "both orally and written, from time to time, to many persons"—Professor Silliman among others.

It also appears that on the 28th of April of the present year, a friend of Professor Wurtz, in a communication to the London *Mining Journal*, cites dates, and points to them as showing quite conclusively that Prof. Wurtz, and not Mr. Crookes, must have been the inventor or discoverer, and calls upon the latter to give an explanation of the circumstance upon which his claim rests.

In answer to this call, Mr. E. P. H. Vaughn, of London, who acted as agent for Mr. Crookes in obtaining his patent, makes a reply from which we extract the following paragraph:

I will also refer to dates, and may observe that I believe Mr. Crookes was, previously to July, 1865, altogether ignorant of the existence of such a person as Dr. Wurtz, of New York. For upwards of six years prior to 1865 Mr. Crookes had been engaged in experiments, having for their object the employment of metallic sodium in amalgamation; and, having sufficiently matured his process, he applied for a patent on February 11 in that year. In the course of the month of July, 1865, I was informed that the application which I had made for the American patent had been rejected, on the ground that Dr. Wurtz had already patented an invention which was substantially identical with that of Mr. Crookes; and it then appeared that Dr. Wurtz had filed his application in November, 1864, and that his patent was allowed on December 27, but was not issued until the following June, when the specification became public. I should here also observe that the writer of the article in the *Journal*, in his anxiety to be exact, has given the date of Wurtz's process as December 27, 1864, and that of Crookes' process as August 12, 1865. The date which he gives as August 12, should have been August 11, and is the date of Mr. Crookes' *final* specification, which was an amplification only of his *provisional* specification filed on February 11, 1865, and long before anything of Dr. Wurtz's American patent was known in this country.

With regard to the insinuation of plagiarism, it is sufficient to say that Mr. Crookes can produce ample evidence, both documentary and oral, to show that in 1861 he gave a full written description of the sodium process, drawing attention to its value in amalgamating gold ores, to an American gentleman, for the express object of transmission to New York. However, the disorganization of trade, consequent on the outbreak of the American war, prevented the publication at the time of his discovery in the United States. It is, therefore, clearly impossible that Mr. Crookes should have appropriated the alleged invention of Dr. Wurtz, of which he had never heard, and the particulars of which he could not possibly have known.

It may not be unimportant to mention that Dr. Wurtz applied for an English patent in June last, which was successfully opposed by Mr. Crookes in the following October, when the Attorney-General allowed the patent to pass, upon the ground that all which related to the use of sodium for gold and silver amalgamation should be struck out of the specification. The value of what remained of the patent applicable to the treatment of the other precious metals I leave for those acquainted with the subject to estimate. It is not my desire, however, in the least degree to detract from such merit as may appertain to Dr. Wurtz as an independent investigator, if the facts will support him in that character. The history of discovery abounds with analogous cases; but I cannot refrain, in the interests of science, from deprecating the indulgence in insinuations and innendoes, such as are evidently intended to be conveyed by the article which has called forth this communication.

TWELVE thousand children were born in this State during the past year.

THE FRENCH EXHIBITION OF 1867.

Some months ago Mr. Banks, of Massachusetts, introduced a bill into the National House of Representatives, appropriating a certain amount to aid the proper representation of American art and industry in the approaching World's Exhibition at Paris. This bill was promptly passed in the House. The telegraph informs us that the Senate, on Friday of last week, took up the bill, and passed it after a long debate, amended so as to increase the aggregate of appropriations to $156,000, in addition to a special item of $25,000 for the erection of extra buildings.

The bill as introduced by Mr. Banks, and as now passed by the Senate, contemplates the appointment of ten Commissioners, by the President, to represent the ten grand divisions of human industry into which all the pursuits and products of man are classed. Each Commissioner is to represent the especial interest to which he is referred. The divisions are as follows:

1. Works of Art.
2. Materials and appliances of labor to Art.
3. Furniture and other household articles.
4. Clothing, including clothes and wearing apparel.
5. Mining, and the rough and wrought products of mining.
6. Processes of mechanic arts.
7. Food, fresh and preserved, in its various states.
8. Leading agricultural products and specimens.
9. Natural horticultural products and specimens.
10. Objects especially exhibited for improving the physical and moral condition of the population of the earth.

These ten grand divisions are subdivided into ninety-five classes. It is of vast importance to commerce that the results of this exhibition should be carefully noted and properly placed before the people of this country in such a manner that they may be fully able to comprehend their advantages, and fitly appropriate them for the common benefit. No better method could have been devised to accomplish such an end than the one proposed. We have eminent and practical men in all the departments of industry specified, who are fully capable of making the necessary comparative observations, and of illustrating our own relation to the industrial pursuits of the world as they now stand, and pointing out the advantages that may be derived by modifying or improving our own practice wherever it may be deemed desirable, after the grand comparison of efforts that will be made the coming year at Paris.

The salary of each Commissioner has been fixed at $1,000; a sum happily so small that it will not be likely to attract the spoilsman. The appointment is purely honorary, and will not be likely to be sought after except by persons who will fully appreciate the duties expected of them, and who will be likely to confer the greatest benefit on the industry of our common country.

Some idea of the interest which this exhibition is attracting throughout the world, may be inferred from the following comparative statement between this and the Paris exhibition of 1855. The number of proposing exhibitors, exclusive of fine arts, is 2,280; in 1855 the number was 1,541. The total net space demanded in the forthcoming exhibition exceeds 305,000 square feet, exclusive of space demanded in the park. The net space at the disposal of the British executive is 93,000 square feet, or considerably less than one-third of the space asked for. In 1855 the net space filled was 65,000 square feet.

HENDY'S IMPROVED CONCENTRATORS.—Another of these machines has been ordered for the mines of Placer county, by C. H. Schuable. Mr. R. P. Johnson, of Jamestown, Tuolumne county, states in a letter shown us this week, that he considers this concentrator a most valuable improvement. In another column of the paper a reward is offered, by Mr. Hendy to any man who will produce evidence of a failure of any one of his concentrators.

NEW POWDER MILL MACHINERY.

The proprietors of the Miners' Foundry have been engaged for some time past in the construction of a lot of heavy machinery for the "Santa Cruz Powder Works," situated about two miles above Santa Cruz, on the San Lorenzo river. This machinery is now being shipped to its place of destination, and consists of a steam engine of 16 inches diameter of cylinder and 36-inch stroke, rating at about 100-horse power; two pairs of edge rolls or wheels, running in massive cast iron pans, and weighing seven tons each; also eight charcoal retorts, arranged in two benches of four each, most admirably designed for economizing fuel; and four large grinding mills.

A steam engine, with boilers, is something of a novelty to be connected with a powder mill; but yet such is the arrangement at these works. The boilers are to be set at a distance of about 1,000 feet from the main works, and upon the opposite side of the beautiful San Lorenzo river, which runs through the ground belonging to the company. The steam is conveyed to the engine by a pipe carefully protected from radiation, so that very little steam will be lost, while the requisite degree of safety will be obtained. The connection of the massive rollers with the driving power is admirably arranged, so that the shafting and gearing is placed beneath the floor, and quite out of sight from the mixing room, so that in case of explosion, there will be nothing but a small quantity of light covering to the room to be displaced; thus avoiding as much as possible the loss to both life and property in case of accident.

The grinding mills consist of a series of barrels, constructed and operated very much after the manner of the ordinary Freiberg barrel, employed in working silver ores. The charcoal, which is made of willow, in close retorts, together with the sulphur, is placed in these barrels, in connection with a large number of small iron balls about an inch in diameter, and the barrels made to revolve slowly. The action of these small balls of iron, soon reduces the coal and sulphur to an exceedingly fine powder, in which state it is conveyed to the mixing pans, where, in connection with the niter, it is ground, in a plastic condition, under the enormous pressure of the seven ton wheels already described.

The capacity of this machinery is fully equal to that already in use by the company, and which will still continue to be operated in order to supply the heavy demands for powder, for blasting and other purposes.

NEW MINING MACHINERY.—The Miners' Foundry is at present engaged in turning out large quantities of mining machinery. The proprietors are now at work upon a set of hoisting works for the new shaft of the Empire and Imperial Company, at Gold Hill, Nevada. This machinery is intended for deep sinking, and has been especially designed for that purpose. Attached to the reels, which are two in number, working with a single rope, through a double shaft, and directly in front of the person in attendance, are arranged two dial plates, which mark distinctly the exact position of either bucket in its appropriate shaft, at any point in its ascent or descent. These dials, we believe, are the first ones which have ever been put up in connection with any mine on this coast, although they are common in European mines.

This foundry is also constructing a 20-stamp mill, for working blue cement gravel, and a 10-stamp mill, with hoisting works and pump for the Andrew Jackson Company, at Smartsville, Yuba county. The latter mill will be driven by three 8-foot tangental water wheels. A 10-stamp mill has just been shipped for the Occidental Company, at Jacksonville, Oregon. Two of Hungerford's Concentrators (elsewhere illustrated in this paper), accompany this mill.

There is a house in Pembroke, Massachusetts, which is 230 years old. It is still inhabited, has always been in one family, and is believed to be the oldest house in the United States.

The San Francisco Latin School was established in June, 1865. Those who graduate from it will be fitted to enter colleges of the highest standing, as the course is a full preparatory, classical one. It comprises Latin and Greek, Arithmetic, Algebra, Geometry, Geography, History, Declamation, English Grammar, Rhetoric and French. The Mathematics are pursued to that extent that will qualify pupils for college.

Those who intend to have their sons follow a profession, will find that the course pursued in this school will prepare them to enter upon their professional studies, if they should not desire to send them to college.

Candidates are received for admission to this school, from both public and private schools.

No candiduto under ten years of age will be admitted. Each applicant must be ablo to read English fluently. He must be well versed in Mental Arithmetic, and in Colburn's Common School Arithmetic to pago 144, or its equivalent, be ablc to answer the most important questions in Geography, and must have sufficient knowledge of English Grammar to parse common sentences in proso, or an equivalent knowledge of Latin Grammar.

The first graduating class will completo its course on the first of June next. The usual course of study will be threo years, which, however, will be incrensed to four years for younger pupils. A full course in the Boston Latin School comprises six years; but the boys of San Francisco are expected to do a little better than the Boston boys.

This school is under the management of Mr. George M. Bunnell, as Principal, and Mr. W. K. Rowell as Assistant. During the past term of five months it has numbered sixty-three pupils. Of this number, fourteen have attained the first grade on the Roll of Honor, and four the second grade.

Mines and Mining Matters in Congress. The telegraph of June 16th states that Senator Conness, from the Committee on Mines and Mining, has reported a substitute for Mr. Sherman's bill to regulate the occupation of mineral lands, and to extend the right of pre-emption thereto, of which substitute the Committee say in their report: "By this bill it is only promised to dispose of the mines, and to provide for the segregation of agricultural lands lying within mineral regions. The proposition is to transfer the title to possessors at reasonable rates, and as part of that rate to secure the payment at three per cent. of the annual net proceeds into the United States Treasury, until the National debt shall have been paid; and this percentage is to be in lieu of all tax imposed upon the bullion at the mints and assay offices under existing laws. It is not proposed to interfere with or impose any tax on miners engaged in working placer mines, as these mines are readily exhausted and not generally remunerative; and another feature of the substitute is that it admits of rules and regulations of the miners, where the same are not in conflict with the laws of the United States."

Mr. Julian, from the House Committo on Public Lands, has submitted an elaborate report on the sale of mineral lands, to accompany the amended bill recently reported by him in the House. The report argues that the policy of preservation has proved a most signal failure, and illustrates by quoting from a late report of the Nevada Senate, showing the utter want of uniformity and the confusion worse confounded which prevails, growing out of the uncertainty of titles. The report advocates vesting the fee in miners to the extent of forty acres to each person, and the bill reported expressly authorizes departures from the rectangular system of survey when necessary, and the adoption of boundaries agreed upon by mining occupants.

A. D. Brown, of Virginia City, sends us samples of Kaoline, native and manufactured from an extensive deposit of that material, which has recently been found near that place. We shall endeavor to make further notice of this discovery, and answer our correspondent's queries next week.

Mr. Geo. H. Strono, late from the Scientific American Patent Agency, New York, has associated himself with this office, and will pay special attention to the patent department of the Press, and executing drawings for specifications and engraving on wood. Our patrons will not be disappointed with his efforts to servo their interests.

Fortunate Mining Purchase.—The Marysville *Appeal* says that the San Francisco parties, who recently purchased a quartz ledge in Wood's Ravine, near Nevada City, for $11,000, proceeded immediately to crush a lot of rock, which had been taken out previous to the purchase, and realized therefrom $13,000.

Santa Clara College.—The annual exhibition and commencement exercises of Santa Clara College will take place on the 26th and 27th instants. We acknowledge the reception of an invitation to be present, and shall endeavor to have the Press represented there on that occasion.

TOWNE & BACON, Print—

Stock Certificates,
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And every kind of Job Work that may be desired.
A NEW ARTICLE OF TAGS FOR GROCERS' USE.
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STOCK CERTIFICATES,
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And all other Blanks, Blank Books, etc., required by Mining and other Corporations, kept on hand or printed to order on short notice, at moderate prices, at the office of the Mining and Scientific Press.

ENGRAVING AND ELECTROTYPING

THE PROPRIETORS OF THE MINING AND SCIENTIFIC PRESS, having now in their office one of the best draughtsmen in the United States, are prepared to furnish Wood Engravings, for illustrating all kinds of machinery, buildings, mines, trade-marks, etc., in a superior and artistic manner. We shall give our customers in this line satisfactory work, and reasonable prices. Orders for stereotyping and electrotyping promptly filled.
DEWEY & CO.,
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THE SAN FRANCISCO
BOOT AND SHOE NAILING MACHINE.

THIS MACHINE MAY NOW BE SEEN IN DAILY OPERation at the corner of Stockton and O'Farrell streets, where the inventor may be seen and consulted at all hours.

He is especially anxious that Boot and Shoemakers, Mechanics generally, and all persons interested in the success of California inventions and California manufactures, should call and examine this specimen of California ingenuity.

The proprietor is making arrangements for their manufacture in this city; and he is now ready to contract to furnish the machine to such parties as may be desirous to purchase the same.
E. T. BARLOW.
San Francisco, June 22d, 1866. 25v12

$100 Reward!

THE ABOVE REWARD WILL BE PAID TO ANY ONE who will produce evidence of a failure of any of
Heady's Improved Self-Discharging Concentrators,
Patented February 27th, and April 17th, 1866—which said amount is deposited for 60 days with Palmer, Knox & Co., No. 19 First street, San Francisco. Send for a circular containing a description of the machine.
J. HENDY, Patentee,
25v12-tf] No. 402 Montgomery St., Room 3, 4th Floor. S. F.

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Steam Engine Works,
Beale street, near Mission, San Francisco.

STEAM ENGINES OF EVERY DESCRIPTION BUILT to order—Marine, Stationary, or Locomotive.
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PORTABLE ENGINES, OF ALL SIZES,
DONKEY PUMPS, Etc., Etc., Etc.

The attention of the parties engaged in shipping or inland navigation is called to the
Superior Workmanship
of Mr. LOCHHEAD, who has been in the business in San Francisco for the last fourteen years, and enjoys the reputation of having built ONE HUNDRED AND SEVENTEEN STEAM ENGINES.
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Drawings of Models made for parties applying for patents at Washington or London. mar23-tf.

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Attorney and Counsellor at Law,
COURT COMMISSIONER, appointed by the Fourth District Court, COMMISSIONER OF DEEDS for Nevada and Massachusetts,
Court Block, San Francisco.
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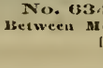
Mining Engineer and Millwright,
Office, 606 Kearny street,
22v12 SAN FRANCISCO, CAL.

DR. H. AUSTIN,



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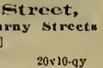

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Between Montgomery and Kearny Streets
[OVER SAN FRANCISCO BATHS]
SAN FRANCISCO. 20v10-qy

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OCULIST,
Office of Dr. Beckford's "Golden Eye Water,"
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Member of the
San Francisco Stock and Exchange Board,
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Office, No. 540 Washington Street, San Francisco. 2v10

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MINING ENGINEER,
Will make Surveys and Examinations of Mines, or give advice regarding their working, the erection of Machinery, etc.
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11v22qy

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10v8-tf

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No. 57 Montgomery Block, San Francisco,
Will examine, survey and report upon mines, and consult and advise concerning investments in mining property, or the machinery management and expenditures of mines.
22q*

Rheumatism!!
READ IT! READ IT!!

Sacramento, April 16th, 1866.

H. BOWMAN—DEAR SIR: THIS IS THE FIRST WRITing I have done in two years, and it affords me great pleasure to be able to use my pen in the service of those who are suffering, as I have suffered, by stating the following facts:

I have for two years and upwards been afflicted with CHRONIC RHEUMATISM, and until a few weeks ago I have never found anything that afforded me any relief. For three months of the time I was unable to feed myself, and for the last five months my arms have been so bent that I have not been able to dress myself. I was five months at the Warm Springs, at San Luis Obispo, and three months at a Hydropathic Institute in Stockton, and I have been under the care of six different physicians, in the vain hope of relief. About four weeks ago I was induced by a person who had been cured by it to try a bottle of RICHARD'S REMEDY FOR RHEUMATISM, and in less than twelve hours I experienced great relief. In a few days I was enabled to straighten out my arms, and I have been getting better and gaining in strength and flesh ever since. I have now the complete use of all my limbs, and, for the first time in two years, I am out of pain. I do feel for those who suffer as I have suffered, and if they will take my advice, they will lose no time in giving the REMEDY a trial.
Yours truly, GEORGE TAYLOR.

☞ Richards' Remedy is for sale by
H. BOWMAN,
Druggist, Sacramento.
Price, $2 50 per Bottle. 20v12

STODDARD'S
CELEBRATED WATER FILTERS!

RENDER RAIN, RIVER, OR SPRING VALLEY WATER perfectly pure and healthy. Three sizes. Price, $12, $15 and $18. For sale by
S. B. STODDARD,
Corner of Battery and Pacific streets.
June 23, 1866. 25v12-3m

The Great Pain Annihilator.

DR. E. R. JOHNSON WILL WARRANT TO CURE ALL cases of Asthma, Fever and Ague, Catarrh, Sore Throat, and Womb Diseases. The Doctor's success in miraculous in cases of RHEUMATISM, NEURALGIA, CONSUMPTION, GOUT, PARALYSIS, INFLAMMATION OF THE EYES, and all other diseases that human skill can reach. Rheumatic Pains removed in five minutes. Some of the afflicted that visit him come from one to six hundred miles, and seem find relief. Persons at a distance can be cured at home by addressing a letter to Dr. Johnson, No. 709 Market Street, San Francisco, stating case, symptoms, length of time the disease has continued, and have medicine promptly forwarded to any part of the country, with full and plain directions. ☞ Consultation by letter or otherwise, FREE. 16v12-1m

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BOOKBINDERS,
Paper Rulers and Blank Book Manufacturers,
505 Clay street, (southwest cor. Sansome),
15v12-3m SAN FRANCISCO.

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(SUCCESSOR TO O. GORI)
MARBLE WORKS,
No. 408 Pine st. bet. Montgomery and Kearny, San Francisco.
Mantels, Monuments, Tombs, Plumbers' Slabs Etc., On hand and Manufactured to order.
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General Furnishing Undertaker,
641 Sacramento st., corner of Webb, San Francisco.
Barstow's Metallic Burial Caskets and Cases
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THEODORE KALLENBERG,
Maker of Models for Inventors.
MACHINES, MATHEMATICAL, OPTICAL AND PHILOSOPHICAL Instruments, Scales, Weights, etc. Steel Stamps, Dies and Die Sinking, Embossing Stamps. Repairing of machinery promptly attended to.
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Palmer's Patent
ARTIFICIAL LEG,
Manufactured in Philadelphia, Penn.
JARVIS JEWETT, AGENT.
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Market street, between Beale and Main,
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STONEWARE AND EARTHENWARE OF ALL DESCRIPtions, such as Butter Pots, Pickle Jars, Churns, Water Jugs, Bean Pots, Flower Pots, etc., etc., from the manufactory of N. Clark, Esq., Sacramento—constantly on hand and for sale, in quantities to suit, by
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FIRE, HYDRAULIC & SUCTION HOSE,
And Leather Belting.
M. M. COOK & SON,
861 Battery Street, San Francisco,
Are now manufacturing as above, Fire, Hydraulic and Suction Hose, and Leather Belting, of any dimension and in any quantity which may be desired. Fire Hose and Belting constantly on hand or manufactured to order. Also Saddles and Horse Collars.
The subscribers would respectfully ask purchasers to call and examine their stock—also testimonials of the efficiency of their work from such as have used their hose both for fire and mining purposes. A diploma was awarded to us last year, by the Mechanics' Institute, of this city, and a silver medal this year. 12v11-1y

SAN FRANCISCO
CORDAGE MANUFACTORY.
CONSTANTLY ON HAND,
A Large and Complete Assortment
—OF—
MANILA CORDAGE
FOR MINING PURPOSES
—ALSO—
WHALE LINE, BALE ROPE, ETC.,
Manufactured from Pure Manila Hemp.
Hoisting Ropes for Deep Shafts,
—ALSO—
Lines for Ferry Boats,
Manufactured to Order.
Office at TUBBS & CO.'S,
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COPPERSMITH
—AND—
SHEET IRON WORKER,
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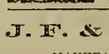

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Bedding and Furniture,
OF EVERY DESCRIPTION,
Blankets, Comforters, Sheets, Etc.,
504 and 506 Sansome street, near Clay,
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☞ This establishment is now generally known to be th CHEAPEST PLACE in the city for good Bedding. 21v12-3m

Subscribers who do not receive the Mining and Scientific Press in due time, are requested to inform the publishers.

ONLY A LITTLE BROOK.—A simple but touching incident has been related to us, says the *Maine Press*, in connection with the last moments of a beautiful little girl in Bath, who lately died at the age of nine years and eleven months. A very little while before she died, as the sorrowing friends stood around her, watching the last movings of the gentle breath, the last faint flutterings of the little pulse, they became aware, from her broken words, that she shrank with natural dread from the unknown way that was opened before her. She had come to the borders of the mysterious river which separates us from the dim hereafter, and her timid feet seemed to hesitate and fear to stem the flood. But after a time her fear subsided, she grew calm, and ceased to talk about the long, dark way, till at the very last, she brightened suddenly, a smile of confidence and courage lighted up her sweet face. "O, it was only a little brook!" she cried, and so passed over to the heavenly shore.

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PALMER, KNOX & CO.,

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NEW GRINDER AND AMALGAMATOR

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Giving the greatest power, at lower cost, than any Wheel in use. There are over 1,500 running, giving universal satisfaction.

KNOX'S AMALGAMATORS,

WITH PALMER'S PATENT STEAM CHEST,

Superior for working either Gold or Silver Ores.

Genuine White Iron Stamp Shoes and Dies

Having been engaged for the past eight years in quartz mining, and being conversant with all the improvements, either in Mining or Milling, we are prepared to furnish, at the shortest notice, the most perfect machinery for reducing ores, or saving either gold or silver. 13v10ny-tf

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Steel Lined Bank Vaults and Safes,

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Grating and Iron Fences, Stairs, Etc.

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BURGLAR-PROOF LOCK,

☞ No KEY, or visible signs of OPENING, ☜

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Hoisting and Pumping Engines,

Portable Engines of all Sizes; Donkey Pumps, Etc

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HAVING INCREASED OUR FACILITIES IN EVERY DEPARTMENT, WE ARE NOW prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

ENGINES.—Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott & Eckart's Adjustable Cut-off Regulator—best in use; W. & Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

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OIL BORING TOOLS AND MACHINERY—Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania. We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

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The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

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Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCINO PAN AND AMALGAMATOR

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Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

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THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality. Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

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Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

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Wine, Cider, Cotton and Tobacco Presses of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Baux & Guiod's Amalgamator and Separator; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston-Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS, Bought, sold, or exchanged. Bolt Cutting and Castings at the lowest market rates.

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Practical Machinists and Iron Founders,

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QUARTZ MILL MACHINERY OF ALL KINDS,

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Dunbar's Improved Self-Adjusting

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Now so extensively used in the East and in this State. Requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

HANSCOM'S CRUSHER,

The best of the kind now in use in this State or anywhere else

Wheeler & Randall's New Grinder and Amalgamator,

Which only needs examination to be appreciated.

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Giving greater power, at lower cost, than any wheel in use Send for one of our circulars, giving full tables

All Wheels warranted to give the power as set forth, or the money will be refunded.

Sole makers for this coast of the "Pendergast White Iron Stamp Shoes and Dies.

None genuine unless obtained from us. Every one warranted.

Patented Machinery of all kinds will be furnished by us at market prices. Particular attention given to drawings and specifications of machinery, which will be made to order. The patronage of the public is respectfully solicited. 13v12

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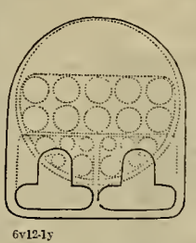

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WILLIAMS, HEILBRON & CO.,

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And all kinds of Mining Machinery.

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Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

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Miners' Foundry

—AND—

MACHINE WORKS,

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EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,

Machinery, Mining Pumps, Amalgamators,

Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

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No. 43 First street, San Francisco,

(Between Mission and Market.)

MANUFACTURERS OF all kinds of **Brass** and **Bell Castings;** Force and Lift Pumps; Cocks and Valves of every description made and repaired; Oil Globes, Steam Whistles, Hydraulic Pipe and Nozzles (for Mining purposes). Also,

COUPLINGS OF ALL SIZES.

☞ Particular attention paid to Hydraulic Pipes and Nozzles; also, to Ship Work of all descriptions. All orders from the interior will be attended to with promptness and dispatch. 23v12-3m

GEORGE T. PRACY,

MACHINE WORKS,

Nos 109 and 111 Fremont street, near corner of Mission,

OPPOSITE MECHANICS' MILL,

SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL And Quartz Machinery, Printing Presses,

—AND—

MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

☞ Special attention paid to Repairing. ☜ qy-3

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

The Philosophy of the Soap Bubble.

Even the little soap bubble, which has amused every school-boy and every school-girl since the invention of soap, has its little lessons of philosophical study. The great Sir Isaac Newton, whose comprehensive mind went out into the vast expansions of the etherial universe, to measure the orbits of planets and weigh suns, did not consider the little *soap bubble* beneath his consideration and careful study. In our own day, Professor Henry, of the Smithsonian Institute, has devoted much time to observing and experimenting on the extent of the mechanical action developed among the component particles of the soap bubble. Every one must have noticed that when a soap bubble has been blown to a considerable size without being forced from the tube through which it has been formed, a contraction of the bubble immediately ensues, and the air is forced back through the tube into the open atmosphere. Professor Henry, in noticing this phenomena, was led to make some calculations with regard to the tension of the thin film of liquid composing the bubble, and his conclusions are recorded in the American *Journal of Science* of 1845, to the effect that the elastic tension there developed was "equal at least to several hundred pounds to the square inch!"

Why does a soap bubble exhibit such a variety of colors? is doubtless a question that has often occurred to most of those who have amused themselves in this, usually, the first delightful experiment of every youthful philosopher. The answer is because the thickness of the film composing the bubble is constantly varying; and the degrees of thickness in the film produce different powers of refraction, and therefore as the thickness of the film varies, different colors reach the eye.

But why is the soap bubble so constantly changing its thickness? asks one.

The answer to this is, first from the distending action caused by forcing in the air, thereby increasing the size of the bubble; and subsequently, and more particularly, by the water running down from every part of the upper circumference of the bubble till the crown or upper part becomes so thin as to burst. The thinner the film the brighter and more beautiful the rays. Like the "bubble, reputation," it always bursts when it reaches its climax.

To be ephemeral, "a moment here, then gone forever," is so well known a characteristic of a bubble, that we use the word to denote anything that will quickly pass away. Now, however, in this age of variety, we have made a change even in soap bubbles, so that once formed they can be preserved for a considerable time. They can also be made so large that they will not go into a school-boy's hat. Then, again, these rainbow bubbles are so tough, or rather, elastic, that they can be let fall from a hight of six feet on to a carpet or worsted table-cover, and made to roll about with every breath hither and thither, and yet not burst. You can even play at battledore and bubble in this way: Having taken two ordinary battledores, covered with green baize, blow a bubble, and toss it from one to the other. Sometimes you can have two bubbles, or even three afloat at one time. The directions for making them are given as follows:

Take one gill of water that has boiled and got cold, and put into it a quarter of an ounce of castile soap, cut up fine. Put this into a pint bottle and set it into hot water, in a saucepan on the stove; there let it remain an hour or so (now and then with a shake up), till the soap is dissolved. Now let the fluid stand quiet for a few hours for the impurities and coloring matter of the soap to settle; then pour off the fluid, and add to it two ounces of glycerine, and your bubble solution is ready. In an ordinary way, you may blow the bubbles easily with a clean tobacco pipe; but if you wish to attain scientific perfection, you had better employ a glass pipe. The iridescent colors displayed by these spheres in sunlight are so brilliant that the term "Rainbow Bubbles" scarcely convey a correct idea of them.

There doubtless remains much more of the hidden principles of science yet to be discovered by studying the formation and phenomena of "bubbles," than "men have yet dreamed of in their philosophy;" but enough for the present.

THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

Metallurgy.

G. KUSTEL,

Metallurgist and Mining Engineer,

Stevenson House, corner Montgomery and California sts.

Ores Analyzed,

Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.

20v11 3m

BOALT & STETEFELDT,

Metallurgists and Mining Engineers

AUSTIN, NEVADA.

Western Branch of AOELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

G. W. MAYNARD. J. H. TIEMANN.

MAYNARD & TIEMANN,

Mining Engineers and Metallurgists,

240 Pearl street, New York,

—AND—

CENTRAL CITY, COLORADO.

19v12-1y

Copper, Lead, Gold, Silver,

Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

THOMAS PRICE,

Agent for Townshend Wood & Co., Swansea,

No. 406 California Street, San Francisco.

15v10-3m

Copper Ore! Copper Ore!

BOUGHT BY

CONROY & O'CONNOR,

Front, near Pine street, San Francisco.

18v12-tf

To Copper Miners and Others Interested in the Working of Copper Ores.

THE UNDERSIGNED HAVING BEEN APPOINTED Agent and Attorney by N. Haskell, for the sale of his COPPER SMELTING FURNACE, which has proved a perfect success, is prepared to furnish the same to parties having Copper Ore, or will make arrangements to buy their ore, receivable at their mines. For further particulars, apply to

JOHN N. RISDON,

21v12 At Coffey & Risdon's, San Francisco.

COPPERAS! COPPERAS!

200 BARRELS COPPERAS—SULPHATE OF IRON. For sale, in lots to suit, by

BENJAMIN BRADY,

103 California street,

24v12 Southwest corner of Davis, up-stairs.

MARTIN & CO.,

Office, Stevenson House,

Corner California and Montgomery streets (up stairs).

WILL CONTRACT FOR THE

PURCHASE OF COPPER ORES.

Assaying eight per cent. and upwards of Copper to the We will make advances upon Ores of Copper.

San Francisco, Post Office Box 1209. 22

SODIUM,

Potassium, Magnesium,

And a fresh supply of

PURE CHEMICALS.

Just received and for sale by

JOHN TAYLOR & CO.,

4v12-1m 512 Washington street.

EUROPEAN METALLURGICAL WORKS,

—AND—

Practical Mining School,

Bryant Street, Between Third and Fourth,

SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Oressent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

S. P. KIMBALL, J. R. MURPHY.

10v10

Clay Street. **PAPER WAREHOUSE** AND **Printers' Materials** CHAS. F. ROBBINS & CO. Clay Street.

10-v12

JOHN TAYLOR & CO.

IMPORTERS,

AND DEALERS IN

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and DEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco March 6, 1865. 11v10-tf

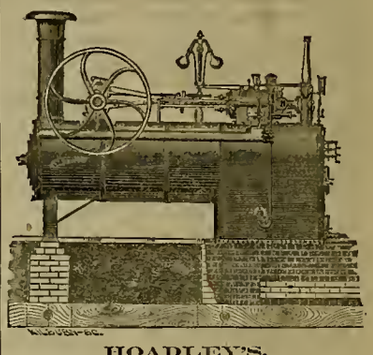
Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

HOADLEY'S.

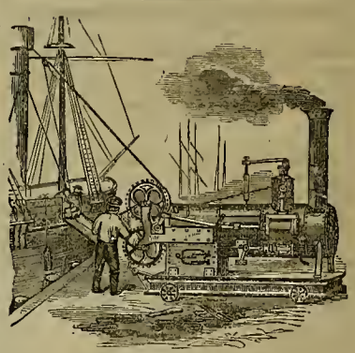
FOUR SIZES,

8, 10, 12, and 15-Horse Power,



HOADLEY'S.

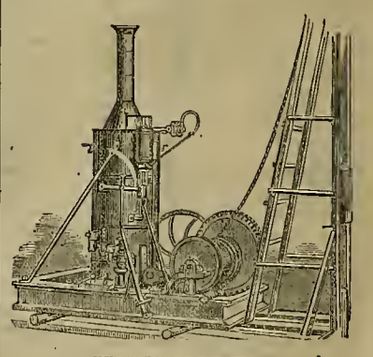
3 to 40-Horse Power.



HITTINGER'S.

THREE SIZES,

5, 7, and 10-Horse Power



HITTINGER'S.

TWO SIZES,

5 and 7-Horse Power,

COMBINING THE MAXIMUM OF EFFICIENCY, DURability, and Economy, with the Minimum of weight and price

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by **TREADWELL & CO.,**

18v12 Corner of Front and Market streets.

Postage.—The postage on the MINING AND SCIENTIFIC PRESS to any portion of the United States is twenty cents per annum, or five cents per quarter, payable in advance at the Post Office delivering the paper. Postage free in the city and county. Foreign postage (with few exceptions) two cents per copy, prepaid. To Bremen and the German States (marked via Bremen and Hamburg line), three cents per copy, prepaid. Single copies to any address in the United States, two cents.

TRY IT 50 PER-CENT SAVED BY USING

STANDARD SOAP COMPANY'S WASHING POWDER,

THIS POWDER IS SUPERIOR TO ALL OTHER PREparations for washing and cleansing. It is made of pure material, and contains nothing that will injure the finest fabric. Equally as good for using in hard as soft water. One pound will make three gallons of beautiful soft soap. Put up in wrappers of 1-lb each, and in wooden boxes of 10-lbs bulk. Ask your grocer for a package, and test its virtue. Manufactured at **207 Commercial street**, San Francisco. 15v12q

Pacific Mail Steamship Co's THROUGH LINE TO NEW YORK,

Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT **11** o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

On the **10th**, **18th** and **30th** of each month that has **30** days.

On the **10th**, **19th** and **30th** of each month that has **31** days.

When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceding; when the 18th falls on Sunday, they will leave on Monday following.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departures of 14th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

June 30th—GOLDEN CITY.....Capt. Jas. T. Watkins.
Connecting with ARIZONA, Capt. Maury.

Cabin passengers berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.

OLIVER ELDRIDGE, Agent.

New Mining Advertisements.

Notice.—The Annual Meeting of the Stockholders of the ASSURANCE MINING COMPANY, will be held on MONDAY, July 9th, 1866, at 4½ o'clock P. M., in the office of the Company, Room No. 4, 302 Montgomery street.

je23 WM. F. BRANDRETH, Secretary.

Crockett Consolidated Mining Company.

Location of Works: District and County of Esmeralda, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the seventeenth (17th) day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
P W Andersoa	592	50	$50 00
Edward Brown	605	10	10 00
Edward Brown	607	10	10 00
J. G. Cowell	475	10	10 00
G. A. Coursea	616	10	10 00
G. A. Coursen	617	10	10 00
G. A. Coursen	618	10	10 00
G. A. Coursen	619	10	10 00
G. A. Coursea	620	10	10 00
C. F. Hayward	369	4	4 00
F. Haven	456	10	10 00
L. Kuha	625	50	50 00
L. Kuha	626	45	45 00
V. Noly	614	20	20 00
W. P. Pool	645	400	400 00
W. P. Pool	624	20	20 00
J. W. Pearson	622	10	10 00
Wm. Ready	bal on 643	1	1 00
G. W. Radcliff	561	10	10 00
G. W. Radcliff	562	10	10 00
G. W. Radcliff	563	10	10 00
G. W. Radcliff	568	10	10 00
G. W. Radcliff	569	10	10 90
G. W. Radcliff	574	20	20 00
G. W. Radcliff	575	20	20 00
E. L. Saith	601	50	50 00
George Stewart	621	20	20 00
C. Wilson	612	10	10 00
C. Wilson	613	10	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 17th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of Joha Middleton & Son, 404 Montgomery street, San Francisco, Cal., on the tenth (10th) day of July, 1866, at the hour of 12 o'clock M. of said day, to the highest bidder; for cash in United States gold coin, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchange Building, 713 Montgomery street, San Francisco, Cal. je23

Gold Hill Tunnelling Gold and Silver Mining Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

NOTICE.—The Third Annual Meeting of the stockholders of the above named Company, will be held at their office, 415 Montgomery street, San Francisco, Cal., on SATURDAY, the twenty-first (21st) day of July, 1866, at 7½ o'clock P. M., for the purpose of electing Trustees to serve for the ensuing year, and such other business as may properly come before it.

R. WEGENER, Secretary.

N. B.—All stockholders who cannot be present are requested to file their proxies with the Secretary. je23

Gold Hill Tunneling Gold and Silver Miuing Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessmeat (No. 7) levied on the tenth day of May, 1866, the sovcral amouats set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bell, B C	174	25	$25 00
Bell, B C	175	25	25 00
Bourgeois, F Cesar	251	20	20 00
Begon, L	339	10	10 00
Begon, L	340	10	10 60
Begon, L	341	10	10 00
Begon, L	349	7	7 00
Chantereau, E	55	15	15 00
Caillie, M	285	25	25 00
Caillie, M	293	5	5 00
Caillie, M	294	5	5 00
Cone, Octavo	348	13	13 00
Don Raymond	123	10	10 00
Duval, Charles	281	10	10 00
Entoine, Eugene	29	15	15 00
Fitch, J R	344	40	40 00
Gailhard, Charles	2	25	25 00
Gailhard, Charles	3	25	25 00
Gailhard, Charles	4	20	20 00
Guiebet, F	107	10	10 00
Caudin, Charles	142	10	10 00
Kornicld, Charles	30	10	10 00
Lamolle, B	92	10	10 00
Lamolle, B	93	10	10 00
Lamolle, B	94	10	10 00
Lamolle, B	95	10	10 00
Lamolle, B	96	10	10 00
Lamolle, B	97	10	10 00
Lamolle, B	98	10	10 00
Lamolle, B	99	10	10 00
Lamolle, B	100	10	10 00
Lamolle, B	101	10	10 00
Lamolle, B	102	10	10 00
Lamolle, B	103	10	10 00
Lamolle, B	104	10	10 60
Lamolle, B	105	5	5 00
Lamolle, Jean	106	25	25 00
Lemarie, F	239	10	10 00
Lemaric, F	284	5	6 00
Lemarie, F	296	8	8 00
Lemarie, F	32t	6	5 00
Lemaitre, F	270	10	10 00
Larco, N	287	50	60 00
Mouahan, William	343	10	10 00
Pervier, Louis	347	13	13 00
Roncier, F	286	10	10 00
Roncier, F	295	5	5 00
Sajous, Jean	283	10	10 00
Sajous, Jean	292	14	14 00
Serres, Miss Scolg.	147	10	10 00
Yard, Ceo M	322	5	5 00
Zadig, Pb.	35	8	8 00

And in accordanee with law and an order of the Board of Trustees, made on the tenth day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Maurice Dore & Co., No. 327 Montgomery street, San Francisco, Cal., on Tuesday, the tenth of July, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

R. WEGENER, Secretary.

Office, 415 Montgomery street. San Francisco, Cal. je23

Humboldt Canal Company.—Office, 716 Montgomery street, Up stairs.—San Francisco, June 19th, 1866.

Notice is hereby given, that in accordance with the By-Laws, the Annual Meeting of the Stockholders of the above-named Company, for the electioa of Trustees, and such other business as may be presented, will be held on THURSDAY, July 19th, 1866, at 3 o'clock P. M.

je23 ED. CHEVASSUS.

Mina Rica de las Flores Mining and Mill Company, Camp Flores, near West Point, Calaveras County, California.

NOTICE.—There are deliaquent upon the following described stock, on account of assessment (No. 12) levied on the eighth day of May, 1866, the several amounts set opposite the aames of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Anderson & Co., C. A.	42	5	$ 5 00
Anderson & Co., C. A.	43	3	3 00
Anderson & Co., C. A.	44	2	2 00
Anderson & Co., C. A.	151	2	2 00
Anderson & Co., C. A.	152	2	2 00
Anderson & Co., C. A.	153	3	3 00
Anderson & Co., C. A.	162	1	1 00
Anderson & Co., C. A.	363	1	1 00
Anderson & Co., C. A.	164	1	1 00
Anderson & Co., C. A.	227	10	10 00
Anderson & Co., C. A.	228	10	10 00
Anderson & Co., C. A.	229	5	5 00
Bernhammer, H.	625	5	5 00
Diogeon, L.	92	4	4 00
Dumartheray, F.	665	10	10 00
Eklof, S.	670	50	50 00
Enqvist, A.	668	83	83 00
Fogarty, P.	683	67	67 00
Giess, J.	671	5	5 00
Hoelscher, W.	550	22	22 00
Johnston, J. H.	513	40½	40 50
Konig, G.	511	10	10 00
Linterwasser, P.	124	5	5 00
Marks, A. C.	159	3	3 00
Mermoud, L.	689	20	20 00
Murphy, J.	46	10	10 00
Murphy, W.	245	5	5 00
Parsons, G.	70	50	50 00
Schenk, M.	140	10	10 00
Schulte, F. W.	105	5	5 00
Schulte, F. W.	106	5	5 00
Schulte, F. W.	190	5	5 00
Schulte, F. W.	191	5	5 00
Schulte, F. W.	192	5	5 00
Schulte, F. W.	193	5	5 00
Schulte, F. W.	218	5	5 00
Schulte, F. W.	616	5	5 00
Steinbeieng, Mrs. C.	244	5	5 00
Stock, J.	663	40	40 00
Thomsen, C.	594	5	5 00
Thomsen, C.	595	5	5 00
Thomsen, C.	596	5	5 00
Veiller, J.	102	10	10 00
Wael, J. H.	39	6	6 00
Wael, J. H.	166	2½	2 50
Wael, J. H.	301	2½	2 50

And in accordanco with law and an order of the Board of Trustees, made on the eighth day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auctioa, at the Office of the said Company, No. 423 Washiagton street, Room No 13, up stairs, on the sixteenth day of July, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertisiag aad expenses of sale.

S. DICKINSON, Secretary.

Office, 423 Washington street, Room No. 13, Saa Francisco. je23-4w San Francisco, Juae 17, 1866.

Sweet Vengeance Gold and Silver Mining Company, Brown's Valley, Yuba County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of June, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable forthwith, in United States gold and silver coin, to the Secretary, at his office, No. 705 Sansome street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the twenty-third day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the fifteenth day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

F. S. SPRING, Secretary.

Office, No. 705 Sansome street, San Francisco. je23

Mining Notices--Continued.

Arbitrios Mining Company, Batopilas District State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of May, 1866, an assessment (No. 10) of one dollar and fifty cents ($1.50) per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 811 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 12th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 13th day of August, 1866, to pay the delinquent assessment thereon, together with costs of advertising and expcuses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.

Office, 811 Montgomery street, San Francisco, Cal.

N. B.—Until further notice, all advertisements of this Company will appear in the MINING AND SCIENTIFIC PRESS. je2

Arizona Copper Mining Company, Castle County, Arizona Territory.

Notice is hereby given that at a meeting of the Board of Trustees of said Company, held on the second day of June, 1866, an assessment of forty cents per share was levied upon the capital stock of said company, payable on the fifth day of June, 1866, in United States gold and silver coin, to the Secretary, at his Office, No. 302 Montgomery street, in the city of San Francisco.

Any stock upon which said assessment shall remain unpaid on the seventh day of July, 1866, shall be deemed delinquent, and will be daly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the twenty-fourth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

SAMUEL L. C. SWEZEY, Secretary.

Office, No. 302 Montgomery street, San Francisco, California. je9

Boston Copper Mining Company, Ohio Mining District, El Dorado County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, 1866, an assessment of fifty (50) cents per share was levied upon the capital stock of said Company, payable on the 22d day of May, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, No. 626 Montgomery street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 22d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the 18th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

J. C. HUTCHINSON, Secretary.

Office, 626 Montgomery street, San Francisco, Cal. my26

Capitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

NOTICE.—There are deliaquent upon the following described stock, on account of assessment levied on the 20th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
D T Adams	not issued	300	$30 00
H Bish	92	100	10 00
H Bish	93	50	5 00
S Peck	39 to 51 inc.	200	20 00
S Peck	not issued	100	10 00
J E Redman	99	200	20 00
J E Redmaa	not issued	100	10 00
C E Abbott	63	10	1 00
C E Abbott	65	20	2 00
C E Abbott	66	60	5 00
C E Abbott	not issued	40	4 00

And in accordance with law, and an order of the Board of Trustees, made on the thirtieth day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, on the second day of July, 1866, at the hour of 2 o'clock P. M., to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

D. R. BECKFORD, Secretary.

Office, No. 731 Clay street, San Francisco, Cal. je16

Cosala Silver Mining Company, Cosala District, State of Sinaloa, Mexico.

Notice is hereby given that at a meeting of the Trustees of said Company, held on the 26th day of May, 1866, an assessment of one (1) dollar per share was levied upon the assessable capital stock of said Company, payable immediately in gold coin of the United States, to CHARLES BAUM, Secretary, at the office of this Company, No. 510 Battery street, opposite the Custom House, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on the 17th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

CHAS. BAUM, Secretary.

Office, No. 510 Battery street, opposite the Custom House, San Francisco. jul

Dios Padre Gold and Silver Mining Company. Location of Works: Alamos, Mexico.

NOTICE.—There are delinquent upon the following described stock, on account of assessmeat levied on the twenty-eighth day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
A D Rightmire	193	4	$12 00
A D Rightmire	266	3	9 00
A D Rightmire	331	5	15 00
William Bibler	293	20	60 00
William Bibler	228	5	15 00
William Bibler	389	25	75 00
Srah Maddux	387	133	399 00
Sarah J Maddux	301	40	120 00
A J Gambill	242	25	75 00
A J Gamhill	304	18	54 00
A J Gaahill	305	22	66 00

And in accordance with law and an order of the Board of Trustees, made on the 28th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Olney & Co., at No. 418 Montgomery street, San Francisco, Cal., on the 23d day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

E. C. McCOMB, Secretary.

Office, No. 1 Government House, corner Sansome and Washington streets. je9

Diana Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of June, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 20th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Friday, the 10th day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.

Office, 402 Front street, San Francisco. je9

Eagle Quartz Mining Company.—Location of Works: Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the fifteenth day of May, 1866, the several amouats set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
J F Araold	91	5	5 00
J P Bush	10	100	100 00
Joha Bollen	63. 90 1-ea	2	2 00
E P Cutter	151	15	15 00
M Eldred	149	1	1 00
John Herzn	144	30	30 00
H S Hudson	61	10	10 00
Miss M Pratt	20	6	5 00
Issac Rowell	8	26	25 00
Eli Schell	173	25	25 00
E D Waters	18	20	20 00
E D Waters	19	20	20 00
E D Waters	9	7	7 00
E D Waters	99	83	83 00
E D Waters	162	15	15 00
A M Waters	171	6	6 00
E A Waters	44	7	7 00
E D Waters, Trustee	185	150	150 00

And in accordance with law, and an order of the Board of Trustees, made on the fifteenth day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of John Middleton & Son, 404 Montgomery street, San Francisco, on the sixth day of July, 1866, at the hour of 12 o'clock M. of said day, to the highest bidder for cash, in U. S. gold coin, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.

Office, No. 10 Exchaage Building, 713 Montgomery street, San Francisco, Cal. jc16-2w

Evoca Consolidated Copper Mining Company: Location of Works—Court Hill District, near Black's Ferry, Del Norte County, California.

NOTICE.—There are delinquent upoa tho following described stock, on account of assessment levied on the fourth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
G. S Ashmead,	173	50	$12 50
G. S. Ashmead,	238	50	$12 50
F. Collier,	21	112	$28 00
J. H. Stewart,	256	17	$ 4 25
J. H. Stewart,	257	6	$ 1 25
W. F. Williamson,	14	112	$28 00
W. F. Williamson,	15	112	$28 00

Aad in accordance with law and an order of tbo Board of Trustees, made on the 4th day of May, 1866, so maay shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 418 Montgomery street, San Francisco, Cal., on the second day of July, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertisiag and expenses of sale.

CHARLES E. ABBOT, Secretary.

Office, 632 Merchant street, Room 3, San Francisco, California. je9

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are deliuquent upon the following described stock, on account of assessment levied on the 10th day of April, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Boggs, Ceo W	137	6	$6 00
Boggs, A G	67	11	11 00
Cone, Jesse B	136	5	5 00
Coue. Jesse B	18, 133 and 134 10-ea	30	30 00
Cook, A J	93	10	10 00
Cornwell, James F	82	10	10 00
Calderwood, Mathew	160	10	10 00
Clark, J Warren	not issued	10	10 00
Davidson, Ole	57	6	5 00
Dutton, David	244	4	4 00
Dutton, David	219, 220, 242 and 243 10-ea	40	40 00
Forrester, E A	88	5	5 00
Francis, J H & J G	277	5	5 00
Gillam, John	73 and 74 10-ea	20	20 00
Grigsby, T L	99	10	10 00
Grigsby, R F	169	10	10 00
Hackney, H W	37	5	5 00
Hastie, Robert	259	10	10 00
Kather, Chas	90	15	15 00
Kercheval, Sarah A	240	10	10 00
Linn, Geo	263	10	10 00
Midgett, John	261 aad 262 5-ea	10	10 00
Miller, G A	91	10	10 00
McGill, Wm	41	5	5 00
Mason. Chas	254	5	6 00
Nelson, A G	55	1	1 00
Nelson, J G	56	5	5 00
Pearson, J N	212 and 213 5-ea	10	10 00
Ransdell, S W	215	6	6 00
Roberts, J R	279	6	6 00
Vann, Mathew	161	5	5 60
Vack, J	285	10	10 00
Vack, J	293	5	5 00
Whitton, M S	185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196 10-ea	120	120 00
Whitton, Wm F	214	10	10 00
Whitton, C J	299	5	6 00
York, John	276	5	5 00

And in accordance with law, and an order of the Board of Trustees, made on the 10th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auctioa, at the auction rooms of Messrs. Olney & Co., 418 Montgomery street, on the 26th day of Juae, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

W. D. ROOT, Secretary.

Office, 338 Montgomery street, San Francisco. je8

Great Basin Mining Company, Humboldt County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the second day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
H E Highton	273 to 277 100-ea	500	$45 00
H E Highton	203, 204, 206 to 212 279 50-ea	500	45 00
H E Highton	213, 214, 216, 218 to 2.0, 222 to 2.6 223 to 232 25-ea	400	36 00
H E Highton	60	20	1 80
H E Highton	240	15	1 35
H E Highton	1, 61, 63 to 68, 77 to 91, 93 to 96 10-ea	270	24 30
H E Highton	48, 54, 55, 56, 59, 60 240 to 242, 257 to 258 5-ea	55	4 95
H Rutenop	4	5	45
H Buteuop	152	7	63
H Erhart	5	5	45
W Kruning	6	10	90
Theo Meetz	7	5	45
Benj Simon	8	5	45
M Freny	9	10	90
Jno Kuhlmoos	10	5	45
H Fogelbrecht	12	10	90
T Wetzel	13	5	45
A Pschidr	14	5	45
C Schultz	243	100	9 00
C Schultz	244 to 250 10-ea	70	6 30
J F Holmke	16	10	90
W E F Krause	17 to 20 5-ea	20	1 80
W E F Krause	22, 23 10-ea	20	1 80
W E F Krause	24 to 27 25-ea	100	9 00
Tong Wo & Co	28	50	4 50
Ellen Watkins	29	5	45
B Henly	30	2	18
Geo G W Hoge	31	10	90
D Bazzolini	32 to 30 20 ea	100	9 00
D Bazzolini	312	100	9 00
C H Voight	37	25	2 25
G O H Taaffe	38	25	2 25
G O H Taaffe	309	200	18 00
H Celtcher	39, 40 25-ea	50	4 50
W B Cooke	41	50	4 50
W B Cooke	42	50	4 50
G L Shafter	97	50	4 50
F Marriott	44	25	2 25
F Marriott	381 to 385 10-ea	50	4 50
W H Cherry	71, 72, 74, 75 20-ea	80	7 20
W H Cherry	73, 76 10-ea	20	1 80
E R Highton	467	4265	383 85
E R Highton	281 to 284 100-ea	400	36 00
E R Highton	116, 117, 285, 286 292 to 298 50-ea	550	49 50
E R Highton	118 to 125, 299 to 300 25-ea	400	36 00
E R Highton	126 to 129, 299 to 135 20-ea	160	16 20
E R Highton	325 to 326 10 ea	40	3 60
J McM Shafter	96	25	2 25
C W Howard	99	25	2 25
H M Whitmore	393, 394 500-ea	1000	90 00
H M Whitmore	395, 396 100-ea	200	18 00
Geo Eidenmiller	100 to 104 50-ea	200	18 00
Geo Eidenmiller	104 to 106 20-ea	90	5 40
Geo Eidenmiller	107	5	45
Geo Eidenmiller	259	15	1 35
Jno Palmer	112, 113, 115 25-ea	75	6 75
J S Schuster	108	100	9 00
J S Schuster	109	20	1 80
J S Schuster	110	10	90
J S Schuster	111	5	45
Jno M Bryan	137	10	90
Jno M Bryan	155	15	1 35
Wing Sang	138	5	45
Ah Mon	139	6	54
R W Carter	140	10	90
P P Bird	315	5	45
H Forbes	316	5	45
Jno S mulding	317	5	45
Wm H Taylor	318	5	45
A P Stanford	333	1600	144 00
G J Boring	337	25	2 25
J P Phillips	338 to 341 25-ea	100	9 00
G Stancko	343	25	2 25
G Stancko	373	10	90
G Stancko	374	5	45
H F Teschemaker	352	800	72 00
James Blake	344	500	45 00
James Blake	345 to 349 100-ea	500	45 00
H F Teschemaker	353	800	72 00
Emily S Tewksbury	365	50	4 50
D Melarky	371	15	1 35
J B Cutter	372	5	45
George Green	375	5	45
Chas Carter	376	5	45
William Williams	377	5	45
H Monk	378	5	45
George French	379	5	45
B M Terrill	380	5	45
C F Fessenden	386	10	90
M H Fowler	387	100	9 00
D Lake	397	100	9 00
D Lake	388 to 392 100-ea	500	45 00
J D Hunt	411	49	4 41
J D Hunt	402 to 410 50-ea	450	40 50
J D Hunt	421 to 441 50-ea	1000	90 00
J D Hunt	451 to 460 100-ea	1000	90 00
J H Ryckman	412 to 421 50-ea	500	45 00
E W Councilman	442		55 00
C Tolman	443 to 447 20-ea	100	0 00
W J Forbes	448	10	90
W J Forbes	449	10	90
John Nash	462	75	6 75
J H Baker	463	50	4 50
George S Fisher	464	50	4 50
Mrs A M Hennoll	465	50	4 50
F Billings	470	1600	144 00
Thos Bell	471	1000	144 00
P N McKay	472	1600	144 00
H M Halo	473	800	72 00
H M Halo	474	800	72 00
W P Harrison	475	1600	144 00
S Heydenfeldt	121	1600	144 00
H McAllister	156, 157 10-ea	20	1 80
H McAllister	141 to 144 25-ea	100	9 00
H McAllister	233 to 238 5-ea	30	2 70
H McAllister	460	1450	130 50
Wo Chong	145	5	45
Han Two	146	5	45
H Land	147	1000	90 00
H Land	146	240	21 60
H Mohr	151	10	90
J & P Medan	153	8	72
Jno H Saunders	182	800	72 00
Jno H Saunders	183	800	72 00
R M Jessup	180 to 109 100-ea	1600	144 00
W Elias	251	10	90
H Pflueger	252	10	90
W Herwig	253	10	90
J Wolfson	254	45	4 05
A Clayburgh	255	5	45
Fanny Rosenberg	260	5	45
C Leitman	261	5	45
J Rosenholm	262	5	45
J Rosenholm	263	10	90
Caroline Bart	264	5	45
T Haaf	265	25	2 25
J H Van Reed	319, 336 100-ea	200	18 00
J H Van Reed	320	50	4 50
J H Van Reed	321	25	2 25
T Stevens	310	5	45
Chas Watson	311	5	45
Jos J Hall	313	10	90
Jos J Hall	314	15	1 35

And in accordance with law, and an order of the Board of Trustees, made on the second day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Messrs. Olney & Co.'s, No. 418 Montgomery street, San Francisco, Cal., on the twelfth day of July, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

S. T. KING, Secretary.

Office, 240 Montgomery Street, San Francisco. jc16

Hunsom Copper Mining Company.—Location in Del Norte county, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 29th day of May, 1866, an assessment of thirty (30) cents per share was levied upon the capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, S. S. SWEET, No. 609 Market street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 29th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 30th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. S. SWEET, Secretary.

Office, No. 6 9 Market street, San Francisco, Cal. jc2

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the fourth day of May, 1860, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
D Armstrong	196	5	$ 50
D Armstrong	208	5	50
Geo A Ball	123	5	50
A Mehlwitz	41	63	0 50
A Mehlwitz	350	150	15 00
William West	215	20	2 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of May, 1860, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of M. Dore & Co., 327 Montgomery street, San Francisco, on the fifth day of July, 1860, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

C. HEYWOOD, Secretary.

Office, 311 Market street, San Francisco, Cal. jc16

Leland Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin to the Secretary, at his office in San Francisco.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery street, San Francisco, Cal mi9

Lady of the Lake Gold and Silver Mining Company, San Francisco Mining District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 18th day of May, 1866, an assessment of twenty-five (25) cents per share was levied upon the capital stock of said Company, payable on the 19th day of May, 1866, in United States gold and silver coin, to the Secretary, at his office in San Francisco., Cal.

Any stock upon which said assessment shall remain unpaid on the 30th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

WM. HOLLIS, Secretary.

Office, 302 Montgomery Street, San Francisco, Cal. my19

Latrobe Tunnel and Mining Company.— Location of Works: Virginia City, Storey County, Nevada.

NOTICE.—The Annual Meeting of the Shareholders of the above-named Company, will be held on MONDAY, the second day of July next, 1866, at 3 o'clock P. M., at the office of the Company, S. W. corner Montgomery and California streets, San Francisco, for the election of Trustees to serve the ensuing year, and other business.

R. N. VAN BRUNT, Secretary.

Office, S. W. corner Montgomery and California streets, San Francisco, Cal. jc16

North American Tin Mining Company. Location of Works: Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, A. D. 1866, an assessment of forty cents per share was levied upon the capital stock of said Company, payable in gold coin of the United States, immediately, to the Secretary, at the office, at 535 Clay street, in the city of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 22d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

L. N. THORNE, Secretary.

Office, Room No. 7, at 535 Clay street, San Francisco, California. my26

POSTPONEMENT.—The day for deeming stock delinquent on the above assessment is hereby postponed until the 20th day of July, 1866, and the sale thereof until TUESDAY, the 31st day of July, 1866. By order of the Board of Trustees.

je23 I. N. THORNE, Secretary.

Nonpareil Gold Mining Company, Tuolumne County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ninth day of June, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable on the eleventh day of June, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, Merchant's Exchange Building, corner Washington and Battery streets, Room No. 6.

Any stock upon which said assessment shall remain unpaid on the ninth day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the thirty-first day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees

S. A. ELORIDGE, Secretary.

Office, Merchant's Exchange Building, corner Washington and Battery streets, San Francisco, Cal. je16

PRECIOUS STONES FROM MONTANA.—During the past season quite a number of valuable precious stones, petrifactions, quartz specimens, moss-agates, etc., have been sent to New York from Montana, to be cut for setting. L. C. Lee, who went home for a stock of the American Company's watches, etc., brought with him, in addition, a large number of garnets and agates, found there, and cut to the States; some of them are very beautiful and of good size.

North Star Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

All persons are hereby cautioned not to purchase or negotiate for the following described stock, sold this day, June 6th, 1866, for delinquent assessment No. 12, of twenty-five dollars ($25) per share:

In Name of	Certificate.	Shares.	Shares Sold.
John W Harker	280	6	6
John W Harker	455	6½	6½

As said stock will not be transferred on the books of the Company. By order of the Board of Trustees.

GOTTLIEB BEER, Secretary.

Office, 226 Front street, San Francisco. je9

Nuestra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of April, 1866, an assessment (No. 23) of one dollar per share was levied upon the capital stock of said Company, payable immediately, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, (in the Drug store, near Dupont,) or to the Treasurer, A. HEWELMANN, at his office, No. 637 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 1st day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, on Saturday, the 23d day of June, 1866, and unless payment shall be made before, will be sold on the 20th day of June, 1866, to pay the delinquent assessment together with costs of advertising and expenses of sale.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug store, near Dupont street,) San Francisco, Cal. ap28

POSTPONEMENT.—Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 1st day of June, 1866, it was resolved to postpone the publication of the Delinquent Stock till SATURDAY, the 30th day of June, 1866.

E. J. PFEIFFER, Secretary.

Office, 210 Post street, (Drug Store near Dupont street,) San Francisco, Cal. je2

Ophir of the Colorado Silver Mining Company, El Dorado Canon, Colorado District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of May, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, T. A. MUDGE, 528 Clay street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 26th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. A. MUDGE, Secretary.

Office, 528 Clay street, San Francisco. my26

Rippon Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the eighth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm DeGraff	9	5	$5 00
Wm DeCraff	10	8	8 00
Daniel Toy	23	30	30 00
Samuel Williams	24	10	10 00
Wm McGill	25	6	6 00
Chas Kather	26	10	10 00
Chas Kather	27	12	12 00
C E Cibbs	28	10	10 00
John Betts	29	10	10 00
Daniel Toy	30	20	20 00
Chas H Stockum	32	5	5 00
A W Eckell	33	10	10 00
J Simon	34	5	5 00
Isaac Marks	35	5	5 00
Thomas Martin	37	40	40 00
George Patterson	53	5	5 00
George Patterson	54	5	5 00
George Patterson	55	5	5 00
J S S Robinson	56	10	10 00
Thomas Cray	57	10	10 00
D E Sumnerton	58	5	5 00
Jacob Strubin	59	10	10 00
C Kerby	60	7	7 00
Jacob Jettee	61	12	12 00
Mrs Sarah Winnie	63	10	10 00
M Marks	67	5	5 00
Wm Rippon	not issued	250	250 00

And in accordance with law, and an order of the Board of Trustees, made on the eighth day of May, 1866, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the office of the Company, on the second day of July, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary.

Office, 338 Montgomery street, San Francisco, Cal. je10

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

Sapphire Quartz Mill and Mining Company. Location: Gold Hill, Storey County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 22d day of May, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately in United States gold coin, to the Secretary, at the office of the Company, Room No. 5, Lucas Turner & Co's Building, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 28th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the 17th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. KOENIG, Secretary.

Office, Lucas Turner & Co's Building, N. E. corner of Jackson and Montgomery streets, San Francisco, Cal. my26

Commercial Academy for Ladies & Gentlemen,

NO. 111 K STREET, SACRAMENTO, CALIFORNIA. Established in 1853, where students can acquire a thorough business education. Double Entry Book Keeping, Practical and Ornamental Penmanship and Drawing, Latin, French, the Common and Higher English Branches, taught on reasonable terms. Students from any part of the State can procure board and lodging in private families, near the Academy, at from $4 to $6 per week. For terms, address, MART TAYLOR, Principal; Miss SARAH J. WEIR, Associate Principal. 20v12

Simpson & Bosselle Mining Company. Mines located in Carson Valley District.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of April, 1860, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Andrews, Curtis	370	10	$10 00
Amstatz, C L	2?0	17	17 00
Amstatz, C L	206	5	5 00
Avres, J G	367	10	10 00
Allen, O H	369	10	10 00
Bonney, O Jr	371	50	50 00
Bonney, O Jr	372	23	23 00
Bonney, O Jr	373	10	10 00
Briggs, N C	378 and 387 5-ea	10	10 00
Blum, Isaac	192	5	5 00
Blum, Isaac	232	10	10 00
Burnell, R	207	10	10 00
Bedell, M B	222	5	5 00
Bedell, B N	223	10	10 00
Ball, T D	501	10	10 00
Chevallier, L F	167	5	5 00
Cheval ier, Margaret	174	3	3 00
Cagwin, H A	189	5	5 00
Crabtree, Eben	261	10	10 00
Curtis, Tyler	307	10	10 00
Conk, H	338	10	10 00
Crookite, John	375	10	10 00
Dole, Fred Jr	368	10	10 00
English, James	248	5	5 00
Echler, J A	275	10	10 00
Esty, M A	276	10	10 00
Felsenthal, P	128	5	5 00
Fulton, Jno	279	5	5 00
Grinage, F W B	153	5	5 00
Goff, C R	388	30	30 00
Goff, C P	690	5	5 00
Goff, Hannah J	278	5	5 00
Gould, T H	3:6	10	10 00
Hartwell, C H	148, 149, 150 5-ea	15	15 00
Holser, John	370	5	5 00
Hogle, C T	237	10	10 00
Harter, D	270	15	15 00
Harbine, L	264	10	10 00
Ivens, C H	299	10	10 00
Johnson, W A	393	5	5 00
Johnston, W J	336	10	10 00
Johnson, A R	466	10	10 00
Ledlie, Mary J	339	10	10 00
Ledlie, Mrs J	340	10	10 00
Ledlie, Arthur	342	5	5 00
Lamprnatt, Chas	360	20	20 00
Mitchell, D C	380	5	5 00
Murray, James	156	10	10 00
McKillican, D R	106	100	100 00
McKillican, D R	112	10	10 00
Mauk, F	202	10	10 00
Mauk, F	203	10	10 00
Moore, Charles	300	10	10 00
Nichols, John	19 and 20 50-ea	100	100 00
Nichols, John	25	25	25 00
Nichols, John	25, 26, 27 10 ea	30	30 00
Nichols, John	370	15	15 00
Newman, Simon	191	5	5 00
Nelson, J	301	10	10 00
Nelson, J	362	5	5 00
Organ, Thos J	206	5	5 00
Osborn ——	381	5	5 00
Payne, G G	182	25	25 00
Payne, G G	274	10	10 00
Parker, J W	262	20	20 00
Parker, J W	263 and 264 25-ea	50	50 00
Peltier, Andre	358	5	5 00
Reisch, J M	199	10	10 00
Reischlung, P	205	17	17 00
Reischlung, P	211 and 305 5-ea	10	10 00
Robinson, Samuel	212	10	10 00
Robinson, J C	386	25	25 00
Severance, H	301	10	10 00
Seeley, J	233	10	10 00
Spear, Asa	303	5	5 00
Stanley, J P		5	5 00
Stanley, J P	365	10	10 00
Smith, Argus	392	5	5 00
Smith, J T	334	5	5 00
Stiles, E B	363	25	25 00
Simpson, Edwin	382, 383, 384 5-ea	15	15 00
Simpson, Edwin	385	65	65 00
Simpson, Edwin	73	100	100 00
Simpson, Edwin	246	11	11 00
Trumble, P	377	5	5 00
Timson, J	234	5	5 00
Wright, Nellie B	173	5	5 00
Wolfer, C	395	5	5 00
Watkins, Jas T	359	10	10 00
Wooden, Wm	345, 346, 347, 348 349, 350, 351, 352 5-ea	40	40 00
Wooden, Wm	353	10	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 20th day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Maurice Dore & Co's salesroom, 327 Montgomery street, San Francisco, Cal., on the 29th day of June, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

T. L. BIBBINS, Secretary.

Office, 205 Montgomery street, San Francisco. je9

Union Mattole Oil Company. Location of Works: Humboldt County, State of California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the fourth (4th) day of June, 1866, an assessment of five dollars ($5) per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Treasurer, W. C. PARKER, No. 608 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the sixteenth (16th) day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the twentieth (20th) day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. WINTER, Secretary.

Office, No. 606 Montgomery Street. jy9

WM. H. KEITH & CO.,

Chemists and Apothecaries,

PROPRIETORS AND MANUFACTURERS OF

WM. H. KEITH & CO'S WINE OF PEPSINE, OR RENNET WINE, a new and efficacious remedy for Dyspepsia, Castralcia, etc. WM. H. KEITH & CO'S GLUCOLEIN, a new and valuable commond of Cod Liver Oil, put up in glass jars. WM. H KEITH & CO'S LEMON APERIENT, or Purgative Lemonade, an agreeable, cooting and active purgative, or mild laxative, as required. WM. H. KEITH & CO'S SAPONACEOUS TOOTH POWDER. DEVINE'S PITCH LOZENGES, for the cure of coughs and colds. Wm. H. Keith & Co's Florentine Tooth Wash. Wm. H. Keith & Co's Cratuula Effervescent Citrate of Magnesia. Wm. H. Keith & Co's Rosemary and Castor Oil Hair Invigorator.

WM. H. KEITH & Co. being in frequent communication with Eastern and European markets, are continually renewing their stock of Pure Drugs, Rare Chemicals, Fancy Goods, and Toilet Articles, Perfumes, etc. They also give special attention to replenishing ship medicine chests.

Also, just received, a large and well-selected invoice of HERNSTEIN'S CELEBRATED INSTRUMENTS, consisting in part of Amputating and Obstetric sets, Pocket Cases, etc.

Physicians and others at a distance ordering goods from us, can depend upon having their orders filled with the same regard to QUALITY and PRICE, as though obtained in person, and we give particular attention to packing and forwarding the same.

WM. H. KEITH CO.,

Apothecaries' Hall, No. 521 Montgomery street, 15v12ly Between Clay and Commercial, San Francisco.

THE EXCELSIOR
GRINDER AND AMALGAMATOR.

In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 118 and 132.

That is, the respective mullers heing of the same diameter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan one hundred and eighteen tons, and the Conical Pan one hundred and thirty-two tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has heen attained in no other than that of the Tractory form—nor can it he.

Another property of excellence in this machine is that the metal or substance to he amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having heen burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

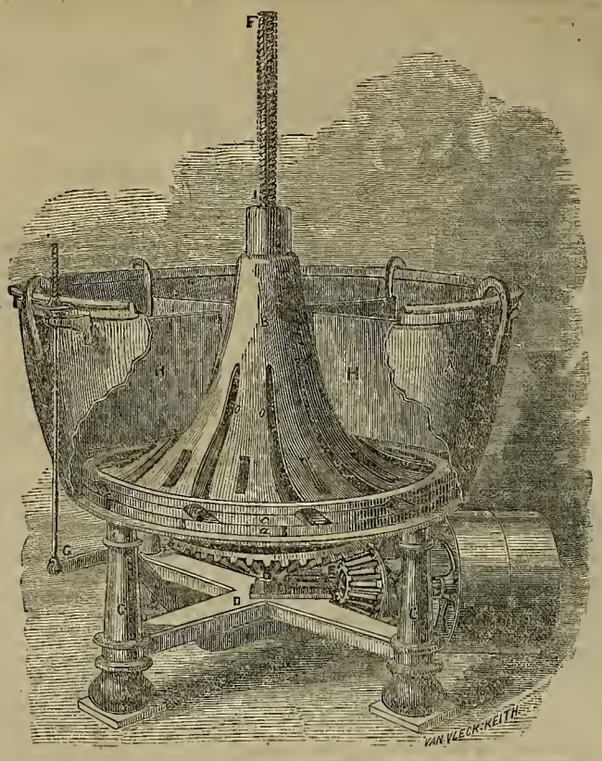
As a whole, it is far superior to any other pan in nse.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.



Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.

15v12-3m

BRUCKNER'S
Mechanical Roasting Furnace

AWARDED A

PREMIUM SILVER MEDAL

—BY THE—

The Mechanics' Institute.

THESE FURNACES ARE NOW MANUFACTURED after an improved mode of construction, which

GREATLY SIMPLIFIES THEIR OPERATION,

and afford a much larger oxydizing surface to the action of heat and atmosphere.

The weight of a Furnace nine feet long by four feet in diameter does not exceed one ton.

THE IMPROVED FURNACE

will soon be more fully described and illustrated in the columns of the MINING AND SCIENTIFIC PRESS.

Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
19v12 416 Market street, San Francisco.

Machinery.

SAVE YOUR MONEY AND BUY,

For $100!

HUNTER'S

Premium Concentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

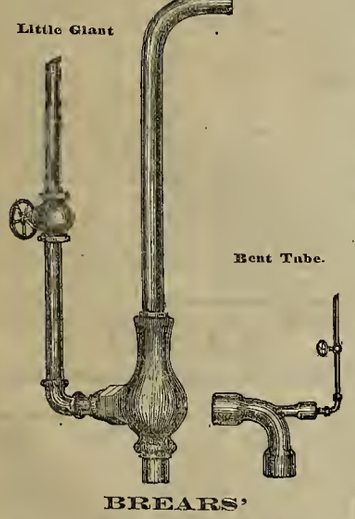
THE ABOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 135 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent. more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 118 Washington street, below Davis, where ALBERT JACOBS will fill their orders promptly.

ANDREW HUNTER,
17v12-tf **Inventor.**

TO PLACER MINERS AND OTHERS.



BREARS'

Improved Steam Syphons.

STATE AND COUNTY RIGHTS FOR SALE BY THE PATENTEE.

No. 144 Center street, New York.

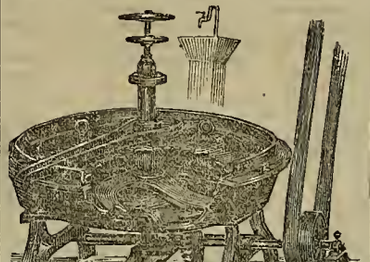
Information will be sent or given to parties upon application, by letter or otherwise, to or by the patentee, or at W. T. GARRATT'S Brass and Bell Foundry, corner of Market and First Streets San Francisco, where the Pumps are on exhibition and for sale.

LIST OF PRICES:

Little Giant.		Bent Tube.	
Brass	$65	Iron, 4 in dl	$100
		" 3 in. dl	75
		" 2 in. dl	50
		" 1½ in. dl	35
		Brass, 1 in. dl	25

13-v12

BAUX & GUIOD S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crail's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugb & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,

Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6df

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self-acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this Safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,
Virginia City, Nevada,
15v11tf Through Wells, Fargo & Co's Express.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

Cotton-Filled Gum Belting,

3, 4, and 5-Ply,

FROM 4 TO 22-INCH,

IN LIBERAL SUPPLY.

FOR SALE BY

GILLIG, MOTT & CO.,

Corner C and Taylor streets,

VIRGINIA, NEVADA,

—AND—

Nos. 148 AND 150 J STREET,

19v12 tf SACRAMENTO, CALIFORNIA.

Pacific Forge Company.

FORGING AND IRON WORK.

THE PACIFIC FORGE COMPANY HAVE JUST ERECTed, in this city, on Fourteenth street, near the machine shop of the San Jose Railroad, a large establishment for the purpose of forging and working in wrought iron. Our hammer is the largest upon this coast, and we are prepared to manufacture, at short notice, all kinds of heavy forgings, car axles, shafts, steamboat cranks, piston-rods, wagon axles, and other similar work. This is the first general shop of the kind erected in this State, and we solicit the patronage of the public. All orders executed at reasonable rates, and with promptness and satisfaction. 19v12-3m

The Hansbrow Pumps
ARE WARRANTED THE BEST.

FIFTEEN KINDS AND SIZES,
Adapted for FARM,
Mill and Mining Purposes.
Fitted for
HAND, WIND, HORSE, WATER AND STEAM POWER.

For sale in every city and town on the Pacific Coast.

LOCKE & MONTAGUE, Agents,
112 and 114 Battery Street, San Francisco.
☞Send for Illustrated Catalogue. 23v12-2m

Hungerford's Concentrator!

—FOR—

SAVING GOLD, QUICKSILVER,

—AND—

SULPHURETS.

MORGAN HUNGERFORD HAS MADE IMPORTANT improvements on the original HUNGERFORD & PRATER CONCENTRATOR, whereby the construction of the machine is simplified, and its operations rendered more complete and easy. It is made more effective by being self-discharging, and delivering the sulphurets more free from sand and dirt.

The Machine can be seen in operation at the Miners' Foundry, 21 First street. Call and examine for yourselves before accepting the opinions of persons more or less interested in other machinery.

Hours from 10 to 12 M. and 1 to 3 P. M.

It should be borne in mind that Mr. HUNGERFORD is the original builder and maker of the celebrated PRATER CONCENTRATOR, and his name should be sufficient guarantee to warrant the public in examining his new machine before purchasing elsewhere.

The new Concentrator will soon be illustrated and described in the MINING AND SCIENTIFIC PRESS.

Address: M. HUNGERFORD,
22v12-tf Miners' Foundry, San Francisco.

BLAKE'S
QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENGLAND, FRANCE,
— AND —
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned.

Address,

BLAKE & TYLER,

Box 2077 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.

4v10

Rubber Belting,
WITH COTTON FILLING.

A FULL ASSORTMENT OF 3 AND 4-PLY, NOW IN store and for sale by

THOMAS H. SELBY & CO.,
22v12 3m Nos. **116** and **118** California street

Steam Pumps,

FOR DRAINING MINES OR ELEVATING WATER TO ANY HIGHT.

PICKERING'S GOVERNORS

For Steam Engines.

Gifford's Injectors,

For Feeding Boilers.

STODDART'S IRON WORKS,

114 Beale Street, San Francisco.

23v12 3m

OIL! OIL!! OIL!!!

—OUR—

MACHINERY OIL

IS SUPERIOR TO ANY IN USE, AND IS WARRANTED NOT TO GUM.

Dell, Cranna & Co.,

511 1-2 and 513 Front street, San Francisco

IMPORTERS OF

COAL OILS AND LAMP STOCK.

21v12-3m9p

FOR SALE
A STEAM ENGINE!

10-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

Steam Engines for Sale Low.

DIRECT FROM EAGLE WORKS, NEW YORK, EMbracing all Modern Improvements, suitable for Mining, Milling, or other purposes. Will be sold at Manufacturers' rates and charges.

Apply to **A. E. CRANE,**
16v12-3m 310 Washington Street, up stairs.

THE PRESS is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—Nye County News.

CURIOUS ORIENTAL CUSTOMS.—There are many traits of character and customs in which the Arabs and Turks are our antipodes. They shave the head but not the chin, and we the reverse. With us the uncovering of the head in the presence of another is a mark of respect; with them a mark of disrespect. When they go into a place of worship they keep on their hat and take off the shoes and slippers; we do the opposite. They mount on the right side of a horse, and we on the left. They write from right to left, and we from left to right. We show our good breeding by taking the outside when passing persons on the street; they by passing nearest to the wall. They do the honors of the table by serving themselves first; we serve ourselves last. If a friend inquires after your wife you regard it as a compliment; to inquire after theirs is an insult. Their mourning dress is white; ours black. They finish their wooden houses from the top downward; and we from the foundation up. The men wear frocks and the women pantaloons. We wash the hands by dipping them in water; they by having water poured upon them.—*Bausman's Sinai and Zion.*

PRODUCTS OF LATROBE.—A correspondent, writing from Latrobe to the Mountain *Democrat*, says: There has been over three hundred tons of clay and eight hundred tons of marble shipped from that place during the past year, and the present year will undoubtedly quadruple these figures.

DR. FRANKLIN, speaking of education, says: "If a man empties his purse into his head, no man can take it from him. An investment in knowledge always pays the best interest."

ONE of the finest qualities in a human being is that nice sense of delicacy which renders it impossible for him ever to become an intruder or a bore.

J. B. CONE, BUSINESS AGENCY.—Makes private sales of Property and Business Places of every description, in the city and throughout the State; procures partners with large and small amounts of money; negotiates sales o mining property, and does a General Agency Business. Patronage solicited by mail, express, or by personal application at the office, 402 Montgomery Street, San Francisco, California. 23v11tf

Economy in Advertising.—The MINING AND SCIENTIFIC PRESS is the best and most ECONOMICAL mining advertising medium in this city. Our terms are less than ONE HALF the rates now charged by daily newspapers, and the mining community are beginning to appreciate our reasonable rates of advertising. The PRESS contains, proportionally, a larger amount of mining advertising than any other paper on the Pacific coast. Its character renders it the proper journal for the concentration of mining patronage.

FLORENCE
SEWING MACHINES!

COPY OF THE REPORT OF THE COMMITTEE OF AWARDS AT THE FAIR OF THE

AMERICAN INSTITUTE,

New York, 1865,

—TO THE—

Florence Sewing Machine Company,

FOR THE BEST FAMILY SEWING MACHINE.

HIGHEST PREMIUM—GOLD MEDAL!

REASONS:

1st.—Its simplicity and great range of work.

2d.—The Reversible Feed Motion.

3d.—The perfect finish and substantial manner in which the machine is made.

4th.—The rapidity of its working and the quality of the work done.

5th.—The Self-adjusting Tension.

The "FLORENCE" was awarded the First and Highest Premium at the State Fair of California, the only Fair on the Pacific Coast at which any two double-thread Sewing Machines were exhibited in competition in 1865.

The "FLORENCE" received the only premium awarded by the Mechanics' Institute of San Francisco, in 1864 and 1865, to any Sewing Machine, Sewing Machine Company, or Agent. The claim of a competitor to a medal is without any foundation whatever.

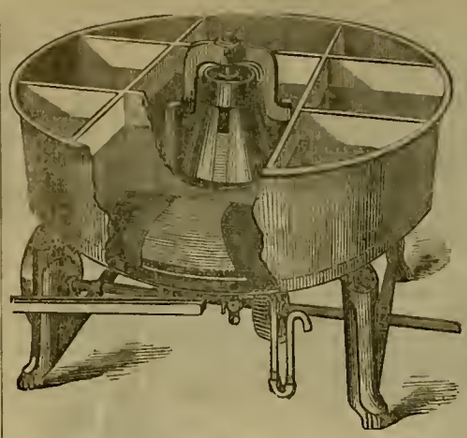
Wherever the "FLORENCE" has been brought in competition with other Sewing Machines, it has always been declared the best. It is the most simple, the most substantial, the most efficient, and its use is easily learned. Every Machine sold is guaranteed in the full sense of the word.

Send for Circulars and Samples of Work.

SAMUEL HILL, General Agent,
20v12-14w 111 Montgomery street, San Francisco.

Knox's Improved Patent Amalgamator and Separator,

With Palmer's Patent Steam Chamber or Die.



THIS CUT REPRESENTS AN AMALgamator and Separator that has stood the test of FOUR YEARS' practical working in the gold mines of California, and for nearly the same time in the silver mines of Nevada, having been introduced into the first steam mills built in the then Territory, since which time they have been successfully working against all competition.

The great advantages these Amalgamators have over any others, are—

1st. **Much less Cost.**

2d. They do not "flour" the mercury, and collect any that may have been "sickened" in the battery or grinders.

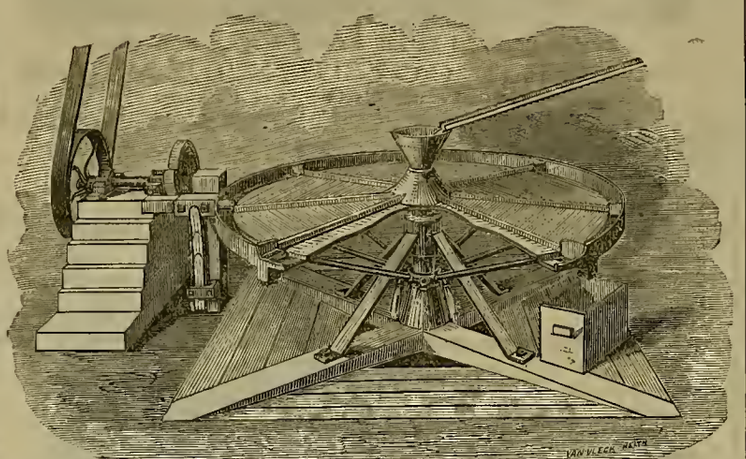
3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

4th. The gate in the cone, through which the pulp is discharged, from the top, and where there is the least motion, almost precluding the possibility of any granulated mercury or fine gold escaping.

There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of ISRAEL W. KNOX, OR W. A. PALMER, Inventors,
14v13-pl2q At the Golden State Iron Works, No. 19 First street, San Francisco.

VARNEY'S CONCENTRATOR,



With a disk 4 1-2 feet in diameter—total weight of Machine 350 pounds.

Is driven by one-eighth of a horse-power, and will concentrate eight tons of ore per day, and make the sulphuro t clean. Larger ones do work in proportion to size.

☞ IT CAN BE SEEN IN OPERATION AT THE PACIFIC IRON WORKS, SAN FRANCISCO. ☜
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Has been approved by the United States Board of Ordnance, and has so satisfactorily met the requirements of the Government, not only in the field, but in the official tests and examinations made by prominent officers of the Ordnance Department, that it stands at once the most popular, serviceable and approved arm of the kind in use. Upwards of 125,000 have been supplied to the Government within the past four years, for the land and naval service, furnishing ample evidence of the estimation in which the arms are held.

Simple and symmetrical in its entire construction, securely strong, of most modern improvement in mechanism and material; its unequaled range and penetration, together with its durability, are points in its favor now well known, and which challenge a comparison with any other pistol of the kind made in this country or in Europe.

The superior strength and capacity of the arm for constant and long use is apparent from the fact that the entire frame is constructed of a single piece of metal, thus preventing the extension of some portions of the frame, from the effect of firing—a serious defect in many pistols—in which the frame is composed of two or more parts.

The frame of the Remington Revolver furnishing a TOP STRAP or support above the cylinder, served to protect the base pin (on which the cylinder revolves) from any undue strain to which it would otherwise be subjected, and which would immediately render the line of fire from the cylinder to the barrel imperfect, thus destroying force and accuracy.

Another advantageous feature of the arm is the means afforded for the instantaneous removal of the cylinder from the frame. This not only facilitates the cleaning of the pistol, but by the quick adjustment of the cylinder, one pistol can be made as effectual as two—and, considering the difference of weight, it is far preferable—by simply possessing a spare cylinder loaded and capped to instantly replace the exhausted one.

The above is a general summary of the points of peculiar merit in the Remington Revolver which a trial of the arm is only needed to attest. For sale at Manufacturers' rates, by

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VARNEY'S
PATENT AMALGAMATOR.

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For rapidly pulverizing and amalgamating ores, they have no equal. No effort has been, or will be, spared to have them constructed in the most perfect manner, and of the great number now in operation, not one has ever required repairs. The constant and increasing demand for them is sufficient evidence of their merits.

They are constructed so as to apply steam directly into the pulp, or with steam bottoms, as desired.

This Amalgamator Operates as Follows:

The pan being filled, the motion of the muller forces the pulp to the center, where it is drawn down through the aperture and between the grinding surfaces. Thence it is thrown to the periphery into the quicksilver. The curved plates again draw it to the center, where it passes down, and to the circumference as before. Thus it is constantly passing in a regular flow between the grinding surfaces and into the quicksilver, until the ore is reduced to an impalpable powder, and the metal amalgamated.

Setters made on the same principle excel all others.—They bring the pulp so constantly and perfectly in contact with quicksilver, that the particles are rapidly and completely absorbed.

Mill men are invited to examine these pans and setters for themselves, at the PACIFIC FOUNDRY,
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For railroads, cars, or wagons; Railroad Jacks for engines and cars; Track Jacks for leveling, with which three men, with a pair of these Jacks, can level more track in a day than twelve men working in the ordinary manner; also, Track Jacks, for relieving the axle of pressure to replace the brass. These Jacks are now in general use in the Eastern States, and give entire satisfaction. Also, Wagon and Track Jacks of the most superior make and kind. For sale by KNAPP & GRANT,
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CATTLE,
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GROCERS'

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TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News

BULLION FIGURES FROM GOLD HILL, NEVADA. The Gold Hill *News* says that during the week ending June 2d, there was shipped from the Gold Hill express office 4,272 pounds of bullion, worth $144,562.27.

During the month of May, 1865, there was shipped from the same office, bullion assaying $608,296.70. So that during the year there will be between seven and eight millions worth of the "rale stuff" extracted from the Gold Hill mines, and sent to the mint. Shipments from elsewhere in the county may make Storey's annual yield amount to the round sum of ten millions. But this simple statement places Gold Hill ahead of all mining sections on the little American district that reaches from the Sierra Nevada to the Mississippi. And, as a prominent superintendent remarked to us this morning, "Give us a railroad hence to the Truckee, and we will turn out five times the amount in less than a year after the trains commence making the through trips."

IDAHO,—The *Flag* gives an extract from a private letter from Ruby City, dated May 27th. We quote:

"I have no advice to offer to those who contemplate leaving California and coming to this section of country. If I knew what was best, I would; but I do not. The mining season is short here, and the winters intensely cold and dreary. California climate will be better appreciated and more highly prized by a person who has passed a year here. The rock may be richer here, but the expenses of reducing it is much greater than in California."

PATENT BUSINESS.

We have lately associated with us in the Patent and Mechanical Department of the MINING AND SCIENTIFIC PRESS, a gentleman of superior ability and attainments, who has arrived direct from the leading patent agency in New York City, and having a faithful and reliable associate in Washington City, we are now better than ever before prepared to secure the claims of our applicants, in a careful, prompt and efficient manner. DEWEY & CO.,

San Francisco, June, 1866. Patent Solicitors.

Mechanical Drawings.

Persons wishing Mechanical Drawings can obtain the services of competent draughtsmen, by applying to this office. je23

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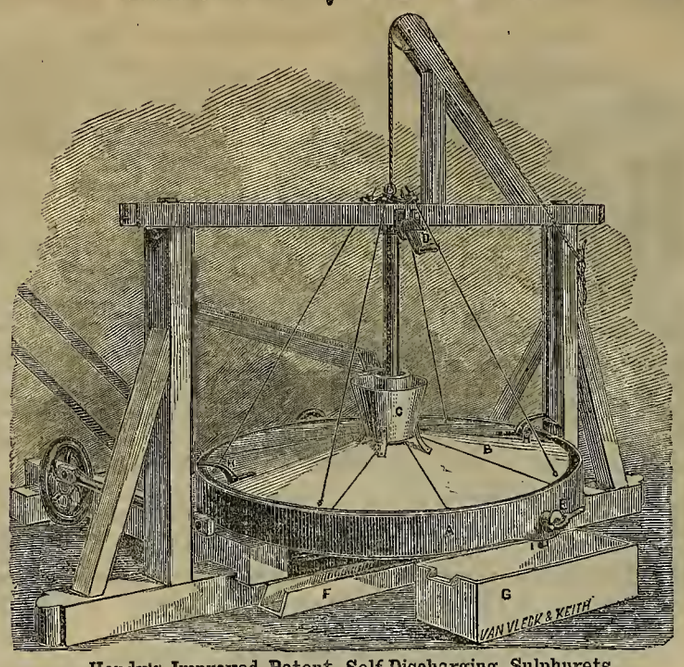
NOTICE TO QUARTZ MINERS.



Hendy's Improved Patent Self-Discharging Sulphurets

PRATER CONCENTRATOR

Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adapted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " "
U. S. REESE RIVER MILL, Austin, "
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., "
OPHIR G. & S. M. CO., Newcastle, Placer County.
CONEY MILL, Jackson, Amador County.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.
CARROL & ASPINWALL MILL, Reese River, Nevada.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:

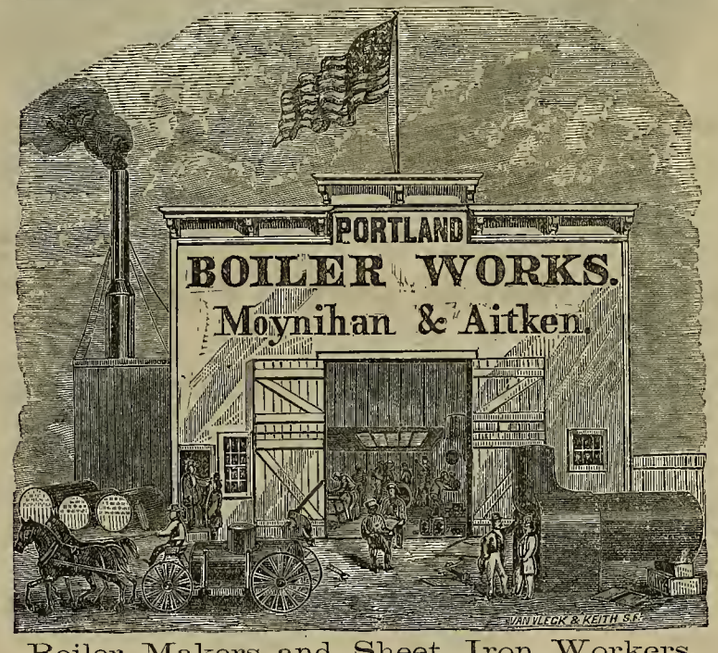
One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
Eight Concentrators for the Benton Mill, Bear Valley, Mariposa Co; ordered by Messrs Dodge & Bro, San Francisco.

They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.

☞ For explanation or the above engraving, and other particulars, send for a Circular.

JOSHUA HENDY,

8v12tf No. 402 Montgomery street, Room 3, 4th floor.



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(Late Assistant Examiner in the U. S. Patent Office,)

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Compiled by H. B. CONGDON.

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Mining and Scientific Press.

A Journal of Useful Arts, Science, and Mining and Mechanical Progress.

DEWEY & CO., PUBLISHERS And Patent Solicitors. | SAN FRANCISCO, SATURDAY, JUNE 30, 1866. | VOLUME XII. Number 26.

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MINING SHAREHOLDERS' DIRECTORY,

[Compiled for every issue, from advertisements in the Mining and Scientific Press and other San Francisco Journals].

Comprising the Names of Companies, District or County of Location; Amount of Assessment; Date of Meeting; Date of Delinquent Sale; and Amount and Time of Payment of Dividends.

NAME AND LOCATION.	AM'T OF ASSESSMENT	DAY DELINQUENT.	DAY OF SALE
Assurance M. Co		Annual Meeting July 9*	
Arizona Copper Co., Arizona Ter., 40c		July 7	July 24*
Arbitrios, Mexico, $1 50		July 12	Aug 13*
Alpha, Gold Hill, $50		May 25	June 25
Alameda Coal M Co, $2		June 27	July 21
Big Blue Lead G. & S. M. Co., Tulare co.,		Ann. Meet. July 19*	
Boston Copper, 50c		June 22	July 18*
Blue Ledge G. & S. M. Co., El Dorado co., $1		July 14	July 31
Cosala S M Co., Sinaloa, Mex., $1		June 20	July 17*
Crocket Con., Esmeralda co, $1		June 23	July 10*
Capitola, Santa Clara co., 10c		June 12	July 2*
Capitola, 10c		June 12	July 2*
Colc. Silver, $1		June 11	July 5
Confidence S M Co., Storey co., Nev., $25		July 10	July 31
Crown Point, dividend, $30 ft		Payable June 15	
Chollar-Potosi M. Co		Annual Meeting July 9	
Diana G & S M Co., Lander co, Nev., $5		July 20	Aug 10*
Dios Padre, Alamos, Mex., $4		June 5	June 23*
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Eagle, Austin, Nev., $1		June 16	July 6*
Evoca Cons. Cop., Del Norte co., 25c		June 6	July 1*
Franco-Americana S. M. Co., L. C., $1		June 19	July 10
Geo. Washington G. & S. M. Co., Alp. co.	$1.50	July 23	Aug 13*
Gold Hill Tunneling Co		Annual Meeting July 21*	
Geo. Washington, Alpine co.,	$1.00	June 9	June 26*
Great Basin, Humboldt co., Nev., 9c		June 12	July 2*
Gold Hill, Storey co., Nev., $1		June 15	July 12*
Gould & Curry, dividend $80 ft		Payable June 8	
Humboldt Canal Co		Annual Meeting July 19*	
Hanscom Copper, 30c		June 26	July 16*
Hale & Norcross, dividend $50 ft		Payable June 15	
Imperial S. M. Co		Annual Meeting June 26	
Imperial G. & S. M. Co., dividend $10 sh		Payable May 10	
Ione Q. M. Co., Nev. co		Annual Meeting July 9	
Keystone M Co., Calaveras co., $10		June 23	July 16
Latrobe T. & M. Co., Storey Co., Nev.,		Annual Meeting July 2*	
Leland, Arizona, 25c		June 30	July 16*
Lady of the Lake, Arizona, 25c		June 30	July 16*
Lady Bell, Low Divide, Cal		June 16	July 5*
Lady Bryan, $1		June 30	July 16
Leland, Arizona		Annual Meeting July 2	
Lady of the Lake, Arizona		Annual Meeting July 2	
Mina Rica de las Flores, $1		June 19	July 16*
Morning Star G. & S. M. Co., Alpine Dis., $1		July 28	Aug 8
Melones and Stanislaus G. S. & C. M. Co.,		Ann. Meet. July 7	
Nuestra Sra. de Guadelupe Co., Mex., $1		July 31	Aug 13*
Nonpareil G. M. Co., Tuolumne co., $1		July 9	July 31*
North American Tin, Durango, Mex., 40c		July 20	July 31*
Ophir of the Colorado, Arizona, 25c		June 26	July 16*
Old Colony, Austin, Nev., $3		June 18	July 9*
Overman S. M. Co., Storey co., Nev		Ann. Meeting July 12	
Peninsula M. Co., San Antonia Dis., $10		Aug 3	Aug 15
Patrochula and Dolores S M Co., M., $1.25		July 21	Aug 16
Ripon, Alpine co., Cal., $1		June 11	June 26*
Refugio M. Co., Mex., $5		July 16	Aug 10
Rogers & M. Co., Storey Co., Nev., $2		July 12	July 28
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Simpson & Bosselle, Carson Valley, $1		June 9	June 29*
Salambo Copper, Tuolumne co., $1		July 10	July 31
Sierra S. M. Co., Douglas co, Nev., $1		July 26	Aug 15
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Triunfo G. & S. M. Co., L. C., $1		July 12	July 25
Triunfo G. & S. M. Co., L. C., $3		July 12	July 25
Tellurium G. & S. M. Co., Am. co., $2.50		July 12	Aug 2
Tecumseh G. S. & C. M. Co		Annual Meeting July 19	
Union Mattole Oil co., Humboldt co., $5		July 16	Aug 20*
Ventana G. & S. M. Co., Mex. $2.75		June 19	July 10
Yankee Blade, $25		June 18	July 9*
Yellow Jacket S. M. Co., Gold Hill, Nev		Ann. Meet. July 9	

*Those marked with an asterisk (*) are advertised in this journal.

Change in Prices.

Single Copies of the Mining and Scientific Press will hereafter be sold at FIFTEEN (15) CENTS. The rates of Yearly Subscriptions remain as heretofore—$5 per annum. The price to News Agents will be advanced 1¾ cents per copy. Agents in the Interior supplied. June 30, 1866.

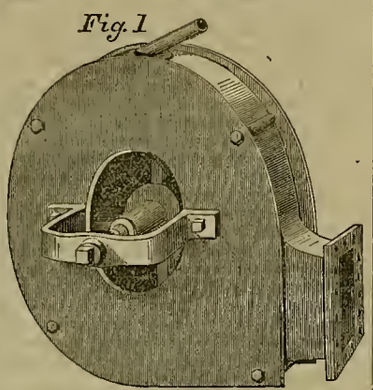
New Mining Law.—Private advices from Washington state that there is a strong probability that the Mining Bill, which Mr. Conness has offered as a substitute for Mr. Sherman's bill, will probably become a law. The interest which thus attaches to this bill has induced us to give it in full in our columns today.

RIDER'S PATENT STEAM BLOWER.

We give annexed a representation of this new blower, which was patented in January last, by Alexander K. Rider, of Hydeville, Vt., and first illustrated in the *American Artisan* of Feb. 21, 1866. This, although constructed after the manner of the ordinary blowers, is quite different in its principle and mode of action. It is driven by the direct action of a jet of steam, which is also brought in contact with the fuel in connection with the volume of air it carries along with it.

The steam is admitted through the pipe, which is seen entering the blower upon its

Fig. 1



upper side, and is impinged upon the blades or fans which may be seen through the opening in the centre of the figure. The air is also drawn into the case through the same central opening, and carried round with the steam and discharged at the outlet as usual, as shown at the right of the base of the figure.

It is claimed, that by using the steam in this manner the quantity employed is no greater than though it was applied in the ordinary manner of driving the machine; while, by thus forcing it directly into the fire in connection with the air, it produces a beneficial influence in increasing the effective heat of the fuel, and in preventing clinkers. It is also claimed that this method has the advantage of forcing into the furnace more air than the blower could do were the steam applied to driving the blower by the use of a pulley. Several jets may be used for large blowers; and exhaust steam may be advantageously applied, either alone or mixed with live steam direct from the boiler. The invention appears to be well worth the attention of mechanics.

Another Curious Experiment.—To the various and interesting illustrations of capillary attraction lately given in the Press, allow me to add another:

Take as much loose dry cotton as you dare press into a small tumbler or wine glass, and lay it by itself. After carefully cleansing and drying the edge of the glass, fill it heaping-full of alcohol. Now with a careful hand you may, by degrees, add the cotton to the alcohol, till the whole is again put in the same glass, without causing a single drop of the alcohol to overflow. Prof. Jeioh Arrh.

Peterson's New Crusher.—Mr. Peterson, of the firm of Hepburn & Peterson, has invented a new rock crusher, which we think will be satisfactorily heard from in due time.

A SILVER MOUNTAIN MINE.

No claim in Silver Mountain mining district seems to have commanded more attention in the past, or holds out prospects of a more hopeful future, than the George Washington. This was among the earliest of the claims located in that district, having been recorded on the 16th of June, 1861, and embraces an extent of 2,750 feet. A large amount of work has been done in the way of developing the claim, and its managers now feel fully warranted in taking the preliminary steps toward preparations for reducing the ore, which the Superintendent thinks he will soon be able to obtain in quantity sufficient to keep a small mill running.

The mine has been opened, first by a surface tunnel, cutting the vein at a depth of about 40 feet; afterwards by a shaft 71 feet, which was subsequently continued down on the vein to a depth of 110 feet. From this point a drift was run upon the vein 45 feet, which is said to develop a well defined lode and good ore; but just there a large influx of water compelled a temporary abandonment of the work, and a tunnel was started to cut the vein at a depth of about three hundred feet. This tunnel, which is supposed to be within 30 or 50 feet of the vein, with the work still going on, has already been connected with the old workings by an up shaft through which they are drained.

Assays from various parts of the vein have been made, from time to time, which indicate a good mine; and a few weeks since Mr. Charles Uznay, an assayer of this city, was appointed to visit the same for the purpose of examining and reporting upon its value. His report is highly flattering, and upon the strength of the same, arrangements have been made for leasing the Whiteside's mill, near by the mine, and a small assessment has been levied to provide funds for starting it up, and building a furnace for roasting the ores.

It is seldom that we have seen better working ore than the specimens which have from time to time been sent down from this mine. Mr. Uznay made numerous assays to satisfy himself with regard to the value of the ore, certificates of which we have examined. We notice ore from the upper tunnel giving $75.81 in silver, and $12.59 in gold, equal to $88.36 per ton. Another from the bottom of shaft, some 70 feet lower, gives silver $423.30, gold $37.66, equal to $460.96 per ton. A sample of decomposed or disintegrated rock, considerable quantities of which he reports in the mine, yielded $200.91 in gold, and $56.86 in silver, or $257.77 per ton. Mr. Uznay and Mr. W. D. Root, the Secretary, will soon go up to the mine and commence active prepartions for milling. Mr. Uznay thinks the first lot of 50 tons of selected rock will yield three to five thousand dollars. We hope his anticipations will be fully realized, and that the George Washington will soon be making its monthly shipments of bullion to this city.

The affairs of the company seem to be efficiently managed under the charge of Mr. Root, as Secretary. In looking over the books, we were particularly struck with a new form of Stock Ledger and Transfer Journal, which have been devised by Mr. A. G. Wood, of this city, and which are employed by Mr. Root. To our mind they certainly present a decided advantage over the ordinary forms of such books. The books and papers of this company are securely kept in a substantial safe, and the Secretary showed us a package which he said contained the original transfers to the company, all of which he has had duly recorded. He expects they will soon represent a large and valuable dividend paying property. We hope they may.

The Grain Crop of 1866 bids fair to far exceed any previous crop on this coast. It has been estimated that the yield of wheat and barley will exceed the demand for home consumption by at least 300,000 tons. The excess of last year was only about 13,000 tons; but it should be recollected that came in upon an exhausted market, while the present crop will be received upon a full one. The fear is beginning to be expressed, that sufficient shipping cannot be obtained on this coast, during the next six or eight months, to take away the surplus of our grain crop to where it can find a market. Last year, 50,000 tons of shipping left this port in ballast to load elsewhere for a return market. This year, all that surplus of shipping will find ready business at our own wharves, and we shall want still 250,000 tons more. Where will it come from, and what will our grain growers do without it? However, when the demand for shipping here becomes fully known abroad, and time has elapsed for such shipping to reach here, our wharves will doubtless be crowded with the needed fleet, and our citizens will one and all realize and feel the added impulse which such a traffic will impart to business. We may reasonably look for a much livelier time than usual in San Francisco the coming fall and winter.

A Scientific Miracle.—Professor Doremus recently delivered a lecture in New York, in which several illustrations explanatory of the constitution of gun cotton were described. He showed that linen as well as cotton, or indeed any other cellulose vegetable, could be used for this purpose. The lecturer once placed a linen handkerchief in an explosive condition, and then threw it into the wash. His servant girl washed, dried, and sprinkled it ready for ironing, without being aware of its character. The moment she placed the hot iron upon it, the handkerchief vanished into thin air, much, of course, to the astonishment of Bridget. Had such a thing occurred before the principles of science were so generally understood as they now are, it would have been attributed to supernatural agency. The mysteries of science are wonderful, indeed.

New Calendar Clock.—Mr. W. J. Eghert, has placed in our office one of Horton's Patent Calendar Clocks, which appears to be just the thing for a well regulated counting-house, office or saloon. It has two dials, the first being the same as an ordinary clock; the second has but one point, and shows the day of the week, the month and day of the month. It is arranged to mark the days in leap years with equal regularity. Parties can examine the instrument at our office. Mr. Eghert arrived by the last steamer, and can be found at 631 Washington street.

Communications.

In this Department we invite the free discussion of all proper subjects—correspondents alone being responsible for the ideas and theories they advance.

[Written for the Mining and Scientific Press.]

Source of the Electric Current in the Voltaic Battery.

BY EDWARD PIQUE.

Whenever two different metals, for instance, copper and zinc, are immersed in a fluid capable of conducting electricity, and the two metals touch each other, either within or without the fluid, an *electric current* will at once be established, and a *chemical decomposition* of the fluid will take place at the same time, in such a way that one of the constituents of the fluid, which necessarily must be a compound body, will be attracted by one metal, and the other constituent by the other metal. If these metals possess sufficient affinity for the constituents of the fluid, they will form a connection with them; in the contrary case, the separated elements of the compound solution will be eliminated.

If these effects do not appear by using one pair of different metallic plates, they are sure to take place by using a number of them, and connecting them in the proper way, whereof the explanation can be found in any treatise on electro-metallurgy.

To make this better understood, let us connect about ten pairs of copper and zinc plates, in the manner generally adopted by any electrician, with a piece of platinum attached to each end of the battery. If we dip these two pieces of platinum in water, slightly acidulated by sulphuric acid, the water will be decomposed into its elements, the oxygen will rise in bubbles on the positive platinum—that is the one attached to the last plate of copper—and the hydrogen on the negative platinum, which is attached to the last zinc plate. The reason is that the platinum has no affinity for either of the constituents of the water; therefore, the water being decomposed, both the above gases escape. If the terminal plates are made of copper, instead of platinum, the hydrogen will appear in bubbles on the negative plate; but no oxygen will appear on the positive copper plate, because the copper connects with the oxygen, forming oxyde of copper, which dissolves in the dilute sulphuric acid, exposing again a metallic surface to renewed action, until all the positive copper plate is dissolved.

If we employ a solution capable of being decomposed by hydrogen—as, for instance, a solution of sulphate of copper—no hydrogen will escape; but it will connect with the oxygen of the oxide of copper, and at the negative pole metallic copper will be deposited.

These actions being understood, it appears that whether hydrogen and oxygen, both of them or only one of them, or neither of them, are evolved, the original influence is always the same; the appearances only being modified by the disappearance of the oxygen in connecting with the positive metal, if this be oxydizable, or the reducing action of the hydrogen on some oxyde contained in the solution. In seeing these changes going on, no one will doubt for a single moment that a chemical action is taking place. Just as plain are the evidences of an electric current being active, which can be easily proved in different ways. One proof is by applying the galvanometer. This consists of a rectangular coil of copper wire, containing about twenty convolutions, the wire being covered with cotton or silk, to prevent the lateral escape of the current. A magnetic needle, supported on a pivot, is placed in the center of the coil, and a card, graduated into 360°, is fixed to the board on which the coil rests, so that a line drawn from 360° to 180° coincides with its long axis. We place this instrument in such a position that the wire coil is precisely in the magnetic meridian, and consequently the needle and coil, both, will be parallel and point nearly north and south.

We form now a galvanic pair by immersing a copper and a zinc plate in water, slightly acidulated with sulphuric acid; but instead of forming immediately a metallic connection between the two metallic plates, we solder a copper wire to each of the plates, separate the plates from each other, and fasten these two wires each to one end of the coil of wire surrounding the magnet, the ends of which must be laid bare from their silk covering, so that metal shall touch metal. The moment that these connections are completed, the needle will move to the east or west, which is a positive proof of an electric current traversing the wire.

Another satisfactory proof of the same fact, is given by the calorific effects of electricity. We take two plates of copper and zinc, which for this purpose ought to be at least four inches long and two broad, the larger the better; we place them, separated, in the dilute acid, then connect them by a piece of very fine platinum wire, half an inch in length. The platinum wire will become brilliantly ignited; and this is a positive proof of an electric discharge taking place through it.

Some more proofs of the existence of an electric current in this case could be produced, but those already given are quite sufficient.

Now no one denies that in a galvanic battery an electric current is established, and a chemical action takes place; but which of the two is the cause, and which the effect, is a question which the most learned men have for a number of years disputed, without being able to agree in opinion. Dr. Wollaston, Dr. Faraday, and several others, believe that the chemical action of the acid solution on the zinc, or rather of the zinc on the water of the acid solution, is the source of the electric current in the voltaic battery; and this is termed the CHEMICAL THEORY of the pile. Other philosophers, following the opinion of the illustrious discoverer, Prof. Volta, of Pavia, believe that the chemical action is the effect of the electric current, and that the power is produced by the contact of two dissimilar metals—this latter has received the name of the CONTACT THEORY. It is certainly a matter of the greatest importance to know the source or origin of a power that has been applied to so many useful purposes, and which promises for the future so many additional uses; and it is very much to be regretted that learned men cannot unite in one opinion, because when two exist, one must be right and the other wrong, and the student gets bewildered, not knowing which opinion should be received. If our ideas about the source of voltaic action were clear and correct, we might be enabled to produce and regulate that power with more certainty, and perhaps more economy; but as long as we do not know the source of power, we shall always be groping in the dark.

The great obstacle in clearing up our notions about any mysterious law of nature, has always been the vanity of some learned men, who, fond of some preconceived notion, cannot bear that any one should contradict their pet idea. A curious instance of this truth is found in the early stages of chemistry. In the beginning of the eighteenth century, a German chemist, named Stahl, founded the phlogistic theory of chemistry, asserting that every combustible body, as, for instance, the metals, contain a matter which he called Phlogiston. Observing that the metals, when oxydized by combustion or otherwise, lose their metallic properties, Stahl and his followers believed that the metals gave up their phlogiston, and losing this they are no more metals. In the year 1783, Lavoisier proved that the metals, when oxydized by combustion, or otherwise, weigh heavier than they did before; for instance, one pound of copper, when thoroughly roasted, will give a pound and a quarter of a black powder, etc., etc.

Now, although any man in his right senses, when seeing that four pounds of copper, after being burned, weighed five pounds, must have been convinced that it *gained* something; still, for about twenty years after this discovery, some of the most learned men disputed this fact, and firmly believed that the metals under these circumstances actually *lost* something. Such was the opinion held by many until the discovery of the different gases and their properties of connecting with solid bodies, put an end to these ridiculous controversies.

If we seek for truth, neither vanity nor prejudice should influence us. We cannot make nor change the laws which the Almighty has impriuted upon nature; we are fortunate if we can only trace them.

It would be useless for us to describe all the numerous experiments which have been made, to prove that almost every chemical action produces a current of electricity; in most cases, however, of very weak tension. It is certain that electricity produces chemical action, when the current traverses different bodies capable of being decomposed, and the electricity is of the proper tension; no difference whether the electricity be generated by friction or a galvanic battery, or the motion of a magnet, or by any of the numerous ways that will generate electricity. Our object is to inquire into

THE SOURCE OF THE ACTION IN A GALVANIC BATTERY.

Is it a chemical action which starts the electricity, or is it electricity which here produces decomposition?

To decide this point, I wish to answer three questions.

The first question is—Will two different metals, by mere contact, produce electricity without any exciting fluid whatever? My answer is—yes.

Two disks of different metals, when pressed together and suddenly separated, assume opposite electric states. To demonstrate this, take a plate of copper and one of zinc, about four inches in diameter, each furnished with a glass handle fixed in its center; now connect a gold leaf electrometer with one plate, A, of the condenser, allowing the other plate, B, on the condenser, to be connected with the earth. Press the copper and zinc plates together, holding them by their insulating handles; suddenly separate and apply one of them to the plate, A, of the condenser; again press them together, having previously touched them with the finger to restore their electric equilibrium, and reapply the same plate to the same condenser. Repeat this about six times; then draw back the uninsulated plate, B, and the gold leaves of the electrometer will diverge with positive electricity if the zinc, and with the negative if the copper plate has been applied to the condenser.—[*Dr. Bird's Natural Philosophy.*]

The second question to be answered is—In constructing a galvanic battery, are we making arrangements favorable to a chemical action? I answer—No.

If we dip a plate of zinc in dilute sulphuric acid, it will cause a rapid evolution of hydrogen gas, which will escape along the plate of zinc, until all the zinc will be dissolved—if a sufficient quantity of acid be present. This is called a chemical action, and every chemist knows that the zinc combines with the oxygen of the water, that the oxyde of zinc so formed is dissolved in the dilute sulphuric acid as sulphate of zinc, and the hydrogen, thus set free, escapes along the zinc.

We now place a plate of copper in the same acidulated liquid, separate it from the plate of zinc, and connect the two plates together outside the fluid by a wire previously fastened to each plate. What will be the result? We shall see hydrogen escaping from both plates—the copper as well as the zinc—and we say, that the hydrogen escapes from the copper in consequence of an electric current, as the copper-plate does not undergo the slightest change; neither does the copper gain or lose anything. Chemistry cannot account for this, and it is universally acknowledged, that only the quantity of hydrogen escaping from the copper, is in proportion to the electricity, and therefore it has been used to ascertain the relative quantity of electricity which is active. The hydrogen escaping from the zinc, cannot be taken in account. It is an unnecessary waste, and therefore means have been devised to prevent the local action of the acid on the zinc, by coating the zinc plate with mercury.

The surface of the zinc is cleaned with a little acid, and a few globules of mercury are rubbed over it, and we call it then *amalgamated*. If we dip this amalgamated zinc plate in dilute sulphuric acid, it assumes a grayish tint from its becoming covered with myriads of excessively minute bubbles of hydrogen gas, which mechanically adhere to its surface, and thus form a gaseous covering, which shields it from the further action of the acid. We can see quite plain that there is an end to the chemical action. We now immerse a copper plate in the same dilute acid, and form a metallic connection between the copper and the amalgamated zinc plate, when in an instant a torrent of bubbles of gas is evolved from the copper, no evolution of gas from the zinc taking place. The copper, however, remains chemically unacted upon, and the zinc is alone dissolved, in proportion to the quantity of hydrogen escaping from the copper.

This answers my second question, whether in constructing a galvanic battery we are producing conditions favorable to chemical action. *We do not.* On the contrary, we arrange it so as to impede the chemical action; we coat the zinc with mercury, and this prevents the dilute sulphuric acid from acting on the zinc, which is not at all consumed or in any way altered, until we dip another more negative metal, for instance copper, in the same fluid, and form a metallic connection between the two metals.

If it were true, that in a galvanic battery chemical action produces electricity, would it not be reasonable to expect, that uncoated zinc should produce a larger amount of electricity than the amalgamated zinc; since the uncoated zinc gives rise to a very powerful action, when dipped in dilute acid, while the amalgamated zinc excites no chemical action whatever.

We employ a similar proceeding in the protected sulphate of copper batteries. In using, for instance, porous cells, it is not necessary to amalgamate the zinc; but then we must not allow an acid solution to be in contact with the zinc, because it would consume the zinc, without giving us any benefit. We ought only to use solutions that have no chemical influence on the zinc; for instance a solution of common salt, or sulphate of zinc, and so on. We do not want the zinc to be touched by any solution capable of acting on it. How can we then reasonably imagine, that the chemical action of the zinc on the surrounding fluid excites electricity, if no chemical action of any kind is present?

The third question I wish to answer, is from which plate originates the power? Is it the zinc or the copper plate? By what I have already said, it is clearly understood, that the action showing itself on the negative or copper plate, is regarded as an electric action, because it cannot be explained by the laws of chemistry. This action might consist in the evolution of hydrogen, or in the reduction and deposit of a metal on the negative plate, which amounts to the same, as far as the kind of power is concerned that produces these effects. It is likewise understood that the action on the zinc or positive plate, is considered a chemical action, and consists in the oxidation of the zinc, which consequently is dissolved by the acid, which forms a constituent of the liquid surrounding it.

To answer our question, let us suppose we have a vessel divided into two copartments by a porous diaphragm, it might be a bladder, unglazed earthenware, or anything else of this kind. In one division of the vessel we put a solution of sulphate of copper, and in the other division a solution of sulphate of zinc. In the first solution we immerse a copper plate, and in the last solution a zinc plate, and connect the two plates by a copper wire. What will be the result? The copper of the solution will be deposited on the copper plate, and the solution of sulphate of copper will be in the end so exhausted, that hardly anything but water will be left in its place. On the other side the zinc will be dissolved, and the solution surrounding it will be concentrated, and contain so much sulphate of zinc, that, if proper precautions be not taken, it will even crystallize. Now let us try to explain this final result by two different and opposing suppositions to find out which is the correct one.

[To be Continued.]

[Written for the Mining and Scientific Press.]

Mining in Aurora.

EDITORS PRESS:—My letters of late have been few and far between, owing to the scarcity of subject matter hereabouts. My object is only to write you of matters of interest in general on mining.

For the past three or four months, work has been going steadily on in this district, that will eventually test the value of the mines, and prove the existence or non-existence of its mineral wealth. Past experience teaches the futility of gouging out mines on their surface, with any hope of making them permanent paying institutions. It is only by sinking to the *core*, where the real formation of mineral lies, that will give any lasting stability to a mine. This now seems to be the determination of the owners of at least a few of the leading lodes here, and if their efforts should be crowned with success (of which I have not the least doubt), hundreds will follow in their wake. There are many mines working that pay their way, independent of those sinking for a test. Among the former,

THE PHILADELPHIA COMPANY

Is driving its work along with a vigor and force very creditable to the superintendent, Mr E. O. Taylor. Their shaft, intended to be 500 feet deep, before they commence drifting into the hill, is situated in Wide West Gulch, a short distance above the famous Wide West mill, on the west side of Last Chance Hill. They are now down about eighty feet, and are making from three to four feet a day. The strata through which they are working requires but little blasting, being composed of a mixture of decomposed quartz and bed-rock. The shaft is eight by four and a half in the clear, and as fine a piece of work as I have have ever seen. This company have a tunnel running into the hill from where their shaft is located, some 600 feet long; and in that tunnel they have six well defined ledges. When they attain the depth of 500 feet, I predict for them a brilliant success. Mr. Taylor is now in San Francisco, looking after the shipment of some $50,000 worth of machinery, which he started for this purpose prior to his leaving Philadelphia.

THE GOLDEN AGE AND EMPIRE COMPANY,

On the summit of Last Chance, are driving their work bravely on, under the able management of Capt. George Benson. They are run-

ning a night and day shift, and are down with their perpendicular shaft about 220 feet. They, too, intend sinking 500 feet before drifting. This company has shown more stirring determination than any company in the camp. Last year they sunk to the depth of 270 feet, on an incline; but being obstructed with water, they abandoned that undertaking, came up to within 140 feet of the surface, squared their shaft, and started in anew to sink perpendicularly. They hoist their dirt by the aid of a whim, until they again encounter water, when it is the intention of the company to put on steam hoisting machinery. This machinery, I understand, is all ready in San Francisco, to be shipped at a moment's notice, when it is seen that it will be required. There are a number of valuable mines in the vicinity of this one, that will certainly reap the benefit if anything is struck in this company's works.

THE CROCKETT,

Situated just below the Golden Age and Empire, is working away. Their mine has rock that pays well. The manager, Mr. Gallagher, is working it on an economical scale, and in a manner that has so far proved very satisfactory. I am informed that it is his intention to continue doing so until the development of the Golden Age and Empire; as that company will demonstrate in its workings the existence of new developed lodes, at the depth they propose to go; and the Crockett being in such close proximity, it is but reasonable to conclude, that if found by the one, the others will have it also; and among them all the Crockett stands the best chance, as they have now a well defined ledge from twenty-eight feet of the surface to the depth of 150 feet, averaging from two to four feet in width, that will pay as it comes out of the mine from $80 to $100 if properly worked. Two thousand two hundred pounds of assorted rock from this mine, was worked recently by a Mr. S. F. Clouser, from your city, and yielded the handsome return of $800 to the ton. Refuse rock, such as they have been throwing away, yielded $80 to the ton; showing conclusively that the downfall of this camp is mainly to be laid to the want of ability on the part of the millmen here to get what is really in the ore. *

Aurora, Nevada, June 14, 1866.

SENATOR CONNESS' NEW MINING BILL.

The following Bill to regulate the occupation of mineral lands, and to extend the right of pre-emption thereto, was reported in the Senate of the United States, May 28, by Mr. Conness, Chairman of the Committee on Mines and Mining:

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled.

SECTION 1. That the mineral lands of the public domain, both surveyed and unsurveyed, are hereby declared to be free and open to exploration and occupation to all citizens of the United States, and those who have declared their intention to become citizens, subject to such regulations as may be prescribed by law, and subject also to the local custom or rules of miners in the several mining districts, so far as the same may not be in conflict with the laws of the United States.

SEC. 2. And be it further enacted, That whenever any person or association of persons claim a vein or lode of quartz or other rock in a place, bearing gold, silver, cinnabar or copper, having previously occupied and improved the same according to the local custom or rules of miners in the district where the same is situated, and in regard to whose possession there is no controversy or opposing claim, it shall and may be lawful for said claimant or association of claimants to file in the local office a plat of the same so extended laterally or otherwise as to conform to the local laws, customs, and rules of miners, and to enter such tract and receive a patent therefor, granting such mine, together with the right to follow said vein or lode with its dips, angles and variations to any depth, although it may enter the land adjoining, which land adjoining shall be sold subject to this condition, and upon the further indefeasible condition, both to be fully expressed in the patent, that the owners and occupants of the mine so appropriated and held shall pay into the treasury of the United States, in each and every year until the national debt shall have been paid, three per centum of the net product of said mine, vein, or lode, which shall be in lieu of the stamp tax now levied upon bullion extracted from the public domain.

SEC. 3. And be it further enacted, That upon the filing of the plat of the survey, as provided in the second section of this Act, the Register of the Land Office shall publish a notice of the same in a newspaper published nearest to the location of said claim, and shall also post such notice in his office for the period of ninety days; and after the expiration of said period, if no adverse claims shall have been filed, it shall be the duty of the Surveyor General, upon application of the party, to survey the premises and make a plat thereof, indorsed with his approval, designating the number and description of the location; and upon the payment to the proper officer of $5 per acre the Register of the Land Office shall transmit to the General Land Office said plat, survey, and description, and a patent shall issue for the same thereupon; and the Surveyor General shall receive for such service such compensation as is allowed by law, with mileage not to exceed at legal rates the amount chargeable from the county seat of the county in which the claim may be situated to the said claim.

SEC. 4. And be it further enacted, That when such location and entry of a mine shall be upon unsurveyed lands, it shall and may be lawful, after the extension thereto of the public surveys, to adjust the surveys to the limits of the premises according to the location and possession and plat aforesaid, and the Surveyor General may, in extending the surveys, vary the same from a rectangular form to suit the circumstances of the country and the local rules, laws and customs of miners; Provided, that no location hereafter made shall exceed three hundred feet in length along the vein for each locator, with an additional claim for discovery to the discoverer, with the right to follow such vein to any depth, with all its dips, variations and angles, together with a reasonable quantity of surface for the convenient working of the same, as fixed by local rules.

SEC. 5. And be it further enacted, That the President of the United States be, and is hereby, authorized to establish additional land districts and to appoint the necessary officers under existing laws, whenever he may deem the same necessary for the public convenience in executing the provisions of this act.

SEC. 6. And be it further enacted, That whenever adverse claimants to any mine, located and claimed as aforesaid, shall appear before the approval of the survey as provided in the third section of this act, all proceedings shall be stayed until a final settlement and adjudication in the Courts of competent jurisdiction of the rights of possession to such claim, when a patent may issue as in other cases.

SEC. 7. And be it further enacted, That whenever prior to the passage of this act, upon the lands heretofore designated as mineral lands which have been excluded from survey and sale, there have been homesteads made by citizens of the United States, or persons who have declared their intention to become citizens, which homesteads have been made, improved, and used for agricultural purposes, and upon which there have been no valuable mines of gold, silver, cinnabar or platinum discovered, or which are properly agricultural lands, the said settlers or owners of such homesteads shall have a right of pre-emption thereto, and shall be entitled to purchase the same at the price of one dollar and twenty-five cents per acre, and in quantity not to exceed one hundred and sixty acres, or said parties may avail themselves of the provisions of the act of Congress, approved May 20, 1862, entitled "an act to secure homesteads to actual settlers on the public domain," and acts amendatory thereof.

SEC. 8. And be it further enacted, That upon the survey of the lands aforesaid, the Secretary of the Interior may designate and set apart such portions of the said lands as are clearly agricultural lands, which lands shall thereafter be subject to pre-emption and sale as other public lands of the United States, and subject to all the laws and regulations applicable to the same.

SEC. 9. And be it further enacted, That whenever, by priority of possession, rights to the use of water for mining, agricultural, manufacturing or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and the decisions of the Courts, the possessors and owners of such vested rights shall be maintained and protected in the same; and the right of way for the construction of ditches and canals for the purposes aforesaid, is hereby acknowledged and confirmed; provided, however, that whenever, after the passage of this act, any person or persons shall, in the construction of any ditch or canal, injure or damage the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage.

SEC. 10. And be it further enacted, That the right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted.

SIX Boston merchants have contributed $5,000 each toward the new hall of Harvard College, to be erected in memory of the graduates of that institution who fell in the late war.

ONE hundred pounds of water of the Dead Sea contains forty-five pounds of salt.

Mechanical.

ANOTHER IMPROVEMENT IN THE CHRONOMETER ESCAPEMENT.—We noticed in a former issue of this paper, an improvement in the chronometer escapement by W. H. Lamb, of this city. We have since been shown yet another, also by Mr. Lamb, which, if possessed of the merits claimed, is a very important one, as it possesses many advantages over his former invention, or any other escapement in use. Mr. Lamb has taken the preliminary steps to secure a patent through the MINING AND SCIENTIFIC PRESS PATENT AGENCY. Its advantages over the lever are that an equal impulse is given to the balance, both upon its right and left vibration, direct from the scape wheel, thereby requiring only about one-half the force of a main spring which is required by the lever, and consequently is much less liable to breakage. Another advantage is its cheapness; as it can be manufactured for about one-half the cost of the lever escapement. Its simplicity of construction adds to its non-liability to get out of repair. Its advantages over the duplex escapement are, the impossibility of escaping more than one tooth of the scape wheel at each vibration of the balance, no matter how far it may vibrate; whereas in the duplex, should the balance vibrate too far, two teeth of the scape wheel will escape at each vibration, which it is very liable to do in riding horseback or jumping, etc., thereby causing the watch to gain time. The chronomotor as now in use has the same imperfection in this respect.

In addition to this, it has yet another advantages over the chronometer, which is that when the balance is at rest, the tooth of the scape wheel is unlocked, and when the force is applied to the train, impulse is immediately given to the balance, and the watch starts or moves. In the chronometer now in use, no impulse is given to the balance until it is first set in motion by external force.

AMERICAN IRON ORE IN ENGLAND.—The superior value of American iron ore was known and acknowledged in England long previous to the Revolution, and during which time considerable quantities were imported into the mother country. The Franklinite ore of New Jersey would to-day all be exported to England to assist in the manufacture of Bessemer steel, were there not more important uses for it at home.

The English engineers are now talking of importing American Salisbury iron ore to assist in making car wheels, as they have utterly failed in making good cast iron chilled wheels from any iron in England. The American cast iron wheels drove the English wrought iron wheels from the railways in Canada.

Alexander M. Ross, engineer of the Grand Trunk Railway of Canada, says in a letter: "I was myself instrumental in the introduction of the English pattern of wheel, and after two or three years' trial had to abandon them altogether."

An English engineer of note writing to Col. Simpson lately, to send him some cast iron wheels of Salisbury iron, asked him to get a guarantee that each wheel would stand a load of two tons at ordinary speed. The wheel founder said: "I will give him a guarantee that each wheel will stand twenty tons at any speed."

MANUFACTURE OF TIN PLATE.—During the last seven years the annual average value of tin plates manufactured in Great Britain, and shipped for exportation, amounted to more than $5,000,000. The largest amount, to the value of $3,590,000, is shipped to the United States. It is to be hoped that the mines of California will soon enable us to furnish our own tin.

THE PACIFIC NOVELTY IRON WORKS, situated on the Point, near Oakland, have just received as new members of the firm, Messrs. Hobart and Gardner. They have a 20-stamp quartz mill completed. It possesses some new and attractive features. The foundry is under the superintendence of Wm. Scoville.

THE HARDENING OF IRON.—A French experimentalist found, a few years since, that by heating iron tolerably free from carbon, with a small quantity of boron, to a very high temperature, he obtained a product which could not be forged, but which possessed extraordinary hardness. He has now found that an equally hard metal may be obtained by adding to ordinary cast iron, in fusion, phosphate of iron and peroxide of manganese; he does not mention in what proportion. The product cannot be forged, but it casts easily, and is, therefore, applicable to the construction of such machines or parts of machines as require in their material extreme hardness rather than tenacity. The metal is, moreover, singularly sonorous, and the discoverer proposes it as a material for bells. He finds that a still harder metal is producible by the addition of tungstein—again he omits to state in what amount—to ordinary cast iron. He states that his tungsteo iron surpasses everything previously known as a material for tools for cutting rocks, and that crystals of it will cut glass as readily as the diamond.

EXPANSION OF METALS.—Metals expand by heat, and contract by cold; and in almost all mechanical operations, unless the tendency to expand is allowed to act, very great strains are brought to bear upon the material. The following table shows the amount of expansion for different materials:

	Expansion per. deg. Fah.	Expansion from 32° to 212°.
Iron	.0000067	.00122
Steel	.0000060	.00124
Copper	.0000090	.00171
Zinc	.0000160	.00294
Tin	.0000120	.00217

Almost all solid bodies expand equally for each degree between freezing and boiling, or from 32 to 212 degrees of Fahrenheit's thermometer. A bar of iron, therefore, which is 12 feet long, by an increase of 60 degrees of temperature becomes 60x12x.0000067=12.0048 feet in length.

A FRENCH workman, some time since, constructed for the Duke of Wellington a watch of novel and peculiar construction, the idea of which was conceived by the Duke himself, who was well known to have been of an impatient temper, and could not pass half an hour in any one's society without feeling an irresistible inclination to look at his watch. Now, it is exceedingly impolite, particularly in England, to draw forth a watch in the presence of ladies, and the Duke hit upon an ingenious plan to ascertain the time without anyone present being the wiser for it. The watch constructed for him was a silent repeater. It was provided with a spring, on touching which a small hammer issued from the case and struck the hour in the palm of the person's hand holding it. The Duke had merely to slip his hand carelessly into his pocket, touch the spring, when he was immediately informed of the time of day.

A SUBSTITUTE FOR EMERY.—Among the most useful applications of waste substances to the advancement of the industrial art, we think may prove an invention recently patented in England. It is the utilization of the immense hills of slag which surround old established iron works. It is said that this refuse material may be substituted for emery, and that it is even superior to emery for polishing steel, iron, copper, and other metals. The new substance is called "metalline," and can be produced at seventy or eighty per cent. less cost than emery.

GOLD, IRON AND COAL.—According to the census of 1860, the product of the gold mines in the United States amounted to $47,163,170. The product of the coal mines, $20,243,637; iron, $23,870,120—the gold product being more than equal in value to both coal and iron. Owing to the increased area of the gold fields of the Pacific coast during the past five years, the interruption in the manufacture of iron, and increased cost of labor in the coal mines, consequent of the derangements produced by the war, during the same period, it is safe to estimate the yield of the precious metals during 1866 at double that it was in 1860; while the produce of iron and coal will probably not more than equal the value that of 1860.

COPPER ROLLING.—Government is erecting a copper and brass rolling mill at the Frankford Arsenal, Pa., which is to cost $300,000.

COPPER containing twenty-four per cent. of phosphorus will resist a strain of 48,000 pounds on the square inch.

WHITE LEAD.—A large white lead factory has been started at Louisville, Ky., at a cost of about $160,000.

SALES OF THE WEEK

BY THE S. F. STOCK & EXCHANGE BOARD

Friday, June 22.

AFTERNOON SESSION.

7 shs Belcher at 165@157½ per foot.
3 shs Belcher at 160 per foot, s 30.
15 shs Chollar-Potosi at 165@157½ per foot.
1 sh Yellow Jacket at 620 per foot, e 3.
3 shs Yellow Jacket at 640@660 pr ft.
1 sh Yellow Jacket at 635 per foot, s 30.
4 shs Crown Point at 1000 per foot, a 30.
96 shs Ophir at 300@280 per foot.
12 shs Ophir at 300 per foot, b 30.
24 shs Ophir at 292½ per foot, s 10.
12 shs Ophir at 290 per foot.
1 sh Savage at 980 per foot, s 10.
2 shs Savage at 980 per foot, s 3.
21 shs Confidence at 30@34 per sh.
5 shs Confidence at 32@34 per share, e 3.
26 shs Overman at 24½@25 per sh
6 shs Imperial at 92 per share, b 2.
5 shs Imperial at 90 per share, s 30.
10 shs Imperial at 94 per share, b 30.
10 shs Imperial at 91 per share, s 10.
1 shs Cal Steam Nav Co at 53 per cent.
$7,000 U S 7 3-10 Bonds, June is. at 73⅞@73½c
Amount of sales.....$ 32,620 00

Saturday, June 23.

2 shs Savage at 890 per foot.
1 shs Yellow Jacket at 650 per foot, s 3.
1 sh Yellow Jacket at 660 per foot, s 16.
2 shs Yellow Jacket at 665 per foot.
16 shs Alpha at 210 per foot.
4 shs Alpha, G H, at 212½ per foot,
12 shs Alpha, G. H., at 212½ per foot.
12 shs Ophir at 207½ per foot, b 30.
12 shs Ophir at 285 per foot, h 30.
72 shs Ophir at 225@270 per foot.
12 shs Ophir at 270½ per foot, s 5.
36 shs Ophir at 275@280 per foot, b 30.
12 shs Ophir at 265 per foot, s 30.
36 shs Ophir at 265 per foot.
2 shs Hale & Norcross at 1250 per foot.
2 shs Hale & Norcross at 1250 per ft, e 30.
2 shs Halc & Norcross at 1275@1260 pr ft.
2 shs Hale & Norcross at 1250 per foot, e 33.
4 shs Hale & Norcross at 1260@1265 per ft.
2 shs Chollar-Potosi at 185 per foot, s 3.
1 sh Chollar-Potosi at 185 per foot.
1 sh Chollar-Potosi at 187½ per foot.
40 shs De Soto at 3½@3¾ per share.
25 sh Imperial at 102½ per share.
10 shs Imperial at 105 per share, h 30.
2 shs Imperial at 100@102 per share.
6 shs Imperial at 103 per ehare.
10 shs Lady Bryan at 3@3¼ per sbare.
20 shs Lady Bryan at 3 per share, a 3.
10 shs Overman at 25 per share.
5 shs Overman at 25 per ft, s 3.
5 shs Overman at 26 per foot, b 30.
45 shs Confidence at 40 per share.
10 sh Confidence at 41½ per foot, b 30.
10 shs Confidence at 42 per share, b 30.
10 shs Confidence at 41 per share
3 shs Bullion at 57½ per share.
10 shs Spring Valley W Co at 61@69 p ct.
10 shs Spring Valley W W at 60¼ per sh.
100 shs Fireman's Fund at 121 per cent.
30 shs Pacific Insurance at 180 per cent.
$1,000 Legal Tender Notes at 71½c.
Amount of sales.....$ 31,192 00

Monday, June 25.

10 shs Belcher at 160@180 per foot
1 eh Belcher at 180 per foot, b 30.
12 shs Ophir at 270 per toot.
24 shs Ophir at 270 per foot, s 3.
1 sh Yellow Jacket at 675 per ft.
4 shs Crown Point at 970 per foot, s 3.
4 shs Chollar-Potosi at 185 per foot, s 3.
8 she Imperial at 105@100 per share.
10 shs Imperial at 104@107 per share, b 10.
1 sh Imperial at 104 per sbare, s 3.
46 shs Confidence at 40@44 per share.
5 shs Confidence at 44½ per sharo, s 30.
20 shs Bullion at 69@57½ per share.
5 shs Bullion at 57½ per share. s 3.
5 shs Bullion at 57½ per share, h 3.
40 shs Overman at 27½@27¸per sbare.
20 ehs Overman at 30 per foot, b 30.
30 shs Sierra Nevada at 2¾ per share.
10 shs Lady Bryan at 2¾ por ehare.
10 shs Spring Valley Water Co at 61¼ p ct

AFTERNOON SESSION.

5 sbs Belcher at 190 per foot.
1 eh Belchcr at 190 per foot, a 3.
1 eh Belcher at 192½ per foot, b 30.
2 shs Belcher at 185 per tt.
15 ehs Belcher at 187½ per foot.
3 shs Belchor at 195 per foot, h 30.
48 sbs Ophir at 270 per foot, e 10.
12 shs Ophir at 280 per foot, b 30.
12 shs Ophir at 270 per foot.
12 she Ophir at 270 per foot, e 3.
3 shs Chollar-Potosi at 186 per foot.
5 she Overman at 29 per foot, e 3.
10 she Overman at 28¾ per share.
157 ehs Overman at 30 per share.
9 shs Overman at 29½ per share.
10 ehs Overman at 31 per sb. b 30.
6 shs Confidence at 47¾ per share.
5 ehs Confidence at 47½ per share, b 30.
5 ehs Confidence at 51 per share, b 30.
10 shs Imperial at 101 per share, s 30.
5 shs Imperial at 102 per share.
20 ehe Lady Bryan at 2¾ por sbare.
Amount of sales.....$ 26,516 00

Tuesday, June 26.

12 shs Ophir at 265 per foot. b 5.
96 shs Ophir at 250@260 per foot, e 30.
36 sbs Ophir at 275@260 per foot, b 30.
12 shs Ophir at 310 per foot.
48 shs Ophir at 260@256 per foot, b 10.
24 shs Ophir at 255 per foot, e 10.
2 shs Yellow Jacket at 690 per foot, e 3.
5 ehs Yellow Jacket at 690 per foot, b 2.
2 shs Yellow Jacket at 690 per foot, e 5.
1 sh Yellow Jacket at 691 per ft.
20shs Belcher at 170@187½ per foot.
6 sbs Belcher at 192½@183 oer foot. b 30.
1 sb Belcher at 175 per foot, e 30.
1 eh Belcher at 175 per foot, a 3.
1 sh Savage at 960 per foot, s 30.
2 shs Chollar-Potosi at 185 per foot, s 3.
9 shs Imperial at 96@102 per sharo.
35 shs Confidence at 56@60 per share.
15 shs Confidence at 57½@55 per share, e 30.
40 shs Confidence at 60@57½ per share, b 30.
5 shs Confidence at 55 per share, e 10.
5 shs Overman at 27 per share, s 30.
15 shs Overman at 28 per share.
10 shs Overman at 31 per foot, b 30.
10 shs Overman at 28½ per ft, s 10.
55 shs Lady Bryan at 2 per share.
5 shs Bullion at 56 per share.
10 shs Pacific Insurance at 180 per cent.
$3,000 Legal Tender Notes at 71e.

AFTERNOON SESSION.

1 sh Yellow Jacket at 703 per foot, h 18.
3 shs Yellow Jacket at 700 per foot, s 30.
6 shs Yellow Jacket at 710 per foot, b 30.
1 sh Yellow Jacket at 700 per foot, s 10.
2 shs Yellow Jacket at 695 per foot, s 30.
1 sh Yellow Jacket at 690 per foot, e 30.
10 shs Yellow Jacket at 700 per foot.
12 shs Ophir at 260 per foot.
12 shs Ophir at 260 per foot, s 10.
12 shs Ophir at 255 per foot, s 10.
12 shs Ophir at 255 per foot.
36 shs Ophir at 255 per foot, s 30.
24 shs Ophir at 260 per foot, b 10.
2 shs Belcher at 175 per toot.
1 sh Belcher at 177½ per foot, s 3.
10 shs Bacon, G H, at 35 per foot.
5 shs Bullion at 57½ per share, b 10.
5 shs Bullion at 57½ per share, b 3.
5 shs Overman at 29 per sh, b 22.
5 shs Overman at 27 per share.
10 shs Overman at 27½ per sharo.
11 shs Confidence at 60 per share.
5 shs Confidence at 60 per sharo, s 3.
5 shs Confidence at 57½ per share, s 30.
5 shs Confidence at 60 per share, s 30.
6 shs Confidence at 62¼ per share.
50 shs Spring Valley W W, at 61¼ per cent.
Amount of sales.....$ 51,445 00

Wednesday, June 27.

276 shs Ophir at 255@215 per foot.
24 shs Ophir at 247@215 per foot, s 3.
24 shs Ophir at 240 per foot, s 30.
2 shs Belcher at 172½ per foot.
1 eh Belcher at 172½ per ft, e 30.
4 shs Yellow Jacket at 695@697 per ft,
2 shs Yellow Jacket at 695 per foot, s 3.
1 sh Yellow Jacket at 700 per toot, b 3.
1 sh Hale & Norcross at 1250 per foot, s 30.
2 shs Halc & Norcross at 1250 per foot.
1 sh Chollar-Potosi at 185 per foot.
2 shs Savago at 960@955 per foot.
1 sh Savage at 950 per foot, s 30.
15 shs Bullion at 57½@57 per share, b 3.
8 shs Imperial at 96@97 per share.
5 shs Imperial at 99 per share, b 30.
50 shs Lady Bryan at 2 per share.
30 shs Confidence at 62½@65 per share, 1 3.
45 shs Confidence at 66@67½ per sh, b 30.
20 shs Confidence at 60@62½ per sh, s 30.
29 sh Overman at 25@26½ pr foot
20 shs Overman at 25 per sh, s 30.
15 shs Overman at 25 per sh, s 5.
3 shs Cal Steam Nav Co at 54 per cent.

AFTERNOON SESSION.

4 shs Crown Point at 960 per foot.
8 shs Crown Point at 950 per foot.
1 sh Belcher at 165 per foot.
2 shs Belcher at 165 per foot.
72 shs Ophir at 242½ per foot,
24 shs Ophir at 242 per foot.
48 shs Ophir at 216 per foot, s 3.
12 shs Ophir at 235 per foot, s 10.
24 shs Ophir at 230 per foot, s 10.
12 shs Ophir at 235 per ft.
1 sh Yellow Jacket at 690 per foot, s 10.
1 sh Yellow Jacket at 690 per foot.
1 sh Yellow Jacket at 689 per foot, s 30.
2 shs Yellow Jacket at 685 per foot, e 10.
5 shs Yellow Jacket at 689 per foot.
3 shs Yellow Jacket at 682½ per foot, s 10.
2 shs Yellow Jacket at 682½ per foot.
1 sh Yellow Jacket at 690 per foot, b 10.
3 shs Yellow Jacket at 690 per foot, h 30.
5 shs Overman at 29 per share, b 30.
14 shs Overman at 25 per share.
10 shs Overman at 24 per sh, s 5.
2 shs Overman at 24 per foot.
5 shs Overman at 23½ per share.
4 shs Imperial at 93 per share.
15 shs Confidence at 52½ per sh.
8 shs Confidence at 55 per sh, s 3.
5 shs Confidence at 56 per share.
25 shs Confidence at 60 per ft, b 30
10 shs Confidence at 57 per share, s 30.
20 shs Spring Valley W W at 62 per ct.
Amount of sales.....$ 48,620 00

Thursday, June 28.

21 shs Ophir at 220@217½ per foot.
60 shs Ophir at 215 per foot.
12 shs Ophir at 215 per foot, h 5.
24 shs Ophir at 212½ per foot, e 3.
62 shs Ophir at 213@215 per foot.
24 shs Ophir at 214 per foot.
12 shs Ophir at 217½ per foot, h 3.
60 shs Ophir at 218@217½ per foot, e 3.
4 shs Gould & Curry at 732½ per foot.
4 shs Gould & Curry at 731 per foot.
4 shs Gould & Curry at 725 per foot.
7 shs Yellow Jacket at 680@682½ per foot.
2 shs Yellow Jacket at 695@690 per ft.
1 sh Yellow Jacket at 692½ per foot.
1 sh Yellow Jacket at 690 per foot, s 3.
1 sh Yellow Jacket at 700 per foot, b30.
1 sh Yellow Jacket at 700 per foot, b 20.
5 shs Yellow Jacket at 680 pr ft, s 30.
1 sh Yellow Jacket at 687½ per foot.
1 sh Yellow Jacket at 685 pr ft, s 30.
1 sh Yellow Jacket at 695 per foot, h 15
4 shs Yellow Jacket at 685 per foot.
6 shs Chollar-Potosi at 180 per foot.
10 sh Chollar-Potosi at 175 per foot, s 30.
2 shs Hale & Norcross at 1250 per foot.
1 sh Belcher at 155 per foot.
2 sh Savage at 900 per foot.
1 sh Savage at 885 per foot.
15 shs Confidence at 57½@50 per sh.
26 shs Confidence at 45@48 per share.
15 shs Confidence at 45 per share, b 3.
10 shs Confidence at 51@50 per share, h 30.
5 shs Confidence at 47½ per share, e 10.
5 shs Confidence at 47¾ per share.
10 shs Confidence at 55@52 per share, b 30.
5 shs Imperial at 103 per share, b 30.
1 sh Imperial at 97 per share.
5 shs Bullion at 55 per share.
5 shs Overman at 22 per share.
15 shs Overman at 21 per share.
10 shs Union Insurance at 125 per cent.
15 shs Union Insurance at 126 per cent.
45 shs Spring Valley W W Co at 62 per ct.
5 shs Cal Steam Nav Co at 55 per cent.

AFTERNOON SESSION.

1 sh Savage at 890 per foot.
2 shs Belcher at 155 per foot.
3 shs Belcher at 160 per foot.
3 shs Belcher at 165 per foot.
12 shs Belcher at 165 per foot, s 3.
1 sh Chollar-Potosi at 178 per foot.
1 sh Chollar-Potosi at 177 per foot.
1 shs Chollar-Potosi at 176 per ft.
6 shs Chollar-Potosi at 176 pr ft.
36 shs Ophir at 215 per foot.
24 shs Ophir at 215 per foot, e 3.
24 shs Ophir at 214 per foot.
12 shs Ophir at 213 per ft, s 3.
12 shs Ophir at 215 per ft, b 30.
84 shs Ophir at 212½ per foot, e 3.
96 shs Ophir at 212½ per foot.
108 shs Ophir at 210 per ft.
12 shs Ophir at 212½ per foot, b 6.
60 shs Ophir at 210 pr ft.
24 shs Ophir at 209 per foot.
5 shs Bullion, at 55 per sbare, s 30.
7 shs Imperial at 102 per share.
5 shs Imperial at 103 per share, s 3.
5 shs Imperial at 102 per share.
12 shs Imperial at 100 per share, s 30.
2 shs Imperial at 102 per share.
10 shs Imperial at 100 per share, e 3.
11 shs Imperial at 103 per share, s 5.
13 shs Imperial at 100 per share, s 30.
50 shs Confidence at 50 per share, s 5.
10 shs Confidence at 51½ per share, b 33.
3 shs Confidence at 47¾ per sh.
9 shs Confidence at 48 per sh.
5 shs Confidence at 50 per sh, b 10.
30 shs Confidence at 50 per sh.
5 shs Confidence at 45 pr sh, s 30.
5 shs Overman at 21 per share.
Amount of sales.....$ 65,963 00

Friday, June 29.

120 shs Ophir at 205@206 per foot.
60 shs Ophir at 270@207½ per foot.
448 shs Ophir at 210@208 per foot, s 3.
1 sh Savage at 900 per foot.
3 shs Yellow Jacket at 687½@690 per foot.
4 shs Yellow Jacket at 695@692½ per ft, s 3.
3 shs Yellow Jacket at 697½@692½ pr ft.
10 shs Yellow Jacket at 700 per foot.
1 sh Yellow Jacket at 700 per ft, s 3.
13 shs Imperial at 100@105 per share.
5 shs Imperial at 105 per share.
10 shs Chollar-Potosi at 170@172 per foot.
17 shs Chollar-Potosi at 170@173 per foot.
2 shs Chollar-Potosi at 174@175 pr foot.
6 shs Belcher at 162½ per foot.
4 shs Gould & Curry at 700 per foot.
12 shs Overman at 22@24 per tt.
21 shs Bullion at 57 per share.
5 shs Bullion at 56 per share, s 10.
22 shs Confidence at 47@50 per share.
5 shs Confidence at 47 per share, s 30.
15 shs Confidence at 51@52 per share, b 10.
$10,000 Legal Tender Notes at 71½c.
$5,000 Legal Tender Notes at 71¾ per cent.
$10,000 Legal Tender Notes at 71¾c, s 30
Amount of sales.....$ 70,925 00

From the Stock Circular of Associated Brokers of the S. F. Stock & Exchange Board.

SAN FRANCISCO, SATURDAY MORNING, June 30, 1866.

The Money market has been steadily active throughout the week, hut without any npproximation to pressure. The line of mercantile paper under discount with the banks bas increased within the past month, and the offerings are still considerable. This takes precedence over all otber securities, even the best dividend-paying stocks, and nntil the wnnts of the mercbants are fully supplied, its effect upon tbe Mining Share market will be depressing. The rates of interest bave not deviated, and capital is ahundant at 1@1¼ ℔ cent. per montb.

Owing to the suspension of telegraphic communication witb the East, from the 18th to the 27th instant, operations have been somewhat restricted in mercantile circles, but more activity may now be looked for.

The Sub-Treasurer in this city has received nuthority to increase the "Bullion Fund" of the Bronch Mint from $500,000 to $750,000. This is a fund provided by the Government to enable the Supeintendent of the Mint to pay the depositors the amount of their deposits before they can be worked into coin. Payments have, heretofore, been made within an nverage of six days, but this increase of the Bullion Fund will enable the depositor to get his moneyas soon as the assay is made and tbe intrinsic value of his deposit can be found—ordinarily within three days.

Receipts of treasure from tbe mining districts, since the date of our last reference, nmounted to nbout $800,000, making an aggregate of $3,800,000 for the month of June. During the ensuing summer months the yield of the qnartz and other mining enterprises of this State are likely to show a larger yield than for several years past.

Bullion has continued to meet with a fnir degree of inquiry nt full rates, and gold bars are quotable at 880@890; some sales are reported at even higher figures. Silver is also in good demnnd at 1½@2 ℔ cent. premium for bars of average fineness. The Sub-Treasurer of this city made a shipment of $500,000 on Government account by the last steamer, which makes an aggregate ,thus far of $4,500,000 sent East since January 1st.

Legal Tender Notes bave been inactive, and trifling sales were made within n range of 70@72c, closing at about 71 bid, 72c asked. Government officials have received $1,000,000 in Greenbncks by the lnst steamer from the East for disbursement in this city. Latest telegraphic ndvices from New York quote gold at 151 on the 25th inst.

The Mining Sbare market continues exceedingly flat nnd spiritless, and the few instances of vigor it occasionally elicits only serve to make the general lack of vitality more marked. Transactions since Saturday last sbow the smallest weekly aggregate siuce the beginning of the yenr.

Hale & Norcross receded from $1,300 to $1,250, rallied to $1,275, dropped to $1,250 agnin, and then sold at $1,275, and closed nt $1,270@1,275. The body of ore found recently in the 585-foot level is now some 20 feet wide, and promises to become n valuable addition to the resources of tbe mine. From the 700-foot level advices are also favorable, and tbe ore is averaging $45@50 per ton.

Crown Point was sold at $960@950, and was held at the close at about $900. During the week ending 22d instant, 623 tons of ore were extracted from the mine. Receipts of bullion from the 1st to 20th inst. nmounted to $65,000. The improvements to the Rhode Island mill will be commenced next week, which will increase tbe crushing capacity of that establishment to about 60 tons per day.

Savage fell from $990 to $885, and then sold at $885, closing at $900. During the week ending 23d instant, 704 tons of ore were extracted from the mine. The fifth station, near the Gould & Curry line, is yielding a large amount of second and third-class ore, and the product of the sixth could be materially increased with better hoisting facilities. The winze from the latter is down some 50 feet in good ore. The main shaft has been sunk 85 feet below the sixth level, and the southwest drift, in tbe direction of the Hale & Norcross, is in 135 feet from tbe shaft.

Gonld & Curry has met with small sales this week at $732@725, closing at $710. Yellow Jacket rose from $650 to $703, fell to $682½, and then sold at $690@682, and was dealt in yesterdny at $687@692½. During the week ending 18th inst., 2,172 tons second and third-class, and 13 tons first-class ore, were taken from this mine, and the yield of bullion amounted to $69,186.06, making the aggregate receipts, for the first three weeks of June, $179,024.

Ophir is in less favor, and some 125 feet were sold, steadily declining from $287 to $213, then changing hnnds at $217, and selling at the close at $209@213. There is no important change to note in any portion of this claim.

Chollar-Potosi has been unusually inactive witbin a range of $187 @$185, closing at $183. The Piute station is said to be looking well, and in the Bajazette ground the winze has been sunk a short distauce (under the old Spanisb mine) in promising ore. In breasting out to the south, in the "stope overbead of incline," there is an improvement, and the ore appears to extend higher up than it did in other portions of that station. The winze from the 485-foot Potosi level is down some 50 feet in quartz. The first station drift from new shaft is now in softer rock with some water, and in going north the seam of quartz has widened, but without any improvement in quality. During the week ending 23d instant, 682 tons of ore were sent to custom mills.

Alpha has been sold at $210@$212½; closing at $206. Belcher rose from $160 to $190; dropped again to $155, and then was dealt in at $162½.

Imperial rose from $100 to $105, fell to $93, and then was dealt in at 97@106, closing at $106. The total bullion receipts of this company for the year ending May 31st last, amounted to $1,019,275.91, from 34,735 tons of ore—an average of about $29 per ton. During that period $240,000 ($60 per shnre) were disbursed in dividends to stockholders, leaving on hand a surplus balance of some $25,000 to be carried forward to the credit of tbe new year, commencing 1st instant. Receipts of bullion for the first tbree weeks of this month amounted to $34,000.

Bullion was sold at $57½@55, closing nt $57. Overmnn rose from $25 to $28½, fell to $21, and then sold at $21½@24. Confidence rose from $48 to $65, fell to $47, and was then dealt in at $47@51.

The aggregate sales of Stocks and Legal Tender Notes since Saturday last. amounted to $330,304.

A NEW MINERAL.—We learn from *Cosmos* that a new mineral has been discovered at Oravicza, in the Banat, to which M. Tschermak has given the name "Alloclaso." The mineral is composed of sulphur, arsenic, bismuth and cobalt, in the mode expressed in the formula $Co^6 As^8 S^9$, in which it is supposed that one-fourth of arsenic may be replaced by an equal quantity of bismuth. It forms rhombohedric crystals of a copperish-gray color, found in calcite, and accompanied with acicular arsenical pyrites. Breithaupt has confounded alloclase with gluncodote.

FALLING OFF IN THE OIL YIELD.—It is stated by the Pittsburg *Oil News* that the yield of oil has fallen off nearly one half in Pennsylvania since the first of January last. The cause is chiefly attributed to the excessive tax on crude oil, which effectually shuts off all but the most abundantly paying wells. The proposed new tax law, now under consideration in Congress, abolishes this tax entirely, as it should do.

RAINFALL IN CALIFORNIA.—The Nevada (Cal) *Gazette* chronicles the rainfall at that city during the past season, which it states to have aggregated fifty-six and eleven-hundredths inches. At Grass Valley it was a little less, and at Sacramento it was only a little over sixteen inches. At Sacramento there is generally less rain than in any other section of Northern California, while by far the greatest fall occurs in the Sierra Nevada.

SEALING PATENTS.—A statement is going the rounds of the press to the effect that the quantity of sealing wax now required for one year's consumption in England, for sealing patents for inventions, is upwards of a ton and two hundred weight. In England it is customary to load a patent with a seal weighing from a half pound to a pound, and if this liberal allowance of wax was made in our Patent Office at Washington, our business for the year 1866 would scarcely be done with less than five tons of sealing wax.

TIN ORE IN MAINE.—A company of Eastern capitalists, known as the National Tin Mining Company, with their office at No. 64 Broadway, N. Y. has been organized to work a tin mine in Oxford county, Maine.

QUERY.—Some one inquires through the Pittsburg *Oil News* whether any one has ever found oil flowing from a well which yields fresh water. It has been stated that there is no instance known of fresh water coming up with oil. How is it?

LEAD and zinc veins have been traced through several counties in Tennessee. One vein from Elizabethton, in Carter county, through New Market Valley, and into Anderson county, and continuing to Blount county, Powell's Valley. Lead and zinc are associated together, and are found embodied in limestone strata.

W. T. GARRATT,

City

BRASS AND BELL FOUNDER

Cor. Market and First Sts., opposite Oriental Hotel,
SAN FRANCISCO.
Manufacturer of Brass, Zinc, and Anti-Friction or
Babbet Metal Castings;
CHURCH AND STEAMBOAT
BELLS,
TAVERN AND HAND BELLS AND GONGS,
FIRE ENGINES, FORCE AND LIFT PUMPS,

Steam, Liquor, Soda Oil, Water and Flange Cocks, and Valves of all descriptions, made and repaired. Hose and all other Joints, Spelter, Solder, and Copper Rivets, &c. Gauge Cocks, Cylinder Cocks, Oil Globes, Steam Whistles,

HYDRAULIC PIPES AND NOZZELS

For Mining purposes, Iron Steam Pipe furnished with Fittings, &c. Coupling Joints of all sizes. Particular attention paid to Distillery Work. Manufacturer of "Garratt's Patent Improved Journal Metal."

☞ Highest Market price paid for OLD BELLS, COPPER AND BRASS. ☜ 6tf

GOLVIN'S

American Cow Milker.

Fig. 2

A FEW SAMples of this novel and useful invention have arrived by the last steamer, and are now offered for sale by an agent in this city. It was illustrated and described in the MINING AND SCIENTIFIC PRESS of May 12. The actual operation of the Milker has already been demonstrated in this State. The machine may be seen at this office, where further information can be gained.
June 20th, 1866. 26v12

City College Laboratories,

Southeast Cor. Stockton and Geary sts.

Practical and Analytical Chemistry and Metallurgy.

THOMAS PRICE,
Professor of Chemistry,
(Formerly of the Normal College, Swansea,)

WILL GIVE PRACTICAL INSTRUCTIONS IN QUALITative and Quantitative Analysis and Assaying. The course qualifies students for the application of Chemistry to METALLURGY, MANUFACTURING ARTS, and MINING PURPOSES.

PHARMACEUTICAL and TECHNICAL CHEMISTRY, such as is required by Medical and Pharmaceutical Students, will be taught to such students as may require it.

Course of General Chemistry.

Evening Lectures will be delivered every Tuesday, at half-past seven o'clock, P. M., in the Philosophical Hall of the College, without extra charge to the students in the Institution.

On and after the 15th of February, the Laboratories will be open every day, except Sundays, from 8 A. M. to 5 P. M. For further particulars, address

REV. P. V. VEEDER,
Principal of the City College.
6v12tf Or at 406 California Street.

SACRAMENTO SEMINARY.

BOARDING SCHOOL
FOR YOUNG LADIES,
Tenth Street, between F and G.
SACRAMENTO, CAL.
Session commenced January 8, 1866.
MR. AND MRS. HERMON PERRY,
7v12tf **Principals.**

SANTA CLARA COLLEGE, S. J.,
SANTA CLARA, CAL.
Conducted by the Fathers of the Society of Jesus.

The FIFTEENTH ANNUAL SESSION of this College will commence on

Monday, August 28th, 1865.

TERMS—Tuition in the Classical and Scientific Department; Boarding and Lodging; Washing and Mending of articles washed; School Stationery; Medical Attendance and Medicine; fuel, light, baths, etc., per session of ten months..... $350

For further information and catalogues, apply to the President of the College, or to Rev. A. Maraschi, St. Ignatius College, Market street, San Francisco.
3v11 REV. A. MASNATA, S. J., President.

ANNUAL REPORT
—OF THE—
Pacific Insurance Company.

IN COMPLIANCE WITH THE ACT OF THE LECISLAture of the State of California, entitled "An Act concerning Corporations," passed April 22, 1850, the Pacific Insurance Company of San Francisco makes the following Annual Report:

I.—The amount of the Capital Stock of this Company is SEVEN HUNDRED AND FIFTY THOUSAND DOLLARS, and paid in GOLD.....$750,000

II.—The amount of the Assets is ONE MILLION AND FIFTY-ONE THOUSAND, FOUR HUNDRED AND TWENTY DOLLARS AND THIRTY-SEVEN CENTS..$1,051,420.37

III.—The Company has NO DEBTS.

IV.—The amount of insurance effected during the year, and which remained in force December 31, 1865:
Fire.....$12,973,949
Marine..... 484,403

This Company commenced underwriting Marine Risks, August 1, 1865.

V.—This Company insures against the following risks, viz.: BUILDINGS, HOUSEHOLD FURNITURE, MERCHANDISE, RENTS, LEASEHOLDS, VESSELS IN PORT AND THEIR CARGOES, and other PERSONAL PROPERTY, AGAINST LOSS OR DAMAGE BY FIRE.

Also, on CARGOES, TREASURE, COMMISSIONS, PROFITS, and WAR RISKS, and ON ALL MARINE AND INLAND NAVIGATION RISKS, TO AND FROM ALL PORTS IN THE WORLD.

VI.—This Company will take on any FIRST-CLASS RISK not to exceed $75,000 (the limit fixed by law), and on all large risks will reinsure to an extent consistent with PRUDENCE in other RESPONSIBLE COMPANIES.

J. HUNT, President.
A. J. RALSTON, Secretary.

San Francisco, January 19, 1866.

William Alvord,	S. M. Wilson,	O. W. Bell,
Alex. Weill,	M. Cheeseman,	Chas. Mayne,
Abm. Seligman,	Wm. Hooper,	Lloyd Tevis,
Anson C Stiles,	John B. Newton,	T. L. Barker,
John G. Bray,	Edward Martin,	Jas. De Fremery,
A. Hayward,	D. O. Mills,	Wm. Sherman,
D. W. C. Rice,	H. Hansmann,	John O. Earl,
C. Meyer.	L. B. Benehley,	Alfred Borel,
D. J. Oliver,	Moses Heller,	G. T. Lawton,
Alpheus Bull,	William Scholle,	E. L. Goldstein,
W. C. Ralston,	Louis McLane,	Moses Ellis,
John Wightman,	Oliver Eldridge,	P. L. Weaver,
L. Sachs,	A. B. Forbes,	David Stern.
Frederick Billings,	J. G. Kellogg,	

State of California, City and County of San Francisco, ss. On this nineteenth day of January, A. D. one thousand eight hundred and sixty-six, personally appeared before me, H. S. Homans, a Notary Public, in and for the said City and County, and therein residing, duly commissioned and sworn, A. J. Ralston, who, being duly sworn, did depose and say that he is the Secretary of the Pacific Insurance Company, and that the statements contained in the foregoing Report of the Pacific Insurance Company are true, full and correct.

Sworn and subscribed to before me, this 19th day of January, A. D. 1866. H. S. HOMANS, Notary Public.
5v12-3m

PREMIUMS.

1st Premium, at Sacramento Fair.....1862
1st Premium, at S. F. Bay District....1862
1st Premium at Sacramento.....1863
1st Premium, at San Francisco.....1864
1st Premium, for Cordials.....1864
1st Premium, for Hygienic Bitters....1864
Awarded to
V. SQUARZA.

Eyes! Eyes!! Eyes!!!

DR HENLY, OCULIST AND AURIST, HAS received from Scotland one of the most MIRACULOUS REMEDIES for the benefit of the human eye ever before discovered. It is unparalleled in its effects upon the diseases incident to this organ. It gives wonderful power to the optic nerve, and removes all the granulations from the lids, and all mucous film from the scleroty coat without the use of instruments. In fact, it works like a charm on the Eye, without giving any pain. You feel the effect of the medicine in different parts of the head. It drives the disease back into the system, which is better able to stand it than this tender organ.

Why will you suffer when you can be cured in a few days. Persons who have been blind for ten years have been restored to their sight in a short time by the use of this medicine. I will treat any person's eyes in the State, and if I do not give them relief in a short time, I WILL NOT CHARGE THEM ANYTHING. Office, No. 751 CLAY STREET, opposite the Plaza, San Francisco. 22-v12

International Hotel,
JACKSON STREET,
BETWEEN MONTGOMERY AND KEARNY STS.,
SAN FRANCISCO, CAL.

THIS OLD ESTABLISHED HOUSE IS IN PERFECT order for the accommodation of guests. Persons seeking comfort and economy will find this the best Hotel in the city to stop at. The Beds are new and in good order, and the Rooms well ventilated. The Table will always be supplied with the best in the market.

Prices varying from $1 50 to $2 per day for Board and Room.

FINE BATH HOUSE AND BARBER SHOP ATTACHED TO THE HOUSE.

☞ Teams belonging to the House will be in attendance at all the boats and cars to convey passengers to the House FREE OF CHARGE, and to any part of the city for 50 cents
21v12 F. E. WEYCANT, Proprietor.

INTERNATIONAL HOTEL,
K Street, between Third and Fourth,
SACRAMENTO,

IS NOW ONE OF THE LARGEST AND MOST ELEGANT Houses in Sacramento. It has seventy-five Rooms, which can be had in suites for families, or singly to suit individuals—all new-furnished, large and finely ventilated. No expense has been saved to make it comfortable and pleasant for guests.

Price of Rooms very low. Meals, 25 cents.
8v12-6m B. EISENMENGER.

BRANNAN HOUSE,
(Formerly Vernon,)
J street, between Front and Second streets,
SACRAMENTO.

FIRST-CLASS ACCOMMODATIONS CAN BE HAD.
8v12-3m **MRS. J. DUNN, Proprietress.**

WHAT CHEER HOUSE,
SACRAMENTO.

Fire-Proof Brick Building, corner Front and K Streets, opposite Steamboat Landing.

Meals.....25 cents.
Board, per week.....$4 00
Board and Lodging, per day..... 1 00
Single Rooms..... 50

Railroad Ticket Office and Stage Office on first floor.
7v12-3m **A. J. SENATZ, Proprietor.**

CALIFORNIA
BUILDING AND LOAN SOCIETY
Removal Notice.

THE DIRECTORS OF THE CALIFORNIA BUILDING and LOAN SOCIETY, announce to the public the removal of their business to their

NEW BANKING HOUSE,
California Street, one Door from Sansome.

LOANS.

The Directors propose an extension of their Banking accommodation to the assistance of—

First—The Purchase of Real Estate.
Second—The Erection of Houses.
Third—The Erection of Manufactories.
Fourth—The Building of Sea and River Vessels of all sizes.
Fifth—Mercantile Cash Credits on the Scottish principle, for such time as may be agreed upon.

Under the above general heads, loans will be made for terms of years to correspond with the requirements of parties upon the security of REAL ESTATE, BUILDINGS, SHIPS and MERCHANDISE.

MONTHLY DEPOSITS.

ONE PER CENT. PER MONTH will be allowed on all deposits made at one month's notice of withdrawal.

CURRENT ACCOUNTS.

HALF PER CENT PER MONTH will be allowed on the daily balances to credit of Current Banking Accounts—the same to be ascertained and credited monthly.

REMITTANCES FROM THE COUNTRY
PROMPTLY ACKNOWLEDGED.

INTEREST on all sums commences from the day of deposit.

DEPOSITS of any amount received, from FIVE DOLLARS upwards.

OFFICE HOURS—9 1-2 A.M. to 3 1-2 P.M. daily.
SATURDAY EVENINGS from 6 1-2 to 9 o'clock.

THOMAS MOONEY, President.
W. C. WEIR,
SAMUEL GRIM,
ROBERT LEWELLYN,
JOHN DUNN,
C. A. JANKE,
A. ROSENFIELD,
J. W. McCORMICK,
16v12-3m L. R. TOWNSEND, Secretary.

NEW YORK PRICES.

WATCH REPAIRING AT NEW YORK PRICES.

C. E. COLLINS,
No. 603 Montgomery street, San Francisco.
EXCLUSIVE AGENT
—FOR THE—
AMERICAN
WATCH FACTORY.
A large assortment of these
Superior Watches,
In Gold and Silver Cases,
Constantly on hand, and sold at Factory prices. Also,
ENGLISH AND SWISS WATCHES,
Imported directly from the Manufacturers.
The American Company are now making
VERY FINE WATCHES FOR LADIES.
☞ A large assortment of Gold Chains and Jewelry. 25v10-6m

WATCH REPAIRING AT NEW YORK PRICES.

NEW YORK PRICES.

Mechanical Drawings.

Persons wishing Mechanical Drawings can obtain the services of competent draughtsmen, by applying to this office. je23

A Rare Chance!

A Splendid Business in Alameda County.

FOR SALE AT A GREAT BARGAIN,

400 ACRES OF LAND,

INCLUDING

Landing, Wharf, Three Capacious Warehouses,

Capable of holding 12,000 Tons, which amount of grain was stored and shipped the past year. Connected with said business there is an extensive **Lumber Yard**; sales during last year, two million feet, which sales, and the entire business, can be largely increased.

The above is a rare opportunity for parties desirous of engaging in an active business that will pay a large dividend on the investment. Satisfactory reasons given for selling, and all information desired can be obtained on application by mail, or otherwise, to

G. F. SMITH,
Notary Public and Searcher of Records, Office "Deatty House," San Leandro. 23v12-m

SPLENDID

HOMESTEADS!

IN THE COUNTRY.

Twenty-Two Acre Blocks

Adjoining the beautiful Town of

San Leandro, Harlan's Addition

DUT ONE HOUR'S RIDE FROM SAN FRANCISCO.

Property but a few rods from the Railroad Depot. Good schools, good water, splendid view, free from wind and dust, and the best of soil.

☞ **Title—U. S. Patent.** ☜

A rare chance to buy a beautiful Homestead for your wife and little ones, at a low figure.

—ALSO—

Improved Homesteads and Farms of 20, 50 or 100 Acres,

In Alameda county. The most desirable locations in the State. Apply to or address

G. E. SMITH,
Notary Public and Searcher of Records.
Office, "Deaty House," (directly opposite the Court House,)
San Leandro. 19v12-3m

Occidental Homestead

ASSOCIATION,

Office, 305 Montgomery street, San Francisco.

Capital Stock : : : : : : : $33,600

102 Shares, $33 Each.

THIS ASSOCIATION was formed to enable its members to obtain desirable homestead lots in this city, at a cheap and easy rate, paying for the same by regular monthly installments. For this purpose they have purchased blocks 499, 500, and 501 in the Western Addition to this city, bounded by Devisadero, Pine, Broderick and Clay streets. Subscribers will pay an initiation fee of $5 on each share taken, to form a fund for defraying current expenses, and $11 per month for thirty months, commencing in April, 1866. The property is within three blocks of the Turk Street Railroad, is nearly all on the grade, and is most desirably located for homestead purposes. It is directly east from the lands of the California Homestead Association. The property has been purchased on very reasonable terms, and offers a rare opportunity for investment. A number of fine houses are in process of erection, and streets are being graded near this property, which will greatly increase its value.

When twelve monthly payments have been made, the property will be divided among the members in the usual manner, and each shareholder will receive a contract for a deed to the lot or lots to which he may be entitled, and have the privilege of taking immediate possession of the same. The lots average 27 feet in front by 120 feet in depth. The whole amount due upon any lot may be paid at any time, and discount at the rate of 1½ per cent. per month will be deducted therefrom. Persons wishing to visit the lands of this Association will take the Turk street cars to Devisadero street, and theaca gn northerly along Devisadero to Pine street.

$20,000 of the capital stock is taken, and the banks are open for subscription to the balance, at the office of the Secretary, where the Official Map of the Association can be seen, and all particulars obtained.

The Title to this property is perfect.

J. S. LUTY, Secretary.

Office 305 Montgomery street, corner of Pine, Rooms 2 and 6. 20v12-tf

California Steam Navigation

COMPANY.

Steamer CAPITAL.....CAPT. E. A. POOLE.
" CHRYSOPOLIS.....CAPT. A. FOSTER.
" YOSEMITE.....
" CORNELIA.....CAPT. W. BROMLEY.
" JULIA.....CAPT. E. CONCKLIN.

One of the above steamers leave BROADWAY WHARF, at 4 o'clock P. M. EVERY DAY (Sundays excepted), for Sacramento and Stockton, connecting with light-draft steamers for Marysville, Colusa, Chico, and Red Bluff.

Steamships AJAX, PACIFIC, ORIZABA, CALIFORNIA, ACTIVE and SENATOR, leave, as advertised, for Honolulu, Portland, Oregon, New Westminster, British Columbia, Victoria, V. I., Santa Barbara, San Pedro, and San Diego.

Office of the Company, northeast corner of Front and Jackson streets.

B. M. HARTSHORNE,
13v12 **President.**

Mining Summary.

CALIFORNIA.

Alpine County—

The Silver Mountain *Bulletin*, of June 9th, has the following items: The Illinois California Company in Raymond district, ars in with their 'big tunnel' 280 feet....Ths General Grant Company are in about 325 feet. Their prospects are very flattering....Ths Kohinoor, parallel with the George Washington, is to have n few tons of the croppings worked. The claim is on ths top of the mountain, southwest of the town, and is 2,000 feet above it....The drones in the county are to be made to 'toe the mark,' and develop their claims, or be sold out....The Pennsylvania Company are now cutting across their ledge, in order to determins its thickuess and quality. They are in it over twelve feet, with no indications of the back woll....The difference of opinion regarding ths southern houndary of Buckeye No. 1 and the locators of the South Buckeye, will be amicahly adjusted. Also ths conflict between the locators of the Ophir and South Buckeye....The thirteen tons of rock of the Balaclava claim yielded a trifle over twelve dollars per ton. Had the ore been assorted, the yield would have reached over thirty dollars per ton....There is a report current on the streets that a twenty-stamp mill will be brought in from Gold Hill, and put up in Pennsylvania Cañon within sixty days. ....Buckeye No. 2 is timbering up....B. Pilkington is expected from New York in season to commence operations on the Buckeye No. 1 by July 15th....The Lady Franklin is going to sink on the ledge. It is thought they will reach the pay ore within fifty fset.

Amador County—

From the *Ledger* of June 23d, we glsan the following: The Railroad mine, at Sutter Creek, is steadily improving, both as to the richness of the rock and the width of the vein as they go down. They are now down over two hundred feet, and have a two foot ledge of rich quartz....The shaft on the Golden Gate mine is now 160 feet in depth. The lode retains its full size, and since the introduction of the Prater & Hendy concentrators, is yielding better than ever.

The *Dispatch* of same date, has these items: Capt. J. W. Miller has struck a vein of rich copper ore in the Phœnix. The specimens of ore taken out are said to look as well as those from the Newton or Ione City claims....Ths Butte Ditch Water Company hnd a clean up in their mining claim on Tunnel Hill, nenr Jackson, this week, and realized very good pny for their labor. They have been at work about three months.

A correspondent of same, from Mokelumne Hill, says: Since my last letter there has been some excitement in this vicinity in regard to quartz and other mining operntions. I learn that parties have recently taken up claims near the Golden Gate ranch. Work will be commenced upon some of them immediately.

Calaveras County—

The Copperopolis *Courier*, of June 23d, has the following items: Preparations are making to resume work on the quartz claim of Rathjib & Co., at Lower Calaveritas....Work will soon he resumed on the Fair Play, near San Domingo, in this county....The Telegraph Company's mill, in Chili Gulch, caught fire oue day last week, and was not extinguished until considerable damage had been done to the machinery.

The *Register* says: B. K. Thorn showed us recently five dollars and a half in gold dust, which be obtained from two and a half pounds of quartz, taken from a lead lately discovered at Rich Gulch, nenr the Mokelumne river.

Correspondent of same, at Murphy's, says: The German Ridge Copper Mining Company expect to reach their vein of copper in a few days....The workiuen on the Fair Play have recently struck ore and taken out several tons of rich rock, most of which will pay from four to eight hundred dollars per ton....The Washington continues to pay well with an arastra, the rock being richer and tho vein wider the deeper they get.

The *Chronicle* says: We were shown this week, by Mr. Weil of our town, some of the richest dirt, taken from a claim in old Rich Gulch, in which he is a partner, which we have ever seen in California. A pound and a quarter of the dirt, after being crushed in a mortar, yielded twenty dollars. The vein is five feet in width, and this is said to be a fair sample of the entire vein....From all portions of the county we are in receipt of the most cheering news, and scarcely a day passes without new discoveries being made. At West Point a large number of mills are in successful operation. From the southsrn portion of the county, the intelligence is equally flattering. Mines which have lain idle for years, are now being successfully worked, and new developments are of almost daily occurrence.

Humboldt County—

The *Times* of the 16th inst., says: We learn that two gentlemen from Arcata, while out hunting the other day, discovered another coal mine near Boulder Creek....We learn that the Erwin Davis well is down to the depth of nine hundred and twenty-five feet.

Mariposa County—

The *Gazette*, of the 23d, says: Mining on the Grant is rather on the decline. Ths vein near Mariposn is not worked, and the work on ths Princeton vein has ceased for the present. There is quite a lively time at the Bear Valley mines, but nothing worthy of speciul comment. At Huntsr's Valley, mining is unusually dull. The La Victoire is doiug something, but most others are waiting.

Nevada County—

The *Gazette*, of June 23d, says: The work on the quartz mill of Young & Black, at Eureka, is progressing rapidly, and the mill will be in running order in a few weeks. They havs out two or thres hundred tons of rock, which it is calculated will keep the mill employed until the tunnel is completed.

The Grass Valley *National* has the following: The Eagle Company has commenced operations by starting a tunnel for the Grizzly ledge, which will strike it in about a hundred feet.

The Pioneer Company, at Sshastopol, has resumed work in their tunnel.

Excelsior.—The Meadow Lake *Sun* understands that arrangements have been made by the owners of the Shooting Star ledge, on Old Man mountain, with a San Francisco firm, to erect a twenty-stamp mill near their ledge, as soon as the machinery for that purpose can be had on the premises.

The Pacific Ledge, says a writer in the *Sun*, "has three claims located upon it,—the Pacific, the Confidence, and the Berlin. Assays of Confidence rock have shown from $62 to $400 to the ton. The company is sinking an incline shaft, 17 feet 7, in the clear. It follows the dip of the ledge and embraces its entire width. Hoisting works and a mill will be erected during the present season if the prospects shall warrant the expense. On the Pacific Company's ground a shaft of the same dimensions has been commenced, but was discontinued on account of the water. The Berlin Company have done little beyond the work required by law to hold ths claim."

Placer County—

The *Herald*, of June 23d, says: We saw six hundred pounds of half concentrated sulphurets, at Newcastle the other day, the product of ten tons of crushed rock from the Pacific lead, located in that vicinity. An assay by Kellogg, Hewston & Co., of San Francisco, of the same sulphurets, was shown us, that went over $600 to the ton, principally gold. The sulphurets were about being shipped to San Francisco, to Swansea agents.

The shaft on the Pacific ledgs is now down sixty feet, and the ledge improves in width and quality of rock."

A ledge rich in silver and gold, says the *Stars and Stripes*, was disclosed to view a few days since, by a blast in a cut of the railroad, about thirteen miles above Dutch Flat.

Plumas County—

Ths Quincy *Union*, of the 16th inst., has these items: Bidwell's mill, in Dixie Cañon, recently crushed fifty tons of rock from the Green Mountain quartz ledge, in Cherokee district, near Round Valley, owned by Bachelder & Co., which averaged $40 per ton.... There is a great scarcity of hands to work the quartz mines in the county....The mines in Black Hawk ravine are paying well. Larrison & Co. took out for a two weeks' run, over $1,300....Wentworth & Truck's quartz mill, in Indian Valley, commenced running again last wesk. They are getting out some rich quartz from their ledge....All of the companies at Twslvs Mile Bar are doing well. Droge & Kiser have taken out $2,700 during the last three months....The miuers at Hungarian Hill are all busy at work, with very good prospects for the season. Kelley & Co. have just cleaned one of their sluices, after three weeks' run, and obtained over $700....J. B. McGee, of the Mammoth mills, is getting out some very rich rock from the Mammoth ledge.

Sacramento County—

The Folsom *Telegraph*, of the 23d inst., says: The engine and machinery for a new quartz mill, for the Jersey Blue claim, at White Rock, belonging to Messrs. Palmer & Day, of this place, arrived a few days since, and will be erected immediately. These gentlemen have over four hundred tons of rock ready for crushing, which it is believed will average over fifty dollars per ton....E. G. Winchell, Esq., of Mormon Tavern, and two other men, are the owners of a quartz ledge near Clarksville, about seven miles from this place, which assays over two hundred dollars per ton. The ledge is well defined, is twelve inches wide and is gradually growing wider; the shaft is sunk fifty feet, and they have been crushing rock with an arastra for the past two weeks, and do not intend to clean up until the 4th of July—when they intend to celebrate their good luck.

Shasta County—

The *Courier* says that the sulphuret specimen which recently assayed $600 to the ton, in San Francisco, was from the Potosi lode, at Muletown. The copper ore specimen which accompanied it, and which is spoken of as very fine, was from the Copper Creek discovery, near Trinity Centre....The miners at South Forks have amended the laws of the district so that any one can hold his claim by renewing his notice every ten days—or by working it—as he may elect.

Sierra County—

From the *Mountain Messenger*, of the 23d June, we clip the following: We have been informed that within the past few days some half dozen new locations have been made in Hog Cañon. Specimens of the rock shown us are reported to assay well....When the repairs on the Wheeler mill shall have been completed, we understand it is ths intention of the company to run it as a custom or prospecting mill, for the purpose of giving the locators of the numerous ledges in this vicinity a chance of determining whether their rock will pay or not....Efforts ars beiug made by parties in this place to form an association for the purpose of discovering, locating and prospecting quartz ledges in this vicinity. The plan is to secure money enough by subscription to keep a gang of competent miners at the work of prospecting, each subscriber to share in ths locations made in proportion to the sum contributed....The Union claim, at Alleghany, cleaned up $4,000 after a short run....We have been shown some exceedingly rich rock taken from the Sailor company's ledge, on the hill side just above town. A tunnel has been run in on the ledge, which has every appearance of being extensive as well as rich. The company ars refitting the Wheeler quartz mill, and will commence crushing in about two weeks....Mr. Riggs of this place, who has been at Alleghanytown testing his process of reducing quartz by desulphurization, returned last week. He seems to have been successful, having tried rock from the Twenty-One and Oak Flat companies....The Twenty-One company have got their hurdy-gurdy wheel in operation. It works splendidly, and gives a sufficiency of power far beyond the capacity of the present mill machinery. The company were expected to commence crushing this week....The Oak Flat company have started their old mill again, but do not pan up, intending to work their sulphurets by the new process or send them below for treatment. The rock they are now getting is rich in fine gold, and it is thought no further nssessment need be levied. They have a large quantity of mill rock ready for crushing....We were at the Union mill, which was running on rich looking rock.

Siskiyou County—

Correspondence of the Yreka *Union* says: The claims at Oro Fino are paying well.... Wright & Co. are taking out large pay. Hollenback, of Mugginsville, washed up some $2,000 last week....John Carroll, of French Gulch, is getting big pay....Harper & Co., of Indian Creek, are doing well....The McAdams Creek claims bid fair to pay well this season.

Trinity County—

The *Journal*, of June 23d, says: The persistence and good fortune of Reed, Griffith, Van Matre and others, in the Buckeye scction, is attracting attention to that locality. As a general thing, more prospecting than usual is being dons this season. Men are daily arriving on New River and its tributaries, and the prospect of a large population this summer is certain.

Tulare County—

The Visalia *Delta*, of June 21st, has these items: Mr. J. L. Carter, at White River, has a first-class quartz mill nearly completed nbout three and and a half miles below White River station....The old Water mill, at White River, is taking out about $1,000 per each seventy hours run....Mr. Fleck has a small water power, half a mile below town, working a good crusher and several arastras....Nudnut & Ovens have a water power half a mile below Carter's mill, with which they crush about two tons per day with arastras.

Letter from Havilah to same, says: Mining progresses famously in this and all the surrounding districts. Within the last two weeks six valuable lodes have been discovered in the districts of Clear Creek, Mt. Sinai and Pi-Ute, and two hundred and forty men have come into the three.

The editorial Correspondence of the Mariposa *Free Press*, speaking of Long Tom mine, says: The company have erected a neat 10-stamp mill, have run about seventy days, and taken out already more than enough to pay the purchase money, cost of machinery and expenses of working.

Tuolumne County—

The *Courier* of the 23d has these items:—The Mount Vernon Claim, owned by Messrs. Pitts, Mandeville & Co., yielded last Saturday, as proceeds from one week's crushing in the Monitor mill, the sum of 121½ ounces.... The Deer Creek Claim is paying remarkably well....Last week the Grizzly mill had a run of four days, and cleaned up $1,500. This week the same institutions produced, as the result of six days crushing, the respectable sum of $3,500....Waters & Co.'s mill, near Tuttletown, will commence work again next week. ....Ths new 15-stamp mill of the Sonorn company will commence running next week. The company have 1,560 tons nf quartz on hand ready for crushing.

Yuba County—

Gen Rosecrans and party on Monday, says the Marysville *Appeal*, visited the mines at Brown's Valley. They inspected ths Jefferson, the Pennsylvania and the Dannebroge mills. A grand dinner followed. A bouquet was presented to ths General by the ladies of Brown's Valley. Speeches were made, toasts were drank, and the village school, in a body, marched in, and sang the "Star Spangled Banner." Altogether it was a great occasion.

NEVADA.

Washoe—

The *Enterprise* says the Gould & Curry mill, for the month of May, crushed and amalgamated 3,600 tons of rock, which worked within 11 per cent. of assays. This, we believe, is the largest amount of rock that has ever been worked at this mill for any one month.

Reese River.—

The *Reveille*, of June 16th, has these items: Four certificates of the assay of ores by J. R. Murphy, of the National Bank assay office, have just been laid upon our table. Hudson, $1,058.76 of silver per ton; Holland, $994.36; One Thousand Fine, $4,184.77; Newark, $820. Ths veins from which thess ores were obtained are situated between the Midas mill and the Fernando Wood mine of the Roman Brothers Company....We were shown to-day the certified assay of mineral procnred from the Esperanza ledge, in the Clarendon district, about one hundred and fifty miles southwest of Austin, which yielded at the rate of $711.59 of silver to the ton....The grading for the foundation of a new mill at Kingston, has been nearly completed for the New England and Nevada Consolidated Silver Mining Company. This company purchased the works of the Colfax mill, which they removed and expect to have in running order in 90 days.....The Monte Christo company are to erect a first-class mill forthwith.

The Nye County *News* of the 16th says:—The celebrated Alvarez claims are to be sold by the Sheriff. These mines are undoubtedly the richest in ths country, and in energetic hands can be made to yield vast quantities of bullion. Seventy-five thousnnd dollars was offered last fall for the Santa Elena mine alone. ....The new Knickerbocker mill has started.

Esmeralda—

The *Union* of the 6th has the following:—Seventeen hundred pounds of ore brougbt in by Dr. Fitzhugh and A. J. Rhodes from a new district called the Pahdet, and worked at the Del Monte mill, yielded $103....The Oro Fino company, organized in New York one year since, has a mill at Chrysopolis Point, near Kearsnrge, which will commence running in ten days....At Kearsarge, Paul's mill is running on ore that I learn is paying two hundred dollars per ton, and at Fish Springs they are working free gold ore that pays from $60 to $170 per ton.

Humboldt—

The Reese River *Reveille* gives a description of the Monroe Mine, which we condense: The pay streak varies from six inches to twenty inches in width. The entire body of ore contains gold, much of it paying by mill process five hundred dollars per ton, while the second class has all paid upwards of one hundred dollars per ton. Should it be put through a desulphurizing process it would pay much more. Quite a large quantity of ths ore has been reduced at Hoyt's mill on the Humbolt river, distant twenty miles from the mine, the total expense of hauling and crushing being but thirty-two dollars per ton. As there is no waste rock in the ledge, the Monroe must be considered one of the most valuable gold-bearing mines known on the Pacific coast.

IDAHO.

The Marysville *Express* of June 23d, says: A party with a quartz mill for South Boise left Chico last Tuesday. The party was a "jolly" one. They party took their families with them, together with all the appliances necessary to make the trip a comfortable one—not excepting shooting implements and fishing tackle.

The *Statesman* says:—A reliable gentleman of Owyhee, just returned from New York, took some pains to inquire into the truth of the diamond story that Lyon told about the diamonds when he came out here last fall, and he found it to be false in every particular.... Harrison and Benson mills are now running and crushing rich quartz from many ledges in the vicinity of Rocky Bar.

ARIZONA.

The Reese River *Reville*, of June 7th, says: William T. Grant, a pioneer of Austin, who reached the capital of Arizona, via Pahrana-

gat, has just written a letter from Prescott to a friend in Austin, from which we have extracted several interesting notes. * * "Very little prospecting is being done for new lodes, as the Indians are trouble-some, and the miners generally are contented with what they have. I dont rely much on their judgment of quartz, as they are mostly from Colorado and the sheep ranches of California; there are, however, a few miners from Esmeralda, in Nevada, who have had varied experience in quartz, who express their satisfaction with the prospects of the country. * * Swilling's party, about sixty strong, and well armed and mounted, will start on the 20th instant for the White Mountains, about 250 miles to the eastward. He claims to have been there and worked, and to have taken out gold as high as $50 to the pan, but that the Apaches broke up his camp and drove him off. Everybody seems to confide in his story, and we all believe he will lead the party to good diggings."

MONTANA.

The *Post* of June 9th has the following items: We to-day saw, in the hands of Sam. Holman, a lump of silver weighing one ounce, which was taken from two pounds of the quartz of the Alameda lode. The experience of every day demonstrates more fully the surpassing richness of the gold and silver mines in this immediate vicinity....It five hundred of the men who are loafing round Helena and parts adjacent, would come to Virginia, they could find employment at good wages, in this district without delay. Ordinary hands get $5; bedrock men, $6 to $7, and drifters from $9 to $11, with scarcely any to be had for love or money....The mill at Hot Springs is now ready to commence running....John H. Rogers is once more located in the capital. He is charged with the erection of a 20-stamp mill in French Gulch, Summit district. The building to contain the machinery is to be of stone, and the quartz to be reduced is to be taken from the John How lode. The mill is now at Becton, and will be on the ground as soon as the building is prepared for its reception, if not sooner....Machinery is to be set up on the lodes of the Edgerton company, at once.

Silver Bow correspondent of same paper, says: The placer claims, in the vicinity, are yielding largely; and I hear of one from which, out of one pan of dirt, $60 was obtained. The Silver Bow mining district is not only confined to placer diggings, but has some of the finest quartz ledges that I ever saw; and among them is the Brady ledge. This ledge has a shaft sunk to the depth of forty-five feet, and has a crevice which, at the bottom of the shaft, is about nine feet wide. The rock is both silver and gold bearing. Another good ledge in this district is the Mauritius, owned by Mr. Wm. E. Harris. The rock from this lode is very rich in silver; the crevice is near the surface, about four feet in width, and is well defined.

Helena letter of same says: On the 1st inst., John Bristol cleaned up from a ten hours' run, with four hands, on a bar claim at No 2 below Discovery, in White's Gulch, $1,265; a nugget, almost perfectly round and free from quartz, weighing the odd $265.

Big Indian, Holmes Gulch, and Dry Gulch, are yielding finely in the most tempting looking dust....A miner's wife on Short creek, went out prospecting alone one afternoon, and struck a rich lead of dirt. She took out $300 with a pan in an hour....A nugget of gold was found on Indian creek, weighing $870.

COLORADO.

From the *Journal* of June 5th, we clip the following items: We learn that the DuBois brothers, who have for the last year been prospecting for silver in and around the foot of Long's Peak, have recently put up a smelting furnace in that district....Half a pound of quartz from the Vanderbilt yielded by fire assay the other day, one dollar....The Black Hawk company retorted for the week's run, twenty pounds and a half, worth $5,000.... Four cords of average Bobtail ore, cleaned up and retorted ninety-eight ounces of gold, as the result of their last week's run—worth in currency about $2,000. Owing to a lack of ore, the Holbrook mill has lain idle during the past week. The superintendent informs us that the mine is improving, the crevice gradually widening as they sink on it....The Tennessee tunnel is to be repaired and work resumed in earnest....A prospect was taken yesterday by Mr. Jno. Bennett from two pounds of *iron* from the Missouri City lode, at a depth of ninety-eight feet. Mr. B. obtained fifty-two cents as the result. The shaft is just coming out of the gap, and the ore now obtained is of the first quality of iron. Preparations are now making to take it out in large quantities and have it crushed in one of the old water mills in Missouri City.

The *Register* has these items: Hon. J. T. Lynch has raised fifty thousand dollars working capital for the purpose of developing the Suky lode near Montgomery, Snake river....In a recent run from the ores taken from Sensenderfer's claim on the Bobtail, twenty per cent. by weight of the bullion taken out was shown by assay to be silver....The Congress gold mining company, in Russel Gulch, are working claim No. 1, on the Saratoga lode. They have a 145-foot shaft sunk down to good ore, and feel considerably elated at the prospects ahead....The Noble gold mining company's new 10 stamp mill was started up day before yesterday....Mr. Cheeny, of Lake Gulch, the only man who has not sold out his mill since he brought it to the Territory, will start up again to-morrow.

UTAH.

The *Vedette* of June 14th, says: Probably not less than one hundred thousand dollars' worth of machinery will be in Rush Valley this season, and an equal if not larger amount in Pahranagat—enough to fully test and prove the value of these mines.

The ledges in Rush Valley, Pahranagat and other mining districts in the Territory, *will be fully tested*. The men owning them will erect smelting works and prove whether there is silver enough in them to pay for working at present rates of labor and transportation. The Argenta company, over whose suspension the polygamists rejoice greatly, has never to our knowledge smelted one pound of ore.

Cannel Coal in the United States of Colombia.

Mr. May, an English engineer in the employ of the Colombia government, S. A., in his report published in the official journals of that Republic on October 31st, 1865, gives an account of the discovery in the province of Rio Hacha, of immense deposits of coal "of the variety called cannel;" and proposes that a railroad forty-two miles long, from the mines to the sea be constructed, in order to make the new discovery available. In the course of the report, he gives a very complete description of this species of coal, which we quote from the London *Colliery Guardian* of March 24th:

"Cannel coal is known in mineralogy as a black mineral having usually a slight tinge of grey; its texture is compact, and its fracture even or conchoidal with large cavities; its luster is resinous and glistening; it is sufficiently solid and hard to be cut and polished, and is the least brittle variety of coal. Its specific gravity varies from 1.23 to 1.27. It contains, according to Kirwan, carbon 75.2, bitumen 21.68, hydrogen 21.6, nitrogen 13.7. It burns without softening, with a large bright flame of short duration, leaving a sooty substance; and when the combustion is complete, there is an earthy residue of at least three per cent. Its heating power is the same as coke. Its odor, like that of jet, is not unpleasant. When placed on the fire, it often decrepitates and breaks into angular fragments. It is found in England at Wigan and Whitehaven, also at Gilmeston, in Scotland; there is also said to be a mine at Cape Breton, and a few others of little importance in the United States. It is employed, like jet, for making inkholders, toys, etc. When of fine quality it does not soil the fingers, and it ignites and burns like a candle. It is used in England and the United States for fuel in the houses of wealthy people, either alone or mixed with other coal. It is the best coal known for making gas, and would be universally employed for that purpose, and for the extraction of kerosine, which it yields in abundance, but for its scarcity and high price. It is peculiarly suitable for heating the boilers of locomotives, and all other classes of steam engines, on account of its burning with a free flame. After engineers have done all they can, and have exhausted their skill and ingenuity to perfect the machinery of steamboats, the substitution of cannel for the ordinary fuels employed will give from twenty to twenty-five per cent. more velocity to a vessel. The weight and quantity of cannel coal required to produce a given effect are much less than when ordinary coal is burned; and all the American steamboats whenever high speed is required, use this coal either alone or mixed with other combustibles."

Who Discovered Gold.—Cadmus is said to be the first who discovered gold. Some authors attribute its discovery to Thoas of Thrace; others to Mereury, son of Jupiter; others to Pisus, King of Italy, who having left his country, went to Egypt, where he was chosen king after the death of Mizraim, and received the surname of God of Gold, on account of his discovery. Others say that Eaclis or Cœeus, son of Jupiter, or Sol, son of Oceanus, was the first who discovered gold. Eschyles thinks that Prometheus not only discovered gold but also other metals.

The anti-cholera disinfecting fluid used at Naples, was said to be very effective. Its basis was permanganate of potassium, and which is, in fact, ozone. Its introduction and general appliance has been the work of some British residents, who procured a supply from London.

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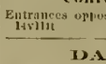
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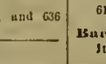
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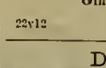
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Rheumatism!!

READ IT! READ IT!!

Sacramento, April 16 h, 1866.

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I have for two years and upwards been afflicted with CHRONIC RHEUMATISM, and until a few weeks ago I have never found anything that afforded me any relief. For three months of the time I was unable to feed myself, and for the last five months my arms have been so bent that I have not been able to dress myself. I was five months at the Warm Springs, at San Luis Obispo, and three months at a Hydropathic Institute in Stockton, and I have been under the care of six different physicians, in the vain hope of relief. About four weeks ago I was induced by a person who had been cured by it to try a bottle of RICHARD'S REMEDY FOR RHEUMATISM, and in less than twelve hours I experienced great relief. In a few days I was enabled to straighten out my arms, and I have been getting better and gaining in strength and flesh ever since. I have now the complete use of all my limbs, and, for the first time in two years, I am out of pain. I do feel for those who suffer as I have suffered, and if they will take my advice, they will lose no time in giving the REMEDY a trial.

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C. W. M. SMITH. W. B. EWER. A. T. DEWEY.

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It is Impossible for editors to know ALL the merits and demerits of their correspondence, consequently the reader must not receive the opinions of our contributors as our own. Intelligent discussion is invited upon all sides and the evidence of any error which may appear will be received in friendship and treated with respect.

San Francisco:

Saturday Morning, June 30, 1866.

Commence with the New Volume.

Next week commences Volume Thirteen of the MINING AND SCIENTIFIC PRESS. We intend to make it better than any of its predecessors. Subscribe at once, and thus assist us in the undertaking.

A LOSS TO THE SCIENTIFIC WORLD.—The Academy of Science, at Chicago, was burned on the 19th instant, and about one-half its valuable collection destroyed. The loss by this fire will be seriously felt by the scientific world. This institution had been some ten years making its collection in natural history, mineralogy, etc., and had brought it to a point which placed it in rank only second to that of the Smithsonian Institute at Washington. The museum contained specimens gathered from every part of the known world, some of which cannot readily be replaced. By reference to our last week's issue, it will be observed that the California Academy of Natural Sciences have adopted a series of resolutions, sympathizing with the friends of science in our sister city in their late loss.

THE MECHANICS' INSTITUTE.—The contract for the new building of this association has been awarded to James J. Doyle, who is to have the same entirely finished and upholstered on the 2d day of December next, for the sum of $42,000. The specification papers were drawn by the architect, Wm. Patton. We believe the building is to be three stories in hight, 75 feet front on Post street, the west line running 107 feet deep towards Market street, and the east line 83 feet.

The old buildings of the Institute, on California street, have been sold to the proprietors of the *Alta California*, for the sum of $25,500. They will remove their library in a few days to No. 636 Market street, between Montgomery and Kearney streets, where the business of the Institute will be transacted until the new building is completed.

PHANTOM PHOTOGRAPHS.—Messrs. Bradley & Rulofson, photographers of this city, have succeeded in perfecting phantom photographs, a very pleasing invention lately introduced at the East for parlor amusement. This new philosophic toy has become very popular, and will doubtless soon be generally introduced into this city. The familiar experiments of the laboratory have, at the present time, a great tendency to become the magic amusements of the drawing room; and perhaps no prettier illusion than the phantom photograph has yet been devised.

FLUID FOR LOOSENING BOILER SCALE.—McKee's Boiler Fluid, for loosening the scale from boilers, is now being introduced for use in this State. This material operates both as a preventive against the forming of "scale," and as a medium for removing it when it has formed. Great excellence and much superiority is claimed for it. It is also claimed that where scale has already formed, it will become loosened, so as to be easily removed in the space of two or three weeks. Testimonials with regard to its efficacy, and full instructions for using it, may be obtained on application to Capt. C. H. Harrison, 517 Front street, sole agent for California.

THE INDEX to volume XII appears to-day, necessarily to the exclusion of more unimportant and less expensive reading matter.

KAOLIN, AND OTHER FIRE CLAYS.

We last week noticed the fact of having received some samples of kaolin from Mr. A. D. Brown, of Virginia City. These samples were prepared from a deposit, recently discovered by Mr. Brown, about three miles distant from that city, and which is said to be seven feet in thickness. W. T. Rickard, an assayer of Virginia City, says he finds, after a careful examination of the mineral, that with a proper admixture of silica it produces a fire brick of a most refractory character, equal, so far as tried, to the best Stowbridge article imported from England, and now selling in Virginia City at sixty cents each. Mr. Rickard also states that when made into crucibles it resists the action of fire, and fluxes as well as the French crucibles, worth now in that city from 20 to 30 cents each. He furthermore expresses the opinion that with the cheapness with which it can be prepared for the market, it can be profitably made into pottery, and used for other purposes in the arts. Mr. Brown informs us that he shall soon commence the manufacture of fire brick.

We have little doubt from the samples sent, and the result of Mr. Rickard's investigations, that this discovery will prove of much value for the manufacture of fire brick and common articles of pottery, in that vicinity, on account of the great cost of freight over the mountains; but for any other purpose, the high price of labor and the limited demand for the products, will hardly allow of the manufacture being made profitable.

We regret that our correspondent did not send us a small sample of the article in its crude state, so that we could have compared it with the kaolin from Sonoma Valley. We infer from Mr. Rickard's certificate that he is obliged to *add his silica* to the crude kaolin, in order to obtain his silicate. The deposit at Sonoma contains quite as large a percentage of silica as is required for the manufacture of either fire brick or crucibles, and, to all appearances, (we are not aware that it has ever been subjected to analysis), is equal to anything which can be found in any part of the world. We have a sample in our cabinet which, in its natural state, judging from the eye alone, is superior to the prepared article sent us from Washoe, and we understand it occurs in inexhaustible quantities, within a few miles of steam navigation with this city. It is a matter of no little surprise that some enterprising capitalists have not ere this endeavored to turn it to some profitable account.

All clays, as they occur in nature, are essentially hydrated silicates of alumina. Their value as fire clays, in the manufacture of pottery, crucibles, fire brick, etc., depends upon their elementary composition, which is always extremely variable. In the same location, often in the same pit and the same specimen, even, great variations are found. In the sample referred to from Sonoma, one portion is as soft as chalk, while another is quite hard and unyielding; accordingly the formulæ which have been employed to express the constitution of fire clays are quite discordant. We give several examples:

The clay used for crucibles in which cast steel is melted at St. Etienne, contains 58.75 silica; 25.10 alumina; 2.51 magnesia; 2.50 sesquioxide of iron; 11.05 water; with traces of lime.

The Stowbridge clay, used for crucibles, 63.30 Si.; 23.30 Al.; 1.80 iron; 10.30 water, with traces of lime.

The finest China clay or kaolin in Europe is found in Cornwall, an analysis of which is given as follows: 46.32 Si.; 39.84 Al.; .36 lime; .44 manganese; .27 water of combination; 12.08 hygroscopic water.

The plasticity of clays depends upon their water of combination; when they have once parted with that they can be no longer molded into vessels. All clays contain also hygroscopic water, which they part with at 100° centigrade, and the loss of which does not affect their plasticity. If we take a piece of clay and dry it in the sun or in an oven heated to 100° centigrade, until it has lost all its hygroscopic water (that which it is capable of absorbing from the atmosphere), and then pound it up, we can, by applying more water, again mold it; but if we heat it to redness, we thereby drive off its water of combination, and it cannot again be made plastic. It will absorb water, but not the least degree of plasticity will appear. Pounded brick, or pottery, for instance, can never be molded. In the manufacture of crucibles, a portion of the material used must be burned clay, or old crucibles, pounded up. This material, mixed with about two-thirds its bulk of raw or unburned clay, is rendered sufficiently plastic for the purpose. The presence of a portion of unburned clay is required to prevent them from cracking when exposed to the high heat of the furnace. The presence of iron pyrites is a fatal objection to the use of any clay for crucibles. The pyrites are readily decomposed by the gases in the furnace, leaving the crucibles porous, and of course useless.

The quality of a fire clay in reference to its fitness for crucibles or fire brick, may be quite satisfactorily tested by thoroughly kneading a small quantity and molding it into such a shape as will present sharp edges. These pieces, when thoroughly dry, should be inclosed in a covered crucible and submitted to a high heat in a blast furnace. If the edges continue sharp and unchanged, the material may be considered good; but if they are much rounded, that may be looked upon as an evidence of incipient fusion; if they are melted, the clay is, of course, worthless. With a little practice, experiments in this manner may be made very satisfactory and reliable. Never build a furnace of untried material. The non-observance of this simple precaution has cost thousands of dollars in California.

SULPHURETS IN GRAVEL DIGGINGS.—A paragraph is going the rounds of the press to the effect that a wonderful amount of gold is being run off in the "sulphurets" from the cement diggings about You Bet, Little York, and other places. The paragraph assumes that enough gold can be obtained from this source to pay for the working of the mines and mills, thus making what are now the gross proceeds of the mines a clear gain to the owners. It is furthermore said that offers of from $50 to $100 per day have been made for these sulphurets. We chanced to be a traveling companion of "the gentleman from San Francisco," who "visited the mines and mills," and who, after causing some experiments to be undertaken, is supposed to have made such liberal offers. We have very good reason for believing that he never did any such foolish thing, and never dreamed from his experiments that the mills can be made to pay expenses from the sulphurets which can be saved. That some free gold is lost by imperfect saving apparatus, and a considerable carried away in the sulphurets, is undoubtedly true; but that there is anything like the loss above described is utter nonsense. If our cotemporaries will write $20 instead of $100, they will be much nearer the mark.

EXCELSIOR STOCK AND EXCHANGE BOARD.—This Board, for the sale and purchase of mining stocks in Excelsior District, Meadow Lake, was organized May 1st, 1866, with twenty-five charter members. A. C. Wightman, Esq., was elected President, and F. F. Patterson, Vice President. On their list of stocks appear 215 companies, all located within the district. They have a large, fine hall, 36 by 52 feet, fitted up in handsome style, with all necessary furniture. The doors are open to the public, and on every night of meeting the hall is crowded with spectators, anxious to witness the progress of sales. At present sales are dull, but few of the stocks being in demand. The California Mill and Mine is the most steady, selling from $90 to $105 per share. If the developments of the summer are favorable, the Board will have lively times, as they represent most every mine in the district. W.

HOWELL'S STEAM BOILER.—In our illustrated description of this boiler given in the issue of May 19, 1866, we unintentionally omitted to give the address of the inventor, which omission is here supplied: "D. C. Howell, Goshen, N. H."

CONTRIBUTED FOR OUR CABINET.

Under this heading we shall continue to mention and describe, according to merit, such specimens of ores, minerals, fossils, curiosities, etc., as may be presented, or forwarded to us by mail or express, prepaid. Each article will be numbered and placed in our cabinet, and recorded with the name of the donor, and the claim or location from whence it came.

MR. WM. R. GALLAGHER, Superintendent of the Crockett mine, near Aurora, sends us a fine specimen of ore from that lode. The ore shows considerable free gold; but of a very low grade on account of the presence of a large percentage of silver. It is also rich in sulphurets, and of a dark gray color from their partial decomposition.

DR. LANSZWEERT, of this city, has also sent us a fine specimen of Kaolin from Sonoma, in this State. The deposit from which this was taken is practically inexhaustible, and the quality of the article very superior. It is as white and clear as the finest plaster of Paris. This deposit, as well as that at Virginia City, is elsewhere noticed at length, in our columns of to-day.

BADLY INFORMED.—Mr. Gladstone, in his late annual financial statement, made on the 3d of May last to the British Parliament, made the following reference to the coal product of the United States, as reported in the English papers:

"There is another country not only as rich in mineral wealth as ourselves, but with a coal surface thirty-seven times greater than the coal surface of this country. I allude to the United States of America, and though *most of the coal there contains so large an amount of anthracite* that it is not fit for steam or for smelting purposes, yet to domestic purposes it is capable of being adapted."

It is surprisingly singular that a man of Mr. Gladstone's position in the world, should exhibit such an utter ignorance on a matter of such general notoriety and importance as the coal product of the United States. It is surprising in the first place that he should be ignorant of the fact that the very best coal in the world for making steam or producing iron—the two chief uses for coal—is anthracite; and in the second place it is still more surprising that he should exhibit such utter ignorance of the character of the vast coal deposit of the United States, as to suppose that our product was chiefly anthracite; when the fact is that out of the 146,000 square miles of our estimated coal area, we have only *forty-seven* square miles of anthracite beds. So far as "anthracite" being an objection, it is that very quality which places American coal so far ahead of English, for making iron and steam. If Mr. Gladstone will consult any English ironmaster on the subject, he will never make such a mistake again.

A NEW RAT TRAP is on exhibition at the What Cheer House, in this city, the invention of Mr. A. A. Fradenburg of Nevada. It is called a "Self-Setting Coercive Trap." It is set by winding up a spring. This spring half turns a door every time a rat nibbles at the bait, and "coerces" the victimized *rodent* into a box from which there is no escape. The trap is then again set and ready for the next victim. It is a very ingenious device, extremely simple, and to all appearances, most effective in its operation.

CALIFORNIA MATCH FACTORY.—This factory is located near the end of the Long Bridge, Potrero, and is driven by steam. W. D. Reed is superintendent. It is now manufacturing matches similar to the celebrated German matches, which burn quickly, give a good bright light, and have no smell. The general business, however, of this establishment is the manufacture of block matches.

TRIAL TRIP OF THE "S. M. WHIPPLE."—The opposition steamer S. M. Whipple was receiving her finishing touches yesterday, and takes her trial trip to-day. She steamed out to the "Point" last evening, her machinery working like a charm.

PETROLEUM LANDS.—The telegraph informs us that upon representation of Mr. Bidwell the Secretary of the Interior has revoked the order withdrawing from market the petroleum lands of California.

From San Bernardino County.—We are permitted to make the following extract from a private letter, dated San Beraardiao, Juan 19th, 1866:

"There is not much valuablo lnnd between hcre and Los Angeles, the valley or region of "El Montc" bcing the principal. This region lies quite low, but is sandy, and once cleared from the willows, with which it is mostly overgrowa, produces finely—particularly of corn. It would produce cotton, no doubt. This side of El Monte is the large runch of Cocomungo, consisting of three leagues of land. There is on this ranch a large vineyard and orchard, both of which could be extended indefinitely, if wanted, as the land is of a dry, gravelly aature, and lays beautifully for irrigation. But what is the nso to raise fruit or make wine when it costs all they ara worth to get them to market. Some day, when railroads pass through this region, it will come out of the kinks and take its place in the front, as a wine, olive and orange producing country. The valley of San Bernardino appears about as large as Napa, from Sebastopol to Suscol, and presents at this time one mass of green. It is nearly every foot of it susceptiblo of irrigation, and produces, of hay in particular, immensely. A man told me he was mowing the third crop, and would surely cut the piece twice more this season. His hay was alfulfa—and yet with all its green grass and shady trees, you are not satisfied with the appearance of things—as in Hogarth's pictures, the animal, the gross, seems to predominate; the country lacks character, soul!"

A New Kind of Fuel.—The Clevelaad (Ohio) *Herald* asserts that some of the lake steamboats are using fish for fuel! Huge 60-pound sturgeons are thrown bead foremost into the furnaces, with a little wood. The oil assists the combustion of the wood; and twenty stargeons are said to bo quite equal to a cord of wood in the production of heat.

Petroleum does aot seem to work well as a lubricator in a cotton mill. The Uaion Mills of Fall River have just had 6,000 cases of cottoa goods throwa back on their baads damaged by petroleum, used as a lubricator in their works. The most careful washing and bleaching has hitherto failed to remove the "spotting" effect of the petroleum oa the colors.

Cow Milker.—We saw Colvin's Americaa Cow Milker tested this week upoa a cow on the place of I. W. Kaox, Oaklaad. It proved its efficiency for milkiag, whea properly applied in good order. If it will stand the test of timo as well, it will certainly prove a valuable as well as novel instrumeat.

The third Heady's Improved Concentrator was shipped this week to the Ophir G. & S. M. Co.'s mill, near Newcastle, Placer county. It was ordered by Messrs. Weltry & Foster, who state that this concentrator is gaiaing in favor with millmea.

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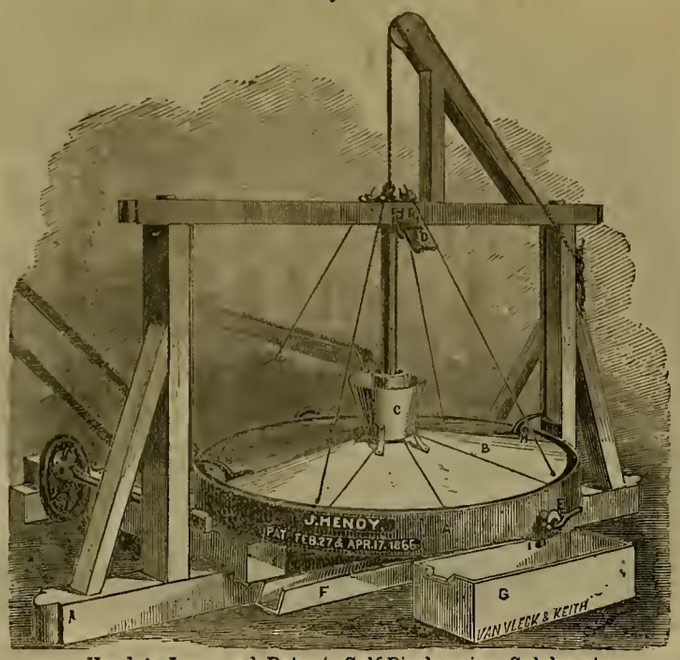

Hendy's Improved Patent Self-Discharging Sulphurets

PRATER CONCENTRATOR

Is Receiving Universal Favor.

Reference is made to the following Mills which are using the Prater Concentrator, with some of the improvements attached. The Self-Discharging Sulphurets has been more recently adopted, and the public attention is called to examine its workings:

STEPHENS' MILL, Humboldt County, Nevada.
CHRYSOPOLIS MILL, " "
U. S. REESE RIVER MILL, Austin, "
UNION MILL, El Dorado County, near Mud Springs.
NEW YORK AND EL DORADO CO., " "
OPHIR G. & S. M. CO., Newcastle, Placer County.
CONEY MILL, Jackson, Amador County.
WINTER'S MILL, Angels Camp, Calaveras County.
CLIO MILL, Jacksonville, Tuolumne County.
CARROL & ASPINWALL MILL, Reese River, Nevada.

And in use in other parts of this State; also in Idaho, Arizona, Colorado and Mexico.

As a further evidence of its worth, orders have been received recently from the proprietors of the following mills, all of whom are using these Concentrators, or have works in the immediate neighborhood of mills using them, viz.:

One Concentrator ordered for the Coney Mill, Jackson, Amador County, by Messrs. Bigelow & Bro., of this city.
Three Concentrators for the Spring Hill Mill, Volcano, Amador County.
Two Concentrators for the Golden Gate Mill, Volcano, Amador County.
Four Concentrators for the Raw Hide Ranch Mill, Sonora, Tuolumne County.
Eight Concentrators for the Benton Mill, Bear Valley, Mariposa Co; ordered by Messrs Dodge & Bro, San Francisco

They may be seen in operation at the GOLDEN STATE FOUNDRY, No. 19 First Street, San Francisco.

☞For explanation of the above engraving, and other particulars, send for a Circular.

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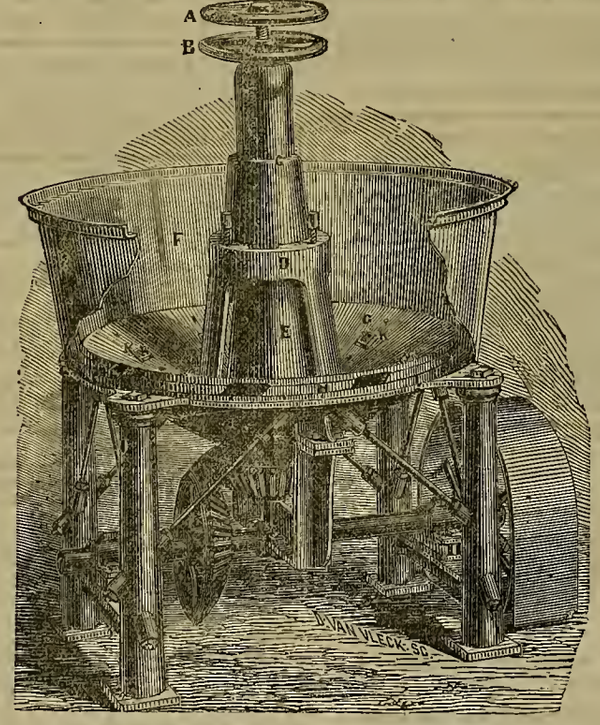

We invite the Mining Public to examine the record of our Machines before adopting any other for producing similar results. They have been in general use for the past three years, during which time they have been repeatedly tried in comparison with every other machine of note, and of a similar nature, and have invariably been adopted in preference; which facts we offer as the most suitable recommendation, and which is attested by the following list of

Principal Mills Using them:

Names of Companies.	Location of Mill.	Names of Companies.	Location of Mill.
OOULD & CURRY	Virginia City, Nevada.	TEAKLE, ROGERS & CO	Nevada.
SILVER STATE REDUCT'N W'KS.	Empire City, "	MELVILLE KELSEY	Silver City, "
OPHIR	Washoe City, "	HUDGIN & FORMAN	Silver City, "
EDWARD McLEAN	Silver City, "	YELLOW JACKET	Empire City, "
SANTIAGO	Zepher Flat, "	BELDIN & GREGORY	Esmeralda, "
RAPHAEL & HUSTED	Gold Hill, "	HECKENDORN	Calaveras Co., Cal.
FRENCH & BESLER	Dayton, "	CARSON CREEK	Calaveras Co., "
HERMAN, KETSCHER & CO.	Carson River, "	CROWN LEAD	Mariposa Co., "
A. SUTRO	Dayton, "	BIG BLUE LEAD	Tulare Co., "
DAVIS & BARRON	Carson City, "	E. T. STEEN	Amador Co., "
PHŒNIX	Silver City, "	EAGLE	Amador Co., "
CHAS. S. COUVER	Silver City, "	IDA MILL	Owens River, "
PIONEER	Silver City, "	ALACRAN	Sonora, Mexico.
L. A. BOOTHE & CO	Virginia City, "	SANTA CLARA	Sonora, "
A. DELAND	Washoe, "	ROSARIO & CARMAN	Sonora, "
SUGAR MILL & MINING CO	Gold Hill, "	LIBERTAD	Sonora, "
RODGERS & GRISSAM	Silver City "	DON JUAN ROBINSON	Sonora, "
ANDERSON & SEAL	Washoe, "		

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Wear a Smile.—Children, which you do? Smile and make others happy, or be crabbed and make everybody around you miserable? You can live among beautiful flowers and singing birds, or in the mire surrounded by frogs and fogs. The amount of happiness you can produce is incalculable, if you will show a smiling face, a kind heart, and speak pleasant words. On the other hand, by sour looks, cross words, and a fretful disposition, you can make hundreds unhappy almost beyond endurance. Which will you do? Wear a pleasant countenance, let joy beam in your eye and love glow on your forehead. There is no joy so great as that which springs from a kind act or a pleasant deed, and you may feel it at night when you rest, and at morning when you rise, and through the day when about your daily business.

The Gold Product.—Mr. A. D. Richardson, in one of his recent letters, says: "Within ten years after the cars run from ocean to ocean, the gold product of the Pacific coast will reach $500,000,000 per annum."

The Daily Evening Tribune made its first appearance in this city on Thursday, P. M. bright and new.

The Press is a large, sixteen page paper, and is truly a valuable assistant to the mining interests of the Pacific Coast.—[Nye County News.

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AN ICE-COVERED CONTINENT.—According to Professor Agassiz, the continent of North America was once covered with ice a mile in thickness. In proof of this conclusion, he says that the slopes of the Alleghany range of mountains are glacier-worn to the very top, except a few points which were above the level of the icy mass. Mount Washington, for instance, over six thousand feet high, and the rough, unpolished surface of its summit covered with loose fragments, just below the level of which glacier marks come to an end, tells that it lifted its head above an ice-covered continent.

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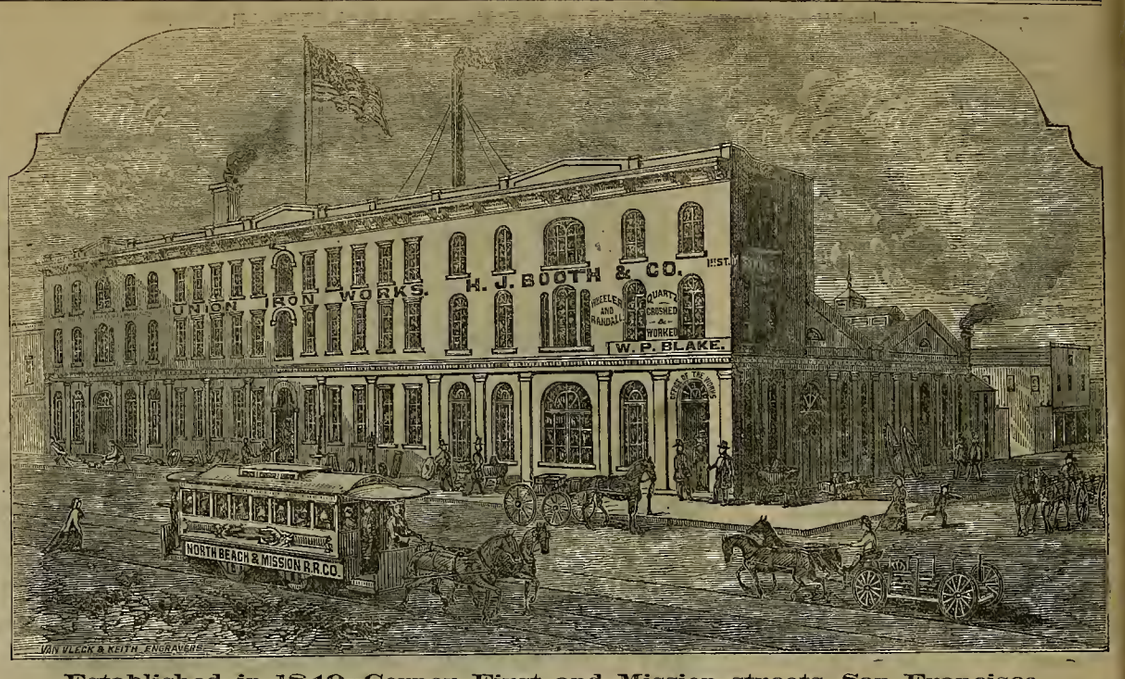
EMPIRE FOUNDRY,

221 Mission street, below Beale, San Francisco, PRACTICAL IRON FOUNDERS, having unequalled facilities for the manufacture of LIGHT FANCY CASTINGS, particular attention will be given to this department. We manufacture School Seats and Desks, Agricultural Implements, Railing, Ship Castings, Stake Irons, and all other kinds of HEAVY and LIGHT CASTINGS, with dispatch. The patronage of the public is respectfully solicited. 24v12-1y



Established in 1849--Corner First and Mission streets, San Francisco.

HAVING INCREASED OUR FACILITIES IN EVERY DEPARTMENT, WE ARE NOW prepared at the shortest notice and at the most reasonable rates, to furnish all kinds and description of Machinery, including Steam Engines, Quartz Mills, Mining Pumps of all kinds, Hoisting Gear, Gas Work, Laundry Machinery, Architectural and Ornamental Castings, Sugar Mills, Saw and Flour Mills, Water Wheels of all kinds, Hydraulic, Hay, Rag, Screw and Drop Presses, Coining Machinery, Pile Drivers, Bark and Malt Mills, and all kinds of Castings.

ENGINES.—Marine Engines, Oscillating and Beam; Stern and Side Wheel Boats, Locomotives, Stationary Engines, Horizontal, Upright, Oscillating and Beam, from six to fifty inches diameter. Also, Scott & Eckart's Adjustable Cut-off Regulator—best in use; W. R. Eckart's Balance Valve for Stationary Engines; Woodward's Patent Steam Pump and Fire Engine.

BOILERS.—Locomotive, Flue, Tubular, Upright, Cylinder and Cornish, and every variety of Boiler Work. All sizes of tubes and pipes for pumps.

AMALGAMATING MACHINERY.—Wheeler & Randall's Improved Tractory Curve Pan, Zenas Wheeler's improved flat bottom pan, Beldin's pan, Veatch's tubs, Prater's concentrators, Waklee's pans, Beers' pan, German Barrels, Arastra Gearing, Chile Mills, Settlers of all descriptions, Retorts of all sizes and shapes, for Silver and Gold, Portable Stamp Mills, Straight Batteries, for wood or iron frames, Dry Crushing Batteries, or machines with the latest improvements, every variety of Stamps, Mortars, Cams, Pans and Tubs. BLAKE'S PATENT QUARTZ CRUSHERS, of all sizes.

OIL BORING TOOLS AND MACHINERY.—Of the latest and most approved construction, made from drawings lately made by Prof. Blake at the oil wells in Pennsylvania. We have the facilities for working gold and silver quartz and other ores, to test their value, by the hundred weight or ton.

Russia Iron Screens, of all degrees of fineness and of all qualities of iron. All work done in the best manner at the lowest cash prices.

H. J. BOOTH. GEO. W. PRESCOTT. IRVING M. SCOTT.

24v12 **H. J. BOOTH & CO.**

Vulcan Iron Works Company

[ESTABLISHED 1850.]

First, Natoma and Fremont Streets.

IRON FOUNDERS,

Steam Engine and Locomotive

BUILDERS,

Boiler Makers, and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently, are now unequaled in the State. Their Boiler Works have also been enlarged correspondingly.

The Company are prepared to execute orders for all classes of Machinery and Boiler Work, such as

Mining, Steamship, and Steamboat Machinery,

Railroad Machinery,	Flouring Mills,
Locomotives,	Quartz Mills,
Car Trucks,	Sugar Mills,
Car Wheels,	Saw Mills,

Housings and Irons; and

Manufacturing Machinery of Every Kind.

Sole Manufacturers of

HEPBURN & PETERSON'S REDUCING PAN AND AMALGAMATOR

BEATH'S AMALGAMATOR;

HESSE & MOORE'S IMPROVED HOWELL QUARTZ CRUSHER;

BAUX & GUIOD'S AMALGAMATOR AND SEPARATOR;

FAUCHERY'S QUARTZ GRINDER AND WATER WHEEL;

JONVAL'S IMPROVED WATER WHEEL;

LEFFEL'S AMERICAN DOUBLE TURBINE WATER WHEELS.

STEVEN'S PISTON PACKING RINGS.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pullies, Water Mill Irons, Hydraulic and Screw Presses, Retorts, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Paling, Stove Ranges, etc., etc.

Quartz Stampers, Shoes and Dies, of the best Hard Iron. Quartz Screens of Russia Iron Punched to Order. 27

LEWIS COFFEY. J. S. RISDON

LEWIS COFFEY & RISDON,

Steam Boiler & Sheet Iron Works.

THE only exclusively Boiler Making establishment on the Pacific Coast owned and conducted by Practical Boiler Makers. All orders for New Work and the repairing of Old Work, executed as ordered, and warranted as to quality.

Old Stand, corner of Bush and Market streets, opposite Oriental Hotel, San Francisco.

SAN FRANCISCO

Foundry and Machine Works,

N. E. Cor. Fremont and Mission streets,

Manufacturers of

Marine and Stationery Engines,

Quartz Machinery, Saw, Flour and Sugar Mills, Mining Pumps, Hoisting Gear, Agricultural Implements, etc.

—ALSO—

Wine, Cider, Cotton and Tobacco Presses

of the latest Improved Patterns.

Brodie's Improved Patent WIND BLAST SEPARATOR, for Dry Crushing; Baux & Guiod's Amalgamator and Separator; Coal Oil Well Boring Machinery complete, on hand.

STEAM ENGINES AND BOILERS,

Of all sizes, constantly on hand; Quartz Mill Shoes and Dies warranted to be made of the best white iron.

Dunbar's Improved Self-Adjusting Piston Packing, requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

MACHINERY, OF ALL DESCRIPTIONS,

Bought, sold, or exchanged. Bolt Cutting and Castings at the lowest market rates.

6v11-1y **DEVOE, DINSMORE & CO**

J. O. HANSCOM } **HANSCOM & CO.,** { T. PENDERGAST.
H. S. SMITH. } { W. W. HANSCOM.

Ætna Iron Works!

Southeast corner Fremont and Tehama streets,

SAN FRANCISCO,

Practical Machinists and Iron Founders,

MANUFACTURE

STEAM ENGINES,

QUARTZ MILL MACHINERY OF ALL KINDS,

SAW MILLS, FLOUR MILLS,

Dunbar's Improved Self-Adjusting

PISTON PACKING,

Now so extensively used in the East and in this State. Requires no springs or screws; is always steam-tight; without excessive friction, and never gets slack or leaky.

HANSCOM'S CRUSHER,

The best of the kind now in use in this State or anywhere else

Wheeler & Randall's New Grinder and Amalgamator,

Which only needs examination to be appreciated.

Tyler's Improved Water Wheel,

Giving greater power, at lower cost, than any wheel in use. Send for one of our circulars, giving full tables.

All Wheels warranted to give the power as set forth, or the money will be refunded.

Sole makers for this coast of the "Pendergast White Iron Stamp Shoes and Dies.

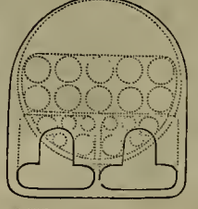
None genuine unless obtained from us. Every one warranted.

Patented Machinery of all kinds will be furnished by us at market prices. Particular attention given to drawings and specifications of machinery, which will be made to order. The patronage of the public is respectfully solicited. 19v12

NEPTUNE IRON WORKS,

Corner of Mission and Fremont Streets,

SAN FRANCISCO.



MARINE,

Locomotive,

And all kinds of

HIGH PRESSURE

Steam Boilers

MADE.

All Boilers guaranteed and tested by U. S. Boiler Inspector before sent out of the Shop, at Shop expense.

All kinds of Sheet Iron and Water Pipe, Coal Oil Stills, Wrought Iron Worms, etc., etc. Manufactured to Order.

6v12-1y **Old Boilers Repaired**

D. CAMERON.

JAMES MACKEN,

COPPERSMITH,

No. 226 Fremont st., bet. Howard & Folsom.

All kinds of COPPER WORK done to order in the best manner. Particular attention paid to Steamboat, Sugar House and Distillery work.

Repairing promptly and neatly attended to. 13v11

BY EXPRESS.—Two cents per copy will be added to our usual rates of subscription (to pay Wells, Fargo & Co.'s tariff) on papers sent by express. If connecting expresses in the interior make additional charges, subscribers must themselves settle the same.

UNION IRON WORKS,

Sacramento.

WILLIAMS, ROOT & NEILSON,

MANUFACTURERS OF

STEAM ENGINES, BOILERS,

And all kinds of Mining Machinery.

Also, Hay and Wine Presses made and repaired with neatness, durability and dispatch.

Dunbar's Patent Self-Adjusting Steam Piston PACKING, for new and old Cylinders, manufactured to order.

Front Street, between N and O streets,

14v11 SACRAMENTO CITY

Miners' Foundry

—AND—

MACHINE WORKS,

First St., between Howard and Folsom Streets,

SAN FRANCISCO.

EVERY description of Iron and Brass Machinery, the BEST and MOST ECONOMICAL, manufactured in the State of California, will be furnished with dispatch at the MINERS' FOUNDRY AND MACHINE WORKS, such as

Steam Engines and Boilers, Flour, Saw and Quartz Mills,

Machinery, Mining Pumps, Amalgamators,

Retorts, Etc., Etc.

Particular attention will be given to the manufacture of Machinery in Sections designed for places of difficult access. Various models of Quartz Crushers, Amalgamators and Water Wheels—some in operation and on exhibition.

*** Parties desiring to test their ores practically, in small quantities, will be afforded ample facilities, FREE OF COST.

All parties desiring accurate and highly finished drawings and superior Machinery, at most reasonable rates, are cordially invited to call before contracting elsewhere.

HOWLAND, ANGEL & KINO

M. GREENBERG. W. H. MOORE.

GREENBERG & MOORE,

Eagle Brass Foundry,

No. 43 First street, San Francisco,

(Between Mission and Market,)

MANUFACTURERS OF all kinds of **Brass** and **Bell Castings;** Force and Lift Pumps; Cocks and Valves of every description made and repaired; Oil Globes, Steam Whistles, Hydraulic Pipe and Nozzles (for Mining purposes). Also, COUPLINGS OF ALL SIZES.

☞ Particular attention paid to Hydraulic Pipes and Nozzles; also, to Ship Work of all descriptions. All orders from the interior will be attended to with promptness and dispatch. 23v12-3m

GEORGE T. PRACY,

MACHINE WORKS,

Nos 109 and 111 Fremont street, near corner of Mission,

OPPOSITE MECHANICS' MILL,

SAN FRANCISCO.

STEAM ENGINE, FLOUR AND SAW MILL And Quartz Machinery, Printing Presses,

—AND—

MACHINERY OF EVERY DESCRIPTION MADE AND REPAIRED.

☞ Special attention paid to Repairing. ☜ qy-3

Familiar Science.

SOUND is usually produced by the vibration of some sonorous substance, which vibration produces motion in the air, called sound waves, which strike upon the drum of the ear—precisely as when you throw a stone into still water a series of concentric waves is produced which roll outward in every direction. Sound travels in the air about thirteen miles a minute; it travels much faster through a solid medium, as iron for instance. In a perfect vacuum there could not be any such thing as sound. If a cannon should be fired in a perfect vacuum, it would give no report. Sound can be heard much farther in a cold day than a warm one, for the reason that the air is denser in cold weather. The report of a pistol is much louder in a valley than on a mountain for the same reason.

Why are copper and iron sonorous, while lead is not? Copper and iron are hard and elastic, while lead is neither, and is therefore not sonorous. Steel is harder and more elastic than iron, and is therefore more sonorous. It is so much so that most large bells are now made of that metal.

Why is not pure copper used in making bells? Because the addition of a small quantity of tin and zinc makes it harder and therefore more sonorous. Hence the composition known as bell-metal.

Why can we not hear as distinctly in misty or snowy weather as in a clear day? Because the air is not of uniform density; the particles of water or of snow obstruct the sound waves. It is for the same reason that partition walls in houses should be filled with shavings or sawdust, when we do not wish the sound of voices or any other confusion to pass through from one room to another.

Why do shavings or saw-dust prevent the passage of sound? Because they present different *media* of various densities for the sound to traverse—first the rare medium of the air of the room, second the dense medium of lath and plaster, third the rarer medium of saw-dust and shavings, then the lath and plaster and air again. This change of medium has a wonderful effect in diminishing the force of sound waves.

We have already, in another number of the paper, told our readers that when the vibrations are less than sixteen in a second of time a continuous sound cannot be communicated to the ear. Sixteen vibrations of a musical chord is therefore the lowest musical or definite sound which can be communicated; any less number of vibrations produces nothing but a succession of hoarse sounds or jars, which conveys no idea of harmony. Now how *great* a number of vibrations is the ear capable of appreciating?

The books tell us (and man has been able to very accurately measure them), that "The human ear is capable of appreciating as many as 24,000 vibrations in *one second* of time; and consequently is able to hear and distinguish a sound which lasts only the twenty-four thousandth part of a second!"

PHILOSOPHY OF THE TOP.—Why does not a top fall when spinning—even though leaning so far as to be past its center of gravity? Few of our younger readers, we presume, will be able to answer this question. It may be explained in this wise: If a heavy ball, held by a string, be whirled rapidly around, its centrifugal force will not allow it to be deflected from its course except by coming in contact with some body capable of quite strong resistance. For instance, if a stout sheet of paper be so held as to deflect it, even to the slightest extent, it will burst through the impediment, and retain its direct whirling motion. Each particle of the top, while kept in rapid revolution around the central axis, is continued in its orbit on precisely the same principle. The axis of revolution is disinclined to change its direction, and keeps it with a force proportioned to the weight of each part of the revolving body and its distance from the axis. This is manifested and kept up for a while even when the top is leaning over so far as to be past its centre of gravity; a condition under which it would fall instanter, if the body was at rest.

WHY DOES INDIAN RUBBER ERASE PENCIL MARKS FROM PAPER?—It is explained thus: The pencil mark consists of carbon rubbed off from the black lead of the pencil; Indian rubber also consists mainly of carbon; and when the carbon of the rubber is brought in close contact with the carbon of the pencil mark in the process of rubbing, the smaller quantity of carbon in the pencil mark is attracted by the larger mass of carbon in the rubber, and thus removed from the paper.

Black lead or plumbago, which forms the marking portion of the pencil, is a mineral substance, composed chiefly of carbon, but with a very small proportion of oxide of iron. Indian rubber is a vegetable substance, which exudes from a tree, and is a compound of carbon and hydrogen, in the proportion of ninety parts of the former to ten of the latter.

THE PACIFIC IRON WORKS,

First & Fremont Sts., between Mission & Howard, San Francisco.

The proprietors of the above Works invite the attention of all parties interested to their greatly improved and unequaled facilities for manufacturing Steam Engines and Boilers, both Marine and Stationary, of any required size and pattern, Quartz Mills, Amalgamating, Pumping and Hoisting Machinery of the most approved construction. Flour, Saw, and Sugar Mills, Water Wheels, &c., &c. Our pattern list is most complete and extensive, embracing the late improvements in all classes of machinery adapted to use on this coast. We would call especial attention to the fact that we have secured the exclusive right of manufacture for the Pacific Coast of the celebrated Greene Engine, conceded to be the most economical and perfect working Engine now in use. We are also exclusive manufacturers of the celebrated

Bryan Battery, Varney's Amalgamators and Separators, Ryerson's Superheated Steam Amalgamators and Rotary Crushers, Stone Breakers, &c. Orders respectfully Solicited.

GODDARD & COMPANY.

Metallurgy.

G. KUSTEL,

Metallurgist and Mining Engineer,

Stevenson House, corner Montgomery and California sts.

Ores Analyzed,

Advice given, and Plans Furnished for working of different Ores. Mines examined and reported upon.

20v11-3m

BOALT & STETEFELDT,

Metallurgists and Mining Engineers

AUSTIN, NEVADA.

Western Branch of ADELBERG & RAYMOND, No. 90 Broadway, New York. 11v11

G. W. MAYNARD. J. H. TIEMANN.

MAYNARD & TIEMANN,

Mining Engineers and Metallurgists,

240 Pearl street, New York,

—AND—

CENTRAL CITY, COLORADO.

19v12-1y

Copper, Lead, Gold, Silver,

Nickel and Cobalt Ore.

The above Ores are either purchased or liberal advances made upon consignments, at the lowest British rates of interest. For particulars apply to

THOMAS PRICE,

Agent for Townshend Wood & Co., Swansea,

No. 405 California Street, San Francisco.

15v10-3m

Copper Ore! Copper Ore!

BOUGHT BY

CONROY & O'CONNOR,

Front, near Pine street, San Francisco.

18v12-tf

To Copper Miners and Others Interested in the Working of Copper Ores.

THE UNDERSIGNED HAVING BEEN APPOINTED Agent and Attorney by N. Haskell, for the sale of his COPPER SMELTING FURNACE, which has proved a perfect success, is prepared to furnish the same to parties having Copper Ore, or will make arrangements to buy their Ore, receivable at their mines. For further particulars, apply to

JOHN N. RISDON,

24v12 At Coffey & Risdon's, San Francisco.

COPPERAS! COPPERAS!

200 BARRELS COPPERAS—SULPHATE OF IRON. For sale, in lots to suit, by

BENJAMIN BRADY,

103 California street,

24v12 Southwest corner of Davis, up-stairs.

MARTIN & CO.,

Office, Stevenson House,

Corner California and Montgomery streets (up stairs).

WILL CONTRACT FOR THE

PURCHASE OF COPPER ORES,

Assaying eight per cent. and upwards of Copper to the We will make advances upon Ores of Copper.

San Francisco, Post Office Box 1259. 22

SODIUM,

Potassium, Magnesium,

And a fresh supply of

PURE CHEMICALS.

Just received and for sale by

JOHN TAYLOR & CO.,

4v12-1m 512 Washington street.

EUROPEAN METALLURGICAL WORKS,

—AND—

Practical Mining School,

Bryant Street, Between Third and Fourth,

SAN FRANCISCO.

THE Proprietors are at all times prepared to work or test Ores sent to this establishment—either in large or small quantities—by such process as may be found best adapted to their chemical character, after a careful analysis has been made. Test lots of Ore adapted to the smelting process attended to. Sulphuret, pyritous, and the (so-called) "rebellious ores," are having especial attention paid to their successful treatment. Assaying in the humid and dry way. Also, refining by cupellation, done at moderate rates.

PRACTICAL MINING SCHOOL.

The proprietors—encouraged by numerous applications from gentlemen desirous of pursuing the study of practical metallurgy—have concluded to admit parties on reasonable terms. Having in their Mill all the necessary appliances for crushing, roasting, amalgamating, smelting, refining and assaying, as also a well extended Laboratory for the analysis of Ores and Minerals, a good opportunity is here offered to acquire a sound practical knowledge of the business.

S. P. KIMBALL, J. R. MURPHY.

10v10

83 Clay Street. PAPER WAREHOUSE AND Printers' Materials CHAS. F. ROBBINS & CO. Clay Street. 83

10-v12

JOHN TAYLOR & CO.

IMPORTERS,

AND DEALERS IN

ASSAYERS' MATERIALS,

Druggists' & Chemists' Glassware,

Photographic Stock, Etc.

512 and 514 Washington Street,

SAN FRANCISCO.

WE are receiving direct from MESSRS. LADD & OERTLING (London) and BEEKER & SONS (Antwerp, Belgium) their superior

ASSAY AND BULLION BALANCES,

And from France and Germany, as well as the Eastern States, FURNACES, CRUCIBLES, MUFFLES, BLOW-PIPE CASES, GOLD SCALES, CHEMICAL GLASSWARE, and every article required for ASSAY OFFICES, LABORATORIES, etc. We have given this branch of our business particular attention, to select such articles as are necessary in the development of the mineral wealth of this coast.

A Full Assortment of DRUGGISTS' GLASSWARE and DRUGGISTS' SUNDRIES, ACIDS and CHEMICALS, constantly on hand.

San Francisco, March 6, 1865. 11v10-tf

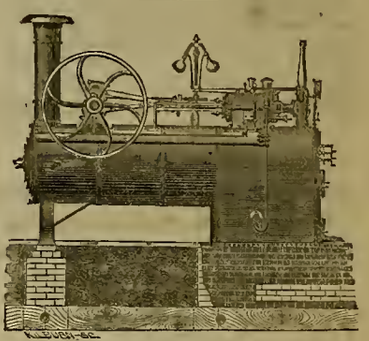
Portable Steam Engines!

"Hoadley's" and "Hittinger's" Make,

HOADLEY'S.

FOUR SIZES,

8, 10, 12, and 15-Horse Power,



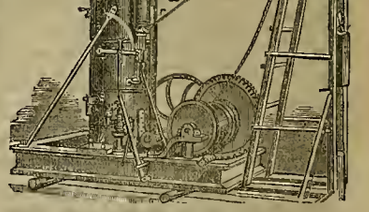
HOADLEY'S.

3 to 40-Horse Power.

HITTINGER'S.

THREE SIZES,

5, 7, and 10-Horse Power



HITTINGER'S.

TWO SIZES,

5 and 7-Horse Power,

COMBINING THE MAXIMUM OF EFFICIENCY, DURability, and Economy, with the Minimum of weight and price.

These Engines are favorably known, a large number being in use on this coast for hoisting, pumping, threshing, milling and mining purposes.

Steam can be got up on these Engines in fifteen minutes after reaching the place of operation, and the time, expense of setting boilers, machinery, and "construction account" saved, (which is often the difference between the successful and unsuccessful prosecution of milling enterprises,) in fact, the portable principle is the pioneer's friend, and enables him to draw engines on their own wheels to his cabin door, and plant on the outermost confines of civilization the saw and grist mill, and it has done and will do more to help subdue the continent than any other of the modern motors which are crowding society and normalizing the world.

All sizes on hand from 3 to 30 horse power, with and without carriages.

Also, Portable Saw and Grist Mills.

For sale by **TREADWELL & CO.,**

18v12 Corner of Front and Market streets

Capitalists, Attention!

QUARTZ MILL & MINING PROPERTY
FOR SALE
In Nevada County.

A NEW 8-STAMP QUARTZ MILL, 7 LEDGES AND 640 acres heavily-timbered Land, near Eureka, Nevada County, are now offered for sale. The Mill is run by steam-power, and is in complete order for business. The ledges, which form the principal value of this property, are all large and well-defined, but require a further outlay of capital, in order to make them remunerative. For the lack of means to properly develop these claims, the present owners are disposed to sell the same for a reasonable price.

Capitalists wishing to engage in mining will find this a splendid opportunity to purchase a property that will bear rigid scrutiny, and offers superior inducements as an investment.

For address and further information, inquire of the Publishers of the MINING AND SCIENTIFIC PRESS, 505 Clay street, San Francisco. 22v12

STANFORD BROTHERS,

REFINERS AND PACKERS
—OF—
COMET OIL!
—FROM—
CALIFORNIA PETROLEUM.

WE WARRANT THIS OIL TO BE SUPERIOR TO ANY Eastern Oil, and any purchaser finding it to be not as represented, can return the same at our expense, and the purchase money will be refunded, together with all charges.

STANFORD BROS.,
21v12-3m 123 California street.

Stationery & Drawing Paper
WAREHOUSE.

GEORGE B. HITCHCOCK & CO.
Blank Book Manufacturers,
Counting House, Insurance & Bank Stationers,
HAVE THE LARGEST AND BEST SELECTED STOCK
—OF—
FINE STATIONERY,
Writing and Drawing Paper
On the Pacific Coast.

TRADE SUPPLIED ON LIBERAL TERMS.
413 and 415 Sansome street,
15v12 San Francisco.

GEORGE E. BROWN,
(Late Assistant Examiner in the U. S. Patent Office.)

HAVING RESIGNED THAT POSITION AFTER A TENure of office of eighteen months, offers his services to

INVENTORS AND THEIR ASSIGNEES,
—AS A—
Patent Solicitor,

He will make Preliminary Examinations in the Patent Office, with a view to ascertain the Patentability of any invention that may be submitted to him for that purpose; will prepare the necessary papers for those who wish to make Applications for

Patents for their Inventions,
—OR FOR—
EXTENSIONS OR REISSUES OF PATENTS

Already granted; will act as an Attorney in presenting Applications at the Patent Office, and in managing them to a final issue; will draw up Assignments; will examine into the condition of Rejected Applications when desired to do so, and undertake the prosecution of such as may be considered patentable, and do whatever else is usually done by Patent Solicitors.

Address, P. O. Box 257, Washington, D.C. 7v12-3m

Pacific Mail Steamship Co's
THROUGH LINE TO NEW YORK,
Carrying the United States Mail.

LEAVE FOLSOM STREET WHARF, AT 11 o'clock A. M. of the following dates, for PANAMA, connecting via Panama Railroad, with one of the Company's splendid steamers from ASPINWALL for NEW YORK.

On the 10th, 18th and 30th of each month that has 30 days.

On the 10th, 19th and 30th of each month that has 31 days.

When the 10th, 19th and 30th fall on Sunday, they will leave on Saturday preceding; when the 18th falls on Sunday, they will leave on Monday following.

Steamer leaving San Francisco on the 10th touches at Manzanillo. All touch at Acapulco.

Departures of 18th or 19th connect with French Trans-Atlantic Co.'s steamer for St. Nazaire, and English steamer for South America.

Departure of 10th connects with English steamer for Southampton, and P. R. R. Co.'s steamer for Central America.

Departure of the 30th connects with English steamer for Tumaco, the port of the new mines.

The following Steamships will be dispatched on dates as given below:

June 30th—GOLDEN CITY.....Capt. Jas. T. Watkins.
Connecting with ARIZONA, Capt. Manry.

Cabin passengers berthed through. Baggage checked through—100 pounds allowed each adult.

An experienced Surgeon on board. Medicine and attendance free.

These steamers will positively sail at 11 o'clock. Passengers are requested to have their baggage on board before 10 o'clock.

For Merchandise and Freight apply to Messrs. WELLS, FARGO & CO.

For passage and all other information, apply at the Pacific Mail Steamship Co's office, corner of Sacramento and Leidesdorff streets.

OLIVER ELDRIDGE, Agent.

New Mining Advertisements.

Big Blue Lead Gold and Silver Mining Company, Cove District, Tulare County, California.—Office, No. 315 Montgomery street, San Francisco.

The Annual Meeting of the Stockholders of the above named Company, will be held at their office, on MONDAY, July 19th, 1866, at 8 o'clock P. M., for the election of Trustees, to serve for the ensuing year.

jc30 M. G. ELMORE, Secretary.

Cosala Silver Mining Company, Cosala District, State of Sinaloa, Mexico.

NOTICE.—There are delinquent upon the following described Stock, on account of assessment levied on the twenty-sixth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Arey, Walter W	463	50	$50 00
Arey, Walter W	588	25	25 00
Armes & Dallam	557	20	20 00
Bayliss, J H	51	5	5 00
Bayliss, J H	52	5	5 00
Bayliss, J H	54	10	10 00
Bayliss, J H	55	10	10 00
Bayliss, J H	56	10	10 00
Bayliss, J H	57	26	25 00
Bayliss, J H	58	40	40 00
Bayliss, J H	59	50	50 00
Bayliss, J H	60	50	50 00
Bayliss, J H	61	100	100 00
Bayliss, J H	62	100	100 00
Cheney, Gardner S	494	5	5 00
Crowley, Timothy	566	11	11 00
Durney, A F	121	103	103 00
Durney, A F	466	131	131 00
Durney, A F	478	12	12 00
Durney, A F	495	40	40 00
Durney, A F	569	30	30 00
Durney, A F	581	100	100 00
Ellison, James	110	5	5 00
Flick, W F	487	25	25 00
Jordan, James	25	5	5 00
Klemhaus, T P	568	20	20 00
Louey, Thomas	628	10	10 00
McComb, Annie R	469	10	10 00
Rice, J M	488	5	5 00
Scholl, Michael	479	10	10 00
Scholl, Michael	480	10	10 00
Scholl, Michael	577	30	30 00
T. Land, H H	105	123	123 00
Toland, H H	122	100	100 00
Thompson, J D	477	103	103 00
Thompson, J D	551	300	300 00
Thompson, J D	552	135	135 00
Thompson, J D	553	50	50 00
Thompson, J D	554	25	25 00
Thompson, D D	555	25	25 00
Thompson, J D	624	20	20 00
Webb, Francis A	627	60	60 00

And in accordance with law, and an order of the Board of Trustees, made on the 26th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the auction rooms of Maurice Dore & Co., 327 Montgomery street, San Francisco, on the 17th day of July, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHARLES BAUM, Secretary.
Office, 510 Battery street, San Francisco, Cal. je30

Hanscom Copper Mining Company, Low Divide District, Del Norte County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 29th day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Burke, M J	45	1½	$ 50
Brown, Geo F	20	1½	50
Delano, Thos S	3	2	60
Glugas, Geo K		100	30 00
Hale, William	27	25	7 50
Lord, W C	65	8½	2 50
Powers, C A		40	12 00
Small, J H		64	19 20
Tarhatt, F B		26	7 80
Thompson, M A		3½	1 00
Wheeler, C F		12½	3 75

And in accordance with law, and an order of the Board of Trustees, made on the 29th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, 609 Market street, San Francisco, on the 16th day of July, 1866, at the hour of 11 o'clock, A. M., of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

S. S. SWEET, Secretary.
Office, No. 609 Market street. jc30

George Washington Gold and Silver Mining Company, Silver Mountain District, Alpine County Cal.—Assessment No. 12.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 26th day of June, 1866, an assessment of one dollar and a half ($1.50) per share was levied upon the capital stock of the said Company, payable immediately, in United States gold and silver coin, to the Secretary, at the office of the Company, only.

Any stock upon which said assessment shall remain unpaid on the 28th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment be made before, will be sold on Monday, the 13th day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of the sale. By order of the Board of Trustees.

W. D. ROOT, Secretary.
Office, 338 Montgomery street, San Francisco.

NOTICE.—At the above meeting of the Board of Trustees, an order was passed making the undersigned General Agent and Attorney in Fact of the Company, with full power to take such steps as he may deem proper, to work the ores of the Company, and further develop the mine; and to that end may employ competent persons, lease or build mills, erect furnaces, enter into, make and let contracts, sign, seal and deliver obligations, and do and perform whatsoever thing else he may deem for the interest of the Company at large, and with power to employ and substitute a Secretary during his absence.

je30 W. D. ROOT.

Lady of the Lake Gold and Silver Mining Company, San Francisco District, Arizona Territory

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 18th day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm. F. Hale	92	100	$25 00

And in accordance with law and an order of the Board of Trustees, made on the 18th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on the 16th day of July, 1855, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

WM. HOLLIS, Secretary.
Office, 302 Montgomery street, San Francisco, Cal. je29

It is filled with reliable, useful and interesting matter and to our miners who wish to understand the theoretical, as well as the practical part of their business, the MINING PRESS will he found an invaluable aid.—[Nye County News

Leland Gold and Silver Mining Company, San Francisco District, Arizona Territory.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 18th day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Wm F Hale	95	100	$25 00

And in accordance with law, and an order of the Board of Trustees, made on the 18th day of May, 1855, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the office of the Company, on Monday, the 16th day of July, 1856, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of salo.

WM. HOLLIS, Secretary.
Office, Room No. 2, 3d floor, 302 Montgomery street, San Francisco, Cal. jc30

Nuestra Senora de Guadelupe Silver Mining Company, Tayoltita District, Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 25th day of June, 1866, an assessment, No. 24, of one dollar ($1) per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, E. J. PFEIFFER, at the office, No. 210 Post street, or to the Treasurer, A. HIMMELMANN, at his office, No. 337 Washington street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 31st day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Saturday, the 18th day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

E. J. PFEIFFER, Secretary.
Office, 210 Post street, San Francisco, Cal. je30

San Marcial Silver Mining Company.—Location of Works: District of Hermosillo, Sonora, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 27th day of June, 1866, an assessment of fifty cents per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 331 Montgomery street, up stairs, San Francisco.

Any stock upon which said assessment shall remain unpaid on the first day of August, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the twenty-second day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

R. N. VAN BRUNT, Secretary.
Office, 331 Montgomery street, San Francisco.

N. B.—Until further notice, all advertisements of this Company will appear in the "Mining and Scientific Press." je30

Sapphire Quartz Mill and Mining Company.—Location: Gold Hill, Storey County, State of Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 22d day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Julio A Bougliaval	2,137	12	$80 00
A Bergerot	2,059	2	10 00
Jesse Cooper	2,112	4	20 00
E Desprez	960	1	5 00
E Desprez	961	1	5 00
E Desprez	962	1	5 00
E Desprez	963	1	5 00
N L Helo	2,091	10	50 00
N L Hele	2,109	5	25 00
Kreyenhagen	2,062	2	10 00
Kreyenhagen	2,066	2	10 00
C Pelletier	990	1	5 00
C Pelletier	991	1	5 00
C Pelletier	992	1	5 00
C Pelletier	993	1	5 00
C Pelletier	994	1	5 00
C Pelletier	995	1	5 00
C Pelletier	996	1	5 00
C Pelletier	997	1	5 00
C Pelletier	998	1	5 00
C Pelletier	999	1	5 00
J H Smyth	2,067	5	25 00
Tissot	2,001	1	5 00
Tissot	2,002	1	5 00
Tissot	2,003	1	5 00
Tissot	2,004	1	5 00
Tissot	2,005	1	5 00
Tissot	2,1x2	5	25 00

And in accordance with law, and an order of the Board of Trustees, made on the 22d day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, on the 17th day of July, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of the sale.

A. KOENIG, Secretary.
Office, Lucas Turner & Co's Building, N. E. Cor. Jackson and Montgomery streets, San Francisco, Cal. je30

Mining Notices--Continued.

Arbitrios Mining Company, Batopilas District State of Chihuahua, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 28th day of May, 1866, an assessment (No. 10) of one dollar and fifty cents ($1.50) per share was levied upon the assessable capital stock of said Company, payable immediately, in United States gold and silver coin, to the Secretary, No. 311 Montgomery street, up stairs.

Any stock upon which said assessment shall remain unpaid on the 12th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 13th day of August, 1866, to pay the delinquent assessment thereon, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

A. MARTINON, Secretary.
Office, 311 Montgomery street, San Francisco, Cal.

N. B.—Until further notice, all advertisements of this Company will appear in the MINING AND SCIENTIFIC PRESS. je2

Arizona Copper Mining Company, Castle County, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the second day of June, 1866, an assessment of forty cents per share was levied upon the capital stock of said company, payable on the fifth day of June, 1866, in United States gold and silver coin, to the Secretary, at his Office, No. 302 Montgomery street, in the city of San Francisco.

Any stock upon which said assessment shall remain unpaid on the seventh day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the twenty-fourth day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

SAMUEL L. C. SWEZEY, Secretary.
Office, No. 302 Montgomery street, San Francisco, California. je9

Notice.—The Annual Meeting of the Stockholders of the ASSURANCE MINING COMPANY, will be held on MONDAY, July 9th, 1866, at 4½ o'clock P. M., in the office of the Company, Room No. 4, 302 Montgomery street.

je23 WM. F. BRANDRETH, Secretary.

Crockett Consolidated Mining Company. Location of Works: District and County of Esmeralda, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the seventeenth (17th) day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
P W Anderson	592	50	$50 00
Edward Brown	605	10	10 00
Edward Brown	607	10	10 00
J. G. Cowell	475	10	10 00
G. A. Coursen	616	10	10 00
G. A. Coursen	617	10	10 00
G. A. Coursen	618	10	10 00
G. A. Coursen	619	10	10 00
G. A. Coursen	620	10	10 00
C. F. Hayward	359	4	4 00
F. Haven	456	10	10 00
L. Kuha	625	50	50 00
L. Kuha	626	45	45 00
V. Noly	614	20	20 00
W. P. Pool	615	400	400 00
W. P. Pool	624	20	20 00
J. W. Pearson	612	10	10 00
Wm. Ready	bal on 643	1	1 00
G. W. Radcliff	551	10	10 00
G. W. Radcliff	552	10	10 00
G. W. Radcliff	563	10	10 00
G. W. Radcliff	568	10	10 00
G. W. Radcliff	569	10	10 00
G. W. Radcliff	574	20	20 00
G. W. Radcliff	575	20	20 00
E. L. Smith	601	50	50 00
George Stewart	621	20	20 00
C. Wilson	612	10	10 00
C. Wilson	613	10	10 00

And in accordance with law, and an order of the Board of Trustees, made on the 17th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of John Middleton & Son, 404 Montgomery street, San Francisco, Cal., on the teath (10th) day of July, 1866, at the hour of 12 o'clock M. of said day, to the highest bidder, for cash in United States gold coin, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.
Office, No. 10 Exchange Building, 713 Montgomery street, San Francisco, Cal. je23

Capitola Gold, Silver and Copper Mining Company, Uvas District, Santa Clara County, Cal.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the 20th day of April, 1856, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
D T Adams	not issued	300	$30 00
H Bish	92	100	10 00
H Bish	93	50	5 00
S Peck	39 to 51 inc.	200	20 00
S Peck	not issued	100	10 00
J E Redman	99	200	20 00
J E Redman	not issued	100	10 00
C E Abbott	63	10	1 00
C E Abbott	65	20	2 00
C E Abbott	66	50	5 00
C E Abbott	not issued	40	4 00

And in accordance with law, and an order of the Board of Trustees, made on the thirtieth day of April, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at the office of the Company, on the second day of July, 1866, at the hour of 2 o'clock P. M., to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

D. R. BECKFORD, Secretary.
Office, No. 731 Clay street, San Francisco, Cal. je16

Diana Gold and Silver Mining Company, Lander County, Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 7th day of June, 1866, an assessment of five dollars per share was levied upon the capital stock of said Company, payable immediately, in United States Currency, to the Secretary, 402 Front street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the 20th day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Friday, the 10th day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

N. C. FASSETT, Secretary.
Office, 402 Front street, San Francisco. je9

Eagle Quartz Mining Company.—Location of Works: Amador County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the fifteenth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
J F Arnold	91	5	5 00
J P Bush	10	100	100 00
John Bollen	53, 90 1-ea	2	2 00
E P Cutter	151	15	15 00
M Eldred	149	1	1 00
John Herzo	144	30	30 00
H S Hudron	61	10	10 00
Miss M Pratt	20	5	5 00
Issac Rowell	8	25	25 00
Eli Schell	173	25	25 00
E D Waters	18	20	20 00
E D Waters	19	20	20 00
E D Waters	9	7	7 00
E D Waters	99	83	83 00
E D Waters	152	15	15 00
A M Waters	171	6	6 00
E A Waters	44	7	7 00
E D Waters, Trustee	185	150	150 00

And in accordance with law, and an order of the Board of Trustees, made on the fifteenth day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the auction rooms of John Middleton & Son, 404 Montgomery street, San Francisco, on the sixth day of July, 1866, at the hour of 12 o'clock M. of said day, to the highest bidder for cash, in U. S. gold coin, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JOHN M. BURNETT, Secretary.
Office, No. 10 Exchange Building, 713 Montgomery street, San Francisco, Cal. je16-2w

Evoca Consolidated Copper Mining Company: Location of Works—Court Hill District, near Black's Ferry, Del Norte County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the fourth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
G. S. Ashmead,	173	50	$12 50
G. S. Ashmead,	238	50	$12 50
F. Collier,	21	112	$28 00
J. H. Stewart,	256	17	$ 4 25
J. H. Stewart,	257	5	$ 1 25
W. F. Williamson,	14	112	$28 00
W. F. Williamson,	15	112	$28 00

And in accordance with law and an order of the Board of Trustees, made on the 4th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Messrs. Olney & Co., at No. 418 Montgomery street, San Francisco, Cal., on the second day of July, 1866, at the hour of 1 o'clock P. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

CHARLES E. ABBOT, Secretary.

Office, 532 Merchant street, Room 3, San Francisco, California. je9

Gold Hill Tunneling Gold and Silver Mining Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

NOTICE.—The Third Annual Meeting of the stockholders of the above named Company, will be held at their office, 415 Montgomery street, San Francisco, Cal., on SATURDAY, the twenty-first (21st) day of July, 1866, at 7½ o'clock P. M., for the purpose of electing Trustees to serve for the ensuing year, and such other business as may properly come before it.

R. WEGENER, Secretary.

N. B.—All stockholders who cannot be present are requested to file their proxies with the Secretary. je23

Gold Hill Tunneling Gold and Silver Mining Company.—Location: Gold Hill Mining District, County of Storey, State of Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment (No. 7) levied on the tenth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Bell, B C	174	25	$25 00
Bell, B C	175	25	25 00
Bourgeois, F Cesar	251	20	20 00
Bogon, L	339	10	10 00
Bogon, L	340	10	10 00
Bogon, L	341	10	10 00
Bogon, L	340	7	7 00
Chantereau, E	55	15	15 00
Cillie, M	285	25	25 00
Cillie, M	293	5	5 00
Cillie, M	294	5	5 00
Cote, Octavo	348	13	13 00
Don Raymond	123	10	10 00
Duval, Charles	281	10	10 00
Estoine, Eugeno	29	15	15 00
Fitch, J R	344	40	40 00
Gaillard, Charles	2	25	25 00
Gaillard, Charles	3	25	25 00
Gaillard, Charles	4	20	20 00
Guichet, F	107	10	10 00
Gaudin, Charles	142	10	10 00
Kornseid, Charles	30	10	10 00
Lamolle, B	92	10	10 00
Lamolle, B	93	10	10 00
Lamolle, B	94	10	10 00
Lamolle, B	95	10	10 00
Lamolle, B	96	10	10 00
Lamolle, B	97	10	10 00
Lamolle, B	98	10	10 00
Lamolle, B	99	10	10 00
Lamolle, B	100	10	10 00
Lamolle, B	101	10	10 00
Lamolle, B	102	10	10 00
Lamolle, B	103	10	10 00
Lamolle, B	104	10	10 00
Lamolle, B	105	5	5 00
Lamolle, Jean	106	25	25 00
Lemarie, F	259	10	10 00
Lemarie, F	284	5	5 00
Lemario, F	296	8	8 00
Lemarie, F	321	5	5 00
Lemaitre, F	270	10	10 00
Lareo, N	287	50	50 00
Monahan, William	343	10	10 00
Pervier, Louis	347	13	13 00
Roncier, F	286	10	10 00
Roncier, F	295	5	5 00
Sajous, Jean	283	10	10 00
Sajous, Jean	292	14	14 00
Serres, Miss Scolg.	147	10	10 00
Yard, Geo M	322	5	5 00
Zadig, Ph.	35	8	8 00

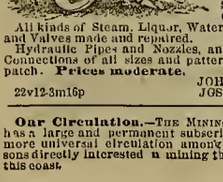
And in accordance with law and an order of the Board of Trustees, made on the tenth day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, by Maurice Dore & Co., No. 327 Montgomery street, San Francisco, Cal., on Tuesday, the tenth of July, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

R. WEGENER, Secretary.

Office, 415 Montgomery street, San Francisco, Cal. je23

California Brass Foundry,

No. 125 First street, opposite Minna,
SAN FRANCISCO.



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22v12-3m16p JOSEPH H. WEED.

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Great Basin Mining Company, Humboldt County, Nevada.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the second day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
H E Highton	273 to 277 100-ea	500	$45 00
H E Highton	203, 204, 206 to 212 279 50-ea	500	45 00
H E Highton	213, 214, 216, 218 to 220, 222 to 226 228 to 232 25-ea	400	36 00
H E Highton	69	20	1 80
H E Highton	280	15	1 35
H E Highton	1, 61, 63 to 68, 77 to 91, 93 to 96 10-ea	270	24 30
H E Highton	48, 54, 55, 56, 59, 60 240 to 242, 257 to 258 5-ea	55	4 95
H Butenop	4	5	45
H Buteuop	152	7	63
H Schurt	5	5	45
W Kreuing	6	10	90
Theo Meetz	7	5	45
Benj Simon	8	5	45
M Fremy	9	10	90
Jno Kohlmoos	10	5	45
H Engelbrecht	12	10	90
T Weizel	13	5	45
A Pielnir	14	5	45
C Schultz	243	100	9 00
C Schultz	244 to 250 10-ea	70	6 30
J F Heinko	16	10	90
W E F Kranse	17 to 20 5-ea	20	1 80
W E F Krauso	22, 23 10-ea	20	1 80
W E F Krause	24 to 27 25-ea	100	9 00
Tong Wo & Co	28	50	4 50
Ellen Watkins	29	5	45
B Henly	30	2	18
Geo G W Hoge	31	10	90
D Buzzolini	32 to 36 20-ea	100	0 00
D Buzzolini	312	100	9 00
C H Voight	37	25	2 25
G O H Taaffe	38	25	2 25
G O H Taaffe	309	200	18 00
H Criteber	39, 40 25-ea	50	4 50
W B Cooko	41	50	4 50
W B Cooke	42	50	4 50
O L Shafter	97	50	4 50
F Marriott	44	25	2 25
F Marriott	331 to 345 10-ea	50	4 50
W H Cherry	71, 72, 74, 75 20-ea	80	7 20
W H Cherry	73, 76 10-ea	20	1 80
E R Highton	467	4265	383 85
E R Highton	281 to 284 100-ea	400	36 00
E R Highton	116, 117, 285, 286 292 to 298 50-ea	550	49 50
E R Highton	118 to 125, 299 to 306 25-ea	400	36 00
E R Highton	126 to 129, 299 to 135 20-ea	180	16 20
E R Highton	323 to 326 10-ea	40	3 60
J McM Shafter	98	25	2 25
C W Howard	99	25	2 25
H M Whitmore	393, 394 500-ea	1000	90 00
H M Whitmore	395, 396 100-ea	200	18 00
Geo Eidenmiller	100 to 104 50-ea	200	18 00
Geo Eidenmiller	104 to 106 20-ea	60	5 40
Geo Eidenmiller	107	5	45
Geo Eidenmiller	259	15	1 85
Jno Palmer	112, 113, 115 25-ea	75	6 75
J S Schuster	108	100	9 00
J S Schuster	109	20	1 80
J S Schuster	110	10	90
J S Schuster	111	5	45
Jno M Bryan	137	10	90
Jno M Bryan	155	15	1 35
Wung Sang	138	5	45
Ah Mon	139	6	54
R W Carter	140	10	90
F P Bird	315	5	45
H Forbes	316	5	45
Jno Spaulding	317	5	45
Wm H Taylor	318	5	45
A P Stanford	333	1600	144 00
G J Boving	337	25	2 25
J P Phillips	338 to 341 25-ea	100	9 00
G Staacke	343	25	2 25
G Staacko	373	10	90
G Staacke	374	5	45
H F Teschemaker	352	800	72 00
James Blake	344	500	45 00
James Blake	345 to 349 100-ea	500	45 00
H F Teschemaker	353	800	72 00
Emily S Tewksbury	365	50	4 50
D Melarky	371	15	1 35
J B Cutter	372	5	45
George Green	375	5	45
Chas Carter	376	5	45
William Williame	377	5	45
H Monk	378	5	45
George French	379	5	45
B M Terrill	380	5	45
C P Fessenden	386	10	90
M H Fowler	387	100	9 00
D Lako	397	100	9 00
D Lako	388 to 392 100-ea	500	45 00
J D Hunt	411	49	4 40
J D Hunt	402 to 410 50-ea	450	40 50
J D Hunt	422 to 441 50-ea	1000	90 00
J D Hunt	451 to 460 100-ea	1000	90 00
J H Ryckman	412 to 421 50-ea	500	45 00
E W Councilman	442		55 00
C Tolman	443 to 447 20-ea	100	0 00
W J Forbes	448	10	90
W J Forbes	449	10	90
John Nash	462	75	6 75
J H Saker	463	50	4 50
George S Fisher	464	50	4 50
Mrs A M Hennell	465	50	4 50
F Billings	470	1600	144 00
Thos Bell	471	1000	144 00
P N McKay	472	1600	144 00
H M Hale	473	800	72 00
H M Hale	474	800	72 00
W F Harrison	475	1600	144 00
S Heydenfeldt	121	1600	144 00
H McAllister	156, 157 10-ea	20	1 80
H McAllister	141 to 144 25-ea	100	9 00
H McAllister	233 to 238 5-ea	30	2 70
H McAllister	460	1450	130 50
Wo Chong	145	5	45
Han Two	146	5	45
H Lund	147	1000	90 00
H Lund	148	240	21 60
H Mohr	151	10	90
J & P Medan	153	8	72
Jno H Saunders	182	800	72 00
Jno H Saundere	183	800	72 00
R M Jessup	189 to 199 100-ea	1600	144 00
W Rhas	251	10	90
H Pflueger	252	10	90
W Herwig	253	10	90
J Wolfson	254	45	4 05
A Claybrgh	255	5	45
Fanny Rosenberg	260	5	45
C Lebman	261	5	45
J Rosenbohm	262	5	45
J Rosenbohm	263	10	90
Caroline Bart	264	5	45
T Hauf	265	25	2 25
J H Van Reed	319, 320 100-ea	200	18 00
J H Van Reed	320	50	4 50
J H Van Reed	321	25	2 25
T Stevens	310	5	45
Chas Watson	311	5	45
Jos J Hall	313	10	90
Jos J Hall	314	15	1 35

And in accordance with law, and an order of the Board of Trustees, made on the second day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at Messrs. Olney & Co.'s, No. 418 Montgomery street, San Francisco, Cal., on the twelfth day of July, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

S. T. KING, Secretary.

Office, 240 Montgomery Street, San Francisco. je16

Humboldt Canal Company.—Office, 716 Montgomery street, Up-stairs.—San Francisco, June 19th, 1866.

Notice is hereby given, that in accordance with the By-Laws, the Annual Meeting of the Stockholders of the above-named Company, for the election of Trustees, and such other business as may be presented, will be held on THURSDAY, July 19th, 1866, at 3 o'clock P. M.

je23 ED. CHEVASSUS.

Lady Bell Copper Mining Company, Low Divide Mining District, Del Norte County California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the fourth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
D Armstrong	196	5	$ 50
D Armstrong	208	5	50
Geo A Ball	123	5	50
A Mehlwitz	44	63	6 30
A Mehlwitz	350	150	15 00
William West	215	20	2 00

And in accordance with law, and an order of the Board of Trustees, made on the 4th day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the salesroom of M. Dore & Co., 327 Montgomery street, San Francisco, on the fifth day of July, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

C. HEYWOOD, Secretary.

Office, 311 Market street, San Francisco, Cal. je16

Latrobe Tunnel and Mining Company.—Location of Works: Virginia City, Storey County, Nevada.

NOTICE.—The Annual Meeting of the Shareholders of the above-named Company, will be held on MONDAY, the second day of July next, 1866, at 3 o'clock P. M., at the office of the Company, S. W. corner Montgomery and California streets, San Francisco, for the election of Trustees to serve the ensuing year, and other business.

R. N. VAN BRUNT, Secretary.

Office, S. W. corner Montgomery and California streets, San Francisco, Cal. je16

Mina Rica de las Flores Mining and Mill Company, Camp Flores, near West Point, Calaveras County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment (No. 12) levied on the eighth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificates.	No. Shares.	Amount.
Anderson & Co., C. A.	42	5	$ 5 00
Anderson & Co., C. A.	43	3	3 00
Anderson & Co., C. A.	44	2	2 00
Anderson & Co., C. A.	151	2	2 00
Anderson & Co., C. A.	152	2	2 00
Anderson & Co., C. A.	153	3	3 00
Anderson & Co., C. A.	162	1	1 00
Anderson & Co., C. A.	163	1	1 00
Anderson & Co., C. A.	164	1	1 00
Anderson & Co., C. A.	227	10	10 00
Anderson & Co., C. A.	228	10	10 00
Anderson & Co., C. A.	229	5	5 00
Bernhammor, H.	625	5	5 00
Bingeon, L.	92	4	4 00
Dumartheray, F.	665	10	10 00
Eklof, S.	670	50	50 00
Enqvist, A.	668	83	83 00
Fogarty, P.	683	67	67 00
Giess, J.	571	5	5 00
Horischer, W.	550	22	22 00
Johnston, J. H.	513	40½	40 50
Konig, G.	511	10	10 00
Lauterwasser, P.	124	5	5 00
Marks, A. C.	159	3	3 00
Mermoud, L.	689	20	20 00
Murphy, J.	46	10	10 00
Murphy, W.	245	5	5 00
Parsons, G.	70	50	50 00
Schenk, M.	140	10	10 00
Schulte, F. W.	105	5	5 00
Schulte, F. W.	106	5	5 00
Schulte, F. W.	190	5	5 00
Schulte, F. W.	191	5	5 00
Schulte, F. W.	192	5	5 00
Schulte, F. W.	193	5	5 00
Schulte, F. W.	218	5	5 00
Schulte, F. W.	616	5	5 00
Streing, Mrs. C.	244	5	5 00
Stoek, J.	663	40	40 00
Thomsen, C.	594	5	5 00
Thomsen, C.	595	5	5 00
Thomsen, C.	596	5	5 00
Veiller, J.	102	10	10 00
Wael, J. H.	30	6	6 00
Wnel, J. H.	166	2½	2 50
Wael, J. H.	301	2½	2 50

And in accordance with law and an order of the Board of Trustees, made on the eighth day of May, 1866, so many shares of each parcel of said stock as may be necessary, will be sold at public auction, at the Office of the said Company, No. 423 Washington street, Room No. 13, up stairs, on the sixteenth day of July, 1866, at the hour of 12 o'clock M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

S. DICKINSON, Secretary.

Office, 423 Washington street, Room No. 13, San Francisco. je23-4w San Francisco, June 10, 1866.

North American Tin Mining Company. Location of Works: Durango, Mexico.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of May, A. D. 1866, an assessment of forty cents per share was levied upon the capital stock of said Company, payable in gold coin of the United States, immediately, to the Secretary, at his office, at 535 Clay street, in the city of San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 9th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. N. THORNE, Secretary.

Office, Room No. 7, at 535 Clay street, San Francisco, California. my26

POSTPONEMENT.—The day for deeming stock delinquent on the above assessment is hereby postponed until the 20th day of July, 1866, and the sale thereof until TUESDAY, the 31st day of July, 1866. By order of the Board of Trustees.

je23 I. N. THORNE, Secretary.

Nonpareil Gold Mining Company, Tuolumne County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the ninth day of June, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable on the eleventh day of June, 1866, in United States gold and silver coin, to the Secretary, at the office of the Company, Merchant's Exchange Building, corner Washington and Battery streets, Room No. 8.

Any stock upon which said assessment shall remain unpaid on the ninth day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Tuesday, the thirty-first day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

S. A. ELDRIDGE, Secretary.

Office, Merchant's Exchange Building, corner Washington and Battery streets, San Francisco, Cal. je16

North Star Gold and Silver Mining Company, Reese River Mining District, Lander County, Nevada.

All persons are hereby cautioned not to purchase or negotiate for the following described stock, sold this day, June 6th, 1866, for delinquent assessment No. 12, of twenty-five dollars ($25) per share:

In Name of	Certificate.	Shares.	Shares Sold.
John W Harker	280	6	6
John W Harker	455	6½	6½

As said stock will not be transferred on the books of the Company. By order of the Board of Trustees.

GOTTLIES BEER, Secretary.

Office, 226 Front street, San Francisco. je9

Ophir of the Colorado Silver Mining Company, El Dorado Canon, Colorado District, Arizona Territory.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 19th day of May, 1866, an assessment of twenty-five cents per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, T. A. MUDGE, 528 Clay street, San Francisco, Cal.

Any stock upon which said assessment shall remain unpaid on the 26th day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 16th day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

T. A. MUDGE, Secretary.

Office, 528 Clay street, San Francisco. my26

Rippon Gold and Silver Mining Company, Silver Mountain District, Alpine County, California.

NOTICE.—There are delinquent upon the following described stock, on account of assessment levied on the eighth day of May, 1866, the several amounts set opposite the names of the respective shareholders, as follows:

Names.	No. Certificate.	No. Shares.	Amount.
Wm DeGraff	9	5	$5 00
Wm DeGraff	10	8	8 00
Daniel Toy	23	30	80 00
Samuel Williams	24	10	10 00
Wm McGill	25	6	6 00
Chas Kather	26	10	10 00
Chas Kather	27	12	12 00
C E Gibbs	28	10	10 00
John Sotts	29	10	10 00
Daniel Toy	30	20	20 00
Chas H Stockum	32	5	5 00
A W Eckell	33	10	10 00
J Simon	34	5	5 00
Isaac Marks	35	5	5 00
Thomas Martin	37	40	40 00
George Patterson	53	5	5 00
George Patterson	54	5	5 00
George Patterson	55	5	5 00
J S S Robinson	56	10	10 00
Thomas Gray	57	10	10 00
D E Sumnerton	58	5	5 00
Jacob Struhin	59	10	10 00
C Kerby	60	7	7 00
Jacob Jettee	61	12	12 00
Mrs Sarah Wlanio	62	10	10 00
M Marks	67	5	5 00
Wm Rippon	not issued	250	250 00

And in accordance with law, and an order of the Board of Trustees, made on the eighth day of May, 1866, so many shares of each parcel of said stock as may be necessary will be sold at public auction, at the office of the Company, on the second day of July, 1866, at the hour of 11 o'clock A. M. of said day, to pay said delinquent assessment thereon, together with costs of advertising and expenses of sale.

JAMES C. DAYLEY, Secretary.

Office, 338 Montgomery street, San Francisco, Cal. je16

Silver Queen Mining Company, Reese River District, Lander County, State of Nevada.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 24th day of April, 1866, an assessment of one (1) dollar per share was levied upon the capital stock of said Company, payable immediately in United States gold and silver coin, to the Secretary, at the office of the Company, No. 608 Merchant street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the 23d day of June, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the 23d day of July, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

I. T. MILLIKEN, Secretary.

Office, 608 Merchant street, San Francisco, Cal. ap28

Sweet Vengeance Gold and Silver Mining Company, Brown's Valley, Yuba County, California.

Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the 21st day of June, 1866, an assessment of one dollar per share was levied upon the capital stock of said Company, payable forthwith, in United States gold and silver coin, to the Secretary, at his office, No. 705 Sansome street, San Francisco.

Any stock upon which said assessment shall remain unpaid on the twenty-third day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Wednesday, the fifteenth day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

F. S. SPRING, Secretary.

Office, No. 705 Sansome street, San Francisco. je23

Union Mattole Oil Company. Location of Works: Humboldt County, State of California.

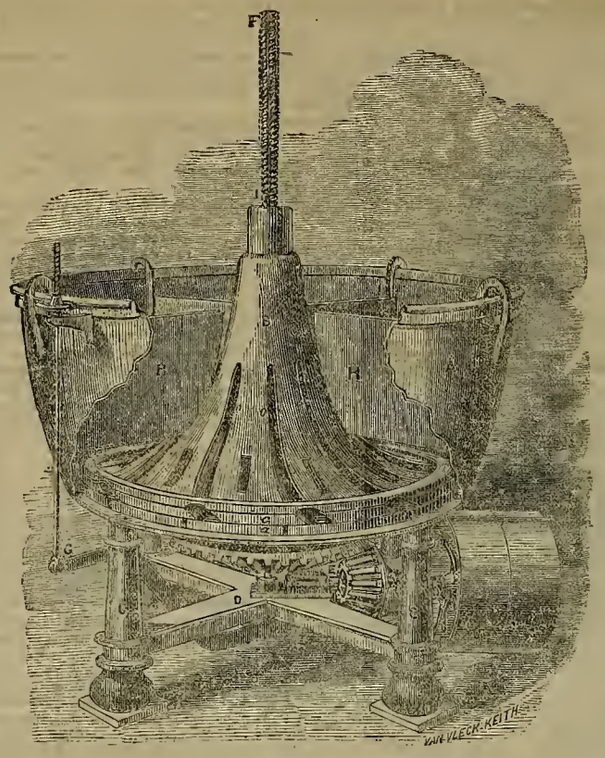
Notice is hereby given, that at a meeting of the Board of Trustees of said Company, held on the fourth (4th) day of June, 1866, an assessment of five dollars ($5) per share was levied upon the capital stock of said Company, payable immediately, in United States gold coin, to the Treasurer, W. C. PARKER, No. 608 Montgomery street, San Francisco, California.

Any stock upon which said assessment shall remain unpaid on the sixteenth (16th) day of July, 1866, shall be deemed delinquent, and will be duly advertised for sale at public auction, and unless payment shall be made before, will be sold on Monday, the twentieth (20th) day of August, 1866, to pay the delinquent assessment, together with costs of advertising and expenses of sale. By order of the Board of Trustees.

C. WINTER, Secretary.

Office, No. 608 Montgomery Street. jy9

THE EXCELSIOR
GRINDER AND AMALGAMATOR.



In the engraving herewith presented, A represents the Rim of the Pan; B, Muller; C, Legs; D, Cross-Frame; E, Gearing; F, Screw; G, Lever; H, Dash-Boards; I, Key; *a*, Dies; *c*, Shoes, and *o*, Openings,

The relative grinding capacities of "The Excelsior" Grinder and Amalgamator, of the Flat Bottomed Pan, and of the Conical Pan *when properly constructed*, are respectively 177, 118 and 132.

That is, the respective mullers being of the same diamcter, same weight, same hardness, and running at the same velocity "The Excelsior Grinder and Amalgamator" will reduce one hundred and seventy-seven tons of ore, the Flat Bottomed Pan one hundred and eighteen tons, and the Conical Pan one hundred and thirty-two tons to the same degree of fineness in the same time.

The wear to the Shoes and Dies at their grinding surfaces in the Excelsior Grinder and Amalgamator, is perfectly uniform, thus securing evenness of reduction to the pulp, as well as steadiness of motion to the muller. Uniform wear of the grinding plates has been attained in no other than that of the Tractory form—nor can it be.

Another property of excellence in this machine is that the metal or substance to be amalgamated passes *direct* from the grinding surfaces into the quicksilver; thus excluding the possibility of its becoming coated with any foreign substances, after having been burnished. It is truthfully said "that the Tractory-formed Pan as a Grinder has no equal, and as an Amalgamator no superior."

As a whole, it is far superior to any other pan in use.

MANUFACTURED AT THE

Union Iron Works and Golden State Iron Works,

WHEELER & RANDALL, Inventors.

The undersigned having had several years of experience in practical quartz mining operations, will ever take great pleasure in furnishing parties interested in mining and machinery any desired information which they may possess.

Union Amalgamator.

This Valuable Invention

IS FAST FINDING ITS WAY INTO GENERAL USE, NOT by means of combination of capital and influence, but on the strength of its own merits, and upon the principle that what is known to be good will be appreciated. Practical men acknowledge the UNION PAN to be scientific, the best, the cheapest, and most profitable. It now stands first on the list of all pans in use for the purpose of

Working Gold and Silver Ores.

It has been found that a low class of ores, also tailings from Mills, Sulphurets, etc., that will not pay to work with the common pans, may be worked with this and obtain large profits. The UNION PAN is manufactured in two sizes, and capable of operating upon large quantities of ore in the most efficient manner.

Parties interested in Quartz Mining, Mills, etc., will find it to their advantage to call and examine for themselves, and see its operation.

Gold and silver ores tested by regular mill process, at moderate cost, by

STRONG & CO.,

San Francisco Foundry, corner Mission and Fremont streets, where orders will receive prompt attention.
15v12-3m

BRUCKNER'S
Mechanical Roasting Furnace

AWARDED A

PREMIUM SILVER MEDAL

—BY THE—

The Mechanics' Institute.

THESE FURNACES ARE NOW MANUFACTURED AFter an improved mode of construction, which

GREATLY SIMPLIFIES THEIR OPERATION,

and afford a much larger oxydizing surface to the action of heat and atmosphere.

The weight of a Furnace nine feet long by four feet in diameter does not exceed one ton.

THE IMPROVED FURNACE

will soon be more fully described and illustrated in the columns of the MINING AND SCIENTIFIC PRESS.

Parties wishing to erect such Furnaces, are requested to leave their orders with

T. KALLENBERG,
19v12 416 Market street, San Francisco.

Machinery.

SAVE YOUR MONEY AND BUY,

For $100!

HUNTER'S

Premium Concentrator!!

Awarded a Silver Medal at the Mechanics' Fair of 1865.

THE ABOVE MACHINE HAS BEEN RECENTLY IMproved and simplified, doing away with all complication and friction, thereby requiring less power and speed. As improved, 125 revolutions per minute is the regular speed required, but any speed varying from 100 to 135 revolutions does not change the results. It is the only machine built on the Pacific coast that is perfectly adjustable for all the different grades of ores, and will save ten per cent. more sulphurets than any Concentrator in use, and is the cheapest, from the following list of prices:

For a single machine of the capacity of five tons in twenty-four hours, as it passes from the battery or pans, $125. For double machines of two, three, or four tables in one frame, each table of five tons capacity, $100.

I have been running machines for the past three months at Grass Valley, therefore I make my assertions from a practical working test, where several of the machines are working. Persons desirous of seeing the machines running, can do so at Empire Mill, Grass Valley, where twelve machines can be seen in operation, or in San Francisco, at 118 Washington street, below Davis, where ALBERT JACOBS will fill their orders promptly.

ANDREW HUNTER,
17v12-tf Inventor.

THE SAN FRANCISCO

BOOT AND SHOE NAILING MACHINE.

THIS MACHINE MAY NOW BE SEEN IN DAILY OPERation at the corner of Stockton and O'Farrell streets, where the inventor may be seen and consulted at all hours.

He is especially anxious that Boot and Shoemakers, Mechanics generally, and all persons interested in the success of California inventions and California manufactures, should call and examine this specimen of California ingenuity.

The proprietor is making arrangements for their manufacture in this city; and he is now ready to contract to furnish the machine to such parties as may be desirous to purchase the same.

E. T. BARLOW.
San Francisco, June 22d, 1866. 25v12

$100 Reward!

THE ABOVE REWARD WILL BE PAID TO ANY ONE who will produce evidence of a failure of any of

Hendy's Improved Self-Discharging Concentrators,

Patented February 27th, and April 17th, 1866—which said amount is deposited for 60 days with Palmer, Knox & Co., No. 19 First street, San Francisco. Send for a circular containing a description of the machine.

J. HENDY, Patentee,
25v12-tf No. 402 Montgomery St., Room 3, 4th Floor. S. F.

Steam Pumps,

FOR DRAINING MINES OR ELEVATING WATER TO ANY HIGHT.

PICKERING'S GOVERNORS

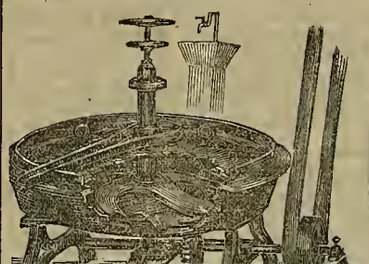
For Steam Engines.

Gifford's Injectors,

For Feeding Boilers.

STODDART'S IRON WORKS,
114 Beale Street, San Francisco.
23v12 3m

BAUX & GUIOD'S
Separator & Amalgamator



Is the most important improvement in mining machinery ever introduced. It was awarded the FIRST PREMIUM at the San Francisco Mechanics' Fair for 1864, where it proved itself to be the best Separator and Amalgamator among all the competitors. Constructed on principles which combine SCIENTIFIC KNOWLEDGE WITH PRACTICAL EXPERIENCE, these Pans extract more gold and silver from their ores than any others in use, as a few hours trial will demonstrate. Mill men will find it to their advantage to employ these pans as Separators, in addition to the ordinary Amalgators now in use, and to re-work their old tailings.

The cost of these pans is inconsiderable, and their structure is such that they can be readily separated in parts convenient for packing on mules. Among the many advantages possessed by BAUX & GUIOD'S Pan, are the following: The trifling cost for attendance; Its small cost; Its portability; The large quantity of pulp it can operate upon in a given time; It may be worked even weeks without stopping, as it is constructed to work continuously; The complete thoroughness of the separation of the rock from the metals and the trifling power required to work them; They can be attached to any ordinary crushing apparatus.

We have the pleasure of referring parties interested to the following parties, who have our Pan in use: Jeffersonian Mining Company, Bowman's Ranch, Nevada county; The French Mill, Nevada City; Crall's Gravel Cement Works, Nevada county; Waltman's Chlorination Works, Nevada, Cal.; Gold Hill Quartz Mill, Washoe.

Manufactured at the Vulcan Iron Works and San Francisco Foundry, San Francisco, and at Heugh & Thom's Foundry, Nevada City.

For further particulars, or to see this Pan in operation, call on or address

J. B. BAUX,
Fremont Street, near Mission, adjoining the San Francisco Iron Works, San Francisco. 4v8-6tf

"Safety Cages."

(PATENT GRANTED.)

MINING COMPANIES

WILL FIND IT TO THEIR INTEREST TO ADOPT the "Berry, Hochholzer & Denver's Safety Cage" in their hoisting works. It requires very little more work to manufacture than the ordinary style of cages—any blacksmith can make it. It has been PROVED TO BE PERFECTLY SAFE, is self-acting and very light, and will, in the item of rope alone, pay for itself in a short time.

The proprietors refer to the following mining companies, among others, that are now using this safety Cage:—Gould & Curry, Savage, Ophir, Mexican, Empire, Overman and Justis.

For particulars and terms, apply to

HUGO HOCHHOLZER,
Virginia City, Nevada,
15v11tf Through Wells, Fargo & Co's Express.

Prater's Patent Concentrator

(Known as HUNGERFORD & PRATER'S Concentrator,)

MANUFACTURED AT THE

San Francisco Foundry and Steam Engine Works.

Corner Fremont and Mission Streets.

All orders promptly attended to.

2v12 **DEVOE, DINSMORE & CO.**

Cotton-Filled Gum Belting,

3, 4, and 5-Ply,

FROM 4 TO 22-INCH,

IN LIBERAL SUPPLY.

FOR SALE BY

GILLIG, MOTT & CO.,

Corner C and Taylor streets,

VIRGINIA, NEVADA,

—AND—

Nos. 148 AND 150 J STREET,

19v12 tf SACRAMENTO, CALIFORNIA.

Pacific Forge Company.

FORGING AND IRON WORK.

THE PACIFIC FORGE COMPANY HAVE JUST ERECTed, in this city, on Fourteenth street, near the machine shop of the San Jose Railroad, a large establishment for the purpose of forging and working in wrought iron. Our hammer is the largest upon this coast, and we are prepared to manufacture, at short notice, all kinds of heavy forgings, car axles, shafts, steamboat cranks, piston-rods, wagon axles, and other similar work. This is the first general shop of the kind erected in this State, and we solicit the patronage of the public. All orders executed at reasonable rates, and with promptness and satisfaction. 19v12 3m

BLAKE'S

QUARTZ BREAKER

Is now extensively used for breaking hard masses of

Quartz or Ores

To a size suitable for stamps. These machines are patented, and are in practical operation in

CALIFORNIA, AUSTRALIA,
WASHOE,
ENOLAND, FRANCE,
—AND—
THE ATLANTIC STATES.

These Machines, or circulars containing further information regarding them, may be obtained of the undersigned. Address,

BLAKE & TYLER,
Box 2677 San Francisco Post Office.

CHAS. T. BLAKE, Idaho City. E. TYLER, Michigan Bluff. WM. P. BLAKE, San Francisco.
4v10

STODDARD'S

CELEBRATED WATER FILTERS!

RENDER RAIN, RIVER, OR SPRING VALLEY WATER perfectly pure and healthy. Three sizes. Price, $12, $15 and $18. For sale by

S. B. STODDARD,
Corner of Battery and Pacific streets.
June 23, 1866. 25v12-3m

FOR SALE

A STEAM ENGINE!

10-INCH CYLINDER, FOUR-FOOT STROKE, IN PERfect Order. Inquire at VULCAN IRON WORKS, 137 and 139 First street, or to

HEYNEMANN & CO.,
26v11tf 311 and 313 California street.

Rubber Belting,

WITH COTTON FILLING.

A FULL ASSORTMENT OF 3 AND 4-PLY, NOW IN store and for sale by

THOMAS H. SELBY & CO.,
22v12 3m Nos. 116 and 118 California street.

FLORENCE
SEWING MACHINES!

COPY OF THE REPORT OF THE COMMITTEE OF AWARDS AT THE FAIR OF THE

AMERICAN INSTITUTE,

New York, 1865,

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TWELFTH VOLUME.—The MINING AND SCIENTIFIC PRESS, published at San Francisco, commenced its twelfth volume on the 6th inst.—[Nye County News,

INEXHAUSTIBLE IVORY.—New Siberia and the Isle of Lackon are, for the most part, only an agglomeration of sand, ice, and elephants' teeth. At every tempest the sea casts ashore fresh heaps of mammoth tusks, and the inhabitants are able to drive a profitable trade in the fossil ivory thrown up by the waves. During summer, innumerable fishermen's barks direct their course to this isle of bones; and in winter, immense caravans take the same route, all the convoys drawn by dogs, returning charged with the tusks of the mammoth, weighing each from a hundred and fifty to two hundred pounds. The fossil ivory thus obtained from the frozen north, is imported into China and Europe, where it is employed for the same purposes as ordinary ivory, which is furnished, as we know, by the elephant and hippotamus of Africa and Asia. The isle of bones has served as a quarry for this valuable material for export to China for upwards of five hundred years; and it has been exported to Europe for upwards of a hundred years. But the supply from these strange mines remains undiminished. What a number of accumulated generations does not this profusion of bones and tusks imply!

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"Accordingly they have bargained with Tho. Stebbein, Junr, to get timber for such a building and frame it, whose length is to be 22 foot and breadth 17 foot and stud 8 foot & halfe: & he, the said Tho. Stebbein, is to carry the frame to place & to naile the clapboards close on both sides and ends, and to shingle the roofe, and to make three light spaces on one side and two lights on one end, and to set up a mantletree, and to set up a run and chimney, and to danb it, and the said Thomas is to have for his worke so done 14 pounds paid him by the towne, and in case it so prove that the said Tho. Stebbein shall have an hard bargaine, it is hereby agreed that he shall have 10 shillings more of the towne."

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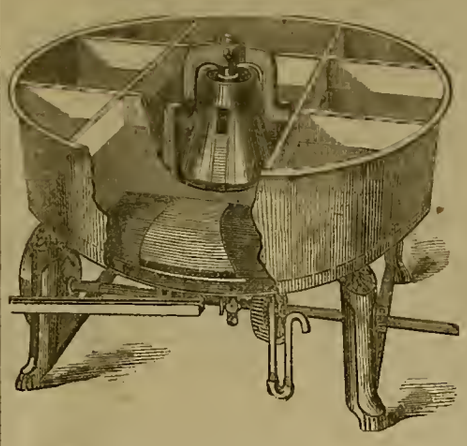
With Palmer's Patent Steam Chamber or Die.



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3d. The "sloshing" motion given to the pulp (by the revolution of the muller under the stationary frame) against the amalgamated copper plates that are fastened to the frame, and by this means catching the fine gold and mercury that will not settle.

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There are over 500 of them in use in California and Nevada, where those interested can see their practical workings.

☞ For further particulars, inquire of ISRAEL W. KNOX, or
W. A. PALMER, Inventors,
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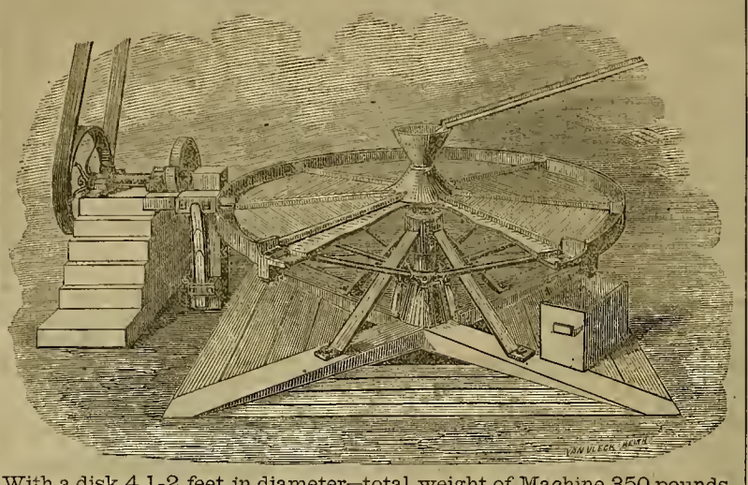

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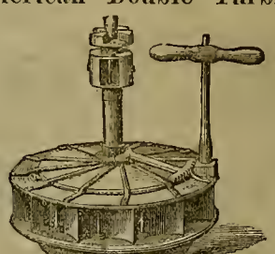

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